

**Meeting of the Federal Open Market Committee on
January 27-28, 2004**

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., starting at 2:00 p.m. on Tuesday, January 27, 2004, and continuing at 9:00 a.m. on Wednesday, January 28, 2004. Those present were the following:

Mr. Greenspan, Chairman
Mr. Geithner, Vice Chairman
Mr. Bernanke
Ms. Bies
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kohn
Ms. Minehan
Mr. Olson
Ms. Pianalto
Mr. Poole

Messrs. McTeer, Moskow, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Broaddus, Guynn, and Parry, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

Mr. Reinhart, Secretary and Economist
Mr. Bernard, Deputy Secretary
Ms. Smith, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Mr. Connors, Ms. Cumming, Messrs. Fuhrer, Hakkio, Howard, Madigan, Rasche, Slifman, Sniderman, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Mr. Ettin,¹ Deputy Director, Division of Research and Statistics, Board of Governors

Messrs. Oliner and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

¹Attended Wednesday's session only.

Messrs. Clouse,¹ and Whitesell, Deputy Associate Directors, Division of Monetary Affairs, Board of Governors

Mr. Kamin and Ms. Zickler,² Deputy Associate Directors, Divisions of International Finance and Research and Statistics, respectively, Board of Governors

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

Mr. Skidmore, Special Assistant to the Board, Office of Board Members, Board of Governors

Messrs. Nelson and Wood,² Senior Economists, Divisions of Monetary Affairs and International Finance respectively, Board of Governors

Mr. Carpenter,² Economist, Division of Monetary Affairs, Board of Governors

Mr. Luecke, Senior Financial Analyst, Division of Monetary Affairs, Board of Governors

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

Messrs. Eisenbeis, Evans, Goodfriend, Ms. Mester, Messrs. Rolnick and Rosenblum, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Chicago, Richmond, Philadelphia, Minneapolis, and Dallas, respectively

Messrs. Elsasser and Rudebusch, Vice Presidents, Federal Reserve Banks of New York and San Francisco. respectively

¹Attended Wednesday's session only.

²Attended portion of meeting relating to the Committee's review of the economic outlook.

**Transcript of the Federal Open Market Committee Meeting on
January 27-28, 2004**

January 27—Afternoon Session

CHAIRMAN GREENSPAN. Good afternoon, everybody. I'll call on Governor Ferguson.

MR. FERGUSON. Thank you. The first order of business is to elect a Chairman and Vice Chairman of the Committee to serve until our first meeting of 2005. The floor is open to nominations for both of those positions. Maybe Governor Kohn would like to make a nomination. [Laughter]

MR. KOHN. I've been in the undecided category for a long time. Today's the day to make a decision.

MR. FERGUSON. We can't have a primary, though. Why don't you put forth your nominations so we can move on?

MR. KOHN. I nominate Alan Greenspan to be Chairman and Tim Geithner to be Vice Chairman of the Committee.

SEVERAL. Second.

MR. FERGUSON. Any objections? Any other nominations? Hearing no objections and no other nominations, by acclamation we have a newly elected Chairman and Vice Chairman to serve for the year. Congratulations!

CHAIRMAN GREENSPAN. Thank you. [Laughter]

MR. FERGUSON. Democracy moves quickly.

CHAIRMAN GREENSPAN. I understand that. With respect to staff officers, I'll call on our Secretary to read the nominees.

MR. BERNARD. The list of proposed officers is as follows:

Secretary and Economist	Vincent Reinhart
Deputy Secretary	Normand Bernard
Assistant Secretary	Michelle Smith
General Counsel	Virgil Mattingly
Deputy General Counsel	Thomas Baxter, Jr.
Economist	Karen Johnson
Economist	David Stockton

Associate Economists from the Board	Thomas Connors
	David Howard
	Brian Madigan
	Larry Slifman
	David Wilcox

Associate Economists from the Reserve Banks	Christine Cumming, proposed by President Geithner
	Jeffrey Fuhrer, proposed by President Minehan
	Craig Hakkio, proposed by President Hoenig
	Robert Rashe, proposed by President Poole
	Mark Sniderman, proposed by President Pianalto

CHAIRMAN GREENSPAN. Are there any objections? If not, so ordered. We now need to reaffirm the selection of the Federal Reserve Bank of New York as the Bank to execute transactions for the System Open Market Account.

MR. FERGUSON. I move that we select the Federal Reserve Bank of New York to execute transactions for the System Open Market Account.

CHAIRMAN GREENSPAN. Without objection. We have a memo from Mr. Kos on the Authorization for Domestic Open Market Operations. Do you have any further comments on the memo, Dino?

MR. KOS. One amendment to the authorization is proposed, and I think the memo speaks for itself on that. I'd be happy to answer any questions.

CHAIRMAN GREENSPAN. If there are no questions, so be it. We obviously forgot to grant Dino the authority to act in the capacity in which he just acted. So I will ask someone to move the reaffirmation of Dino Kos as the Manager of the System Open Market Account.

SPEAKER(?). So moved.

CHAIRMAN GREENSPAN. Is there any objection? If not, so ordered. Now we'll go through a regular review of the Foreign Currency Authorization, the Foreign Currency Directive, and the Procedural Instructions with Respect to Foreign Currency Operations. Again, I call on Mr. Kos.

MR. KOS. I recommend that the Committee reaffirm those three documents as they currently stand. Again, I'd be happy to answer any questions.

MR. POOLE. Mr. Chairman, I have a question and a comment.

CHAIRMAN GREENSPAN. Certainly.

MR. POOLE. I didn't see a reference in the memo to a warehousing limit, but maybe I missed it. Is there a dollar limit on warehousing that this Committee votes on?

MR. KOS. There is a \$5 billion warehousing limit, which is a part of the package of authorizations and instructions under which we operate. That limit was mentioned in the memo.

MR. POOLE. That's in there. So there's a \$5 billion limit?

MR. KOS. That's right. The Committee voted to revert to a limit of \$5 billion in 1997 after it had been raised from \$5 billion to \$20 billion in 1995 to facilitate U.S. participation in the program to aid Mexico.

MR. POOLE. If I may, Mr. Chairman, talk just a little about that?

CHAIRMAN GREENSPAN. Certainly.

MR. POOLE. I spent a lot of time digging into the history of this, reading the memorandums of discussion from the early 1960s and the transcript—I think from 1990—when warehousing was discussed at length by the Committee. I want to discuss the wisdom of our having that warehousing authority. If we look at the domestic portfolio, the Federal Reserve Act prohibits the Federal Reserve from buying obligations directly from the Treasury, though there is a \$3 billion emergency line, if you will, that the Treasury can call on to sell obligations directly to us. And I think that that's a sound provision. We do not have an obligation to buy—and in fact, we cannot under the Federal Reserve Act—unlimited amounts from the Treasury. The problem on the warehousing side—given the history on this and given that the Treasury clearly has the lead responsibility on international issues—is that, when the Treasury comes to us and says it wants another \$5 billion, we can find ourselves in a box under present circumstances. I think it puts us in a very awkward position.

In my view there's something to be said for making the warehousing limit \$3 billion, which would correspond to the \$3 billion emergency amount available on the domestic side. I think that would send the right message—that the Treasury does not have an unlimited line on the Federal Reserve. My goal would be to try to prevent our being in the situation where, because the Treasury takes the lead on the international side, somehow the view is that we're supposed to ante up whenever the Treasury asks us to. That's the awkwardness that I see in this situation.

CHAIRMAN GREENSPAN. Yes, there are a number of awkward relationships that we have in our role as fiscal agent, none of which to my knowledge has ever triggered any event that would be of concern to us. I would assume that we could batten down a lot of different holes here and there. I'm not certain that that would serve a useful purpose. But that's a judgment of

the Committee, and I open up the floor for any comments anyone would like to make at this particular stage. Remember we had a very extensive discussion of the warehousing issue, as you point out, in 1990.

MR. POOLE. Right.

CHAIRMAN GREENSPAN. Which was only fourteen years ago! [Laughter]

MR. POOLE. I'm not proposing that we redo that by the way! That was a very long discussion, and it took a good deal of time just to read it.

CHAIRMAN GREENSPAN. What I would suggest you do, if you would like, is to write a memorandum on this, adverting to the comments and conclusions of the 1990 discussion, and we will circulate it. If there is significant interest in doing something of the nature that you are proposing, I would suggest that those who agree with that view make that known to Vincent Reinhart. He can then create whatever vehicle would be required to put that issue before the Committee for consideration. Is that satisfactory?

MR. POOLE. That's fine.

CHAIRMAN GREENSPAN. The next item on the agenda is—

MR. BERNARD. The Committee needs to take a vote on this item.

CHAIRMAN GREENSPAN. I'm sorry, I beg your pardon. Do you object to a vote being taken at this point?

MR. POOLE. No, not at all.

CHAIRMAN GREENSPAN. Without objection. I assume that the vote is in the affirmative on the recommendations in this memorandum. We also have a memorandum from Vincent Reinhart on the Program for Security of FOMC Information. Do you want to go beyond what you said in the memo?

MR. REINHART. I have nothing to add.

CHAIRMAN GREENSPAN. Next is item 6 on the agenda. Dino Kos has provided an evaluation of the use of GNMA's in outright transactions for the System Open Market Account (SOMA). Do you have comments on that?

MR. KOS.¹ I was just going to summarize briefly some of the points that were made in the memo and discuss the one-page set of graphs that I circulated today. The Committee will remember that this topic goes back to the time when we were worried about the stock of Treasuries shrinking rather than expanding and we were looking at alternative assets for the SOMA. The Committee in November 2002 directed the staff to continue to look at GNMA's as a possibility and to come back with a proposal about how we might use them in transactions for the SOMA if the Committee decided to do so. The memo describes how we might do that. We would propose to have the Desk do the front office tasks in house but to outsource the back office work—the clearing, settlement, custody, and associated tasks as well as the prepayment estimations.

I think we learned some interesting information in the course of this exercise. Clearly, this is an important market, and it has become more important. The top chart in the page that I circulated today shows the growth of the mortgage-backed market in totality and the fact that it has outstripped the Treasury market over the last few years. However, the GNMA market itself actually has been shrinking both on an absolute basis, as can be seen in the middle panel, and on a relative basis compared with Fannie Mae and Freddie Mac, as depicted in the bottom panel. Despite the growth in the mortgage-backed market, Ginnie Mae has had trouble competing, given that Fannie Mae and Freddie Mac have specifically lowered their standards in an attempt to build up their assets of lower-income housing, which they've been very successful in doing. But that has had a cost in terms of Ginnie Mae's success in competing, and that's something the Committee may want to think about. The point that I made in my cover memo was that, on the one hand, the Committee may want to approve going ahead with this if it sees the benefits of transacting in this market to be of sufficient value. Indeed, there may be some value in the central bank's being in this market. On the other hand, it would take about three years to implement this program, and there is some expense involved.

Moreover, the fiscal situation has changed quite a bit since the Committee last talked about this. At that time the forecast for fiscal year 2004 was a surplus of about \$150 billion. Yesterday the CBO came out with an estimated deficit of \$477 billion for this fiscal year. So, to the extent that this was seen as a hedge against the possibility that the Treasury market might begin to shrink, that reason has gone away. Again, there is the issue of the shrinkage of the Ginnie Mae market itself. Even in the most favorable scenarios, it's hard to see how GNMA's would make up more than 2 to

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

3 percent of the System Open Market Account. I'd be happy to answer any easy questions. Bob Elsasser is here to answer any difficult questions.

CHAIRMAN GREENSPAN. It certainly strikes me that the reason we moved in this direction was for contingency purposes—and necessarily so—but it turns out in retrospect to have been unnecessary in that respect. I think we should not move forward and expend additional effort or funds on this. I would put aside the work that has been done, and in the extraordinarily unlikely event that concern about the availability of Treasury securities reemerges, there's more than enough time to readdress the issue.

MR. GRAMLICH. By that time, the Ginnie Mae market may have disappeared totally.

[Laughter]

MS. MINEHAN. That's what I was going to say!

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Dino, I thought this memo was superb, and I learned a lot from it. But I want to mention two arguments not discussed in the memo for why being in the GNMA market might be attractive to us. I realize that we certainly don't need GNMA's for the original reason that we embarked on the study. First of all, developing and maintaining in-house expertise in this market may be helpful in carrying out other parts of our responsibilities, particularly in the bank supervision area because banks hold a lot of this paper. It's obviously a very huge market and a complicated one, so I think there is a case on that ground for having expertise in that market. The other thing that strikes me is that we may end up in a somewhat adversarial relationship with the GSEs in regard to the housing issue. So from that perspective, there may be something to be said for being involved in supporting housing through a Ginnie Mae portfolio.

MR. KOS. On the first point, our focus in the memo was on what it would take to get the program going. Clearly, there are some broader policy questions that we didn't think were for

the staff to be opining on. But if the Committee feels that it's important to be in this market for whatever reason, the Committee can direct us to do so.

CHAIRMAN GREENSPAN. That issue is independent of this memorandum and indeed just came up. But it's an interesting issue to keep in the back of our minds depending on how the discussion relating to GSEs evolves. It could move in the direction where it might be a reasonably sensible U.S. government policy to enhance GNMA as an operating agency, in which case we may or may not decide at that point to do anything about it.

MR. KOHN. I have a comment on President Poole's comment. I saw an advantage in going this route in terms of our being consistent across securities; we would buy everything that was backed by the full faith and credit of the U.S. government. But I also saw it as adding in some sense to the adversarial relationship with the GSEs because it accentuates that difference among them. And we're addressing that in other ways. Given that doing this is a lot of trouble and we don't need to do it because of the volume of Treasuries, I wonder if it's more trouble than it's worth. So even though adding Ginnie Maes to the SOMA would leave us in a little purer position on the full faith and credit principle, I think I would follow the Chairman's advice and drop it for now. Dino, the market knows we're looking at this. Do they expect anything? Will they be surprised?

MR. KOS. No, I don't think they will be surprised. I think this veered off their radar screen maybe twelve to eighteen months ago.

MR. GRAMLICH. I think the costs of this are high and the benefits are very, very slight. We have been taught to make decisions using these comparisons. I would say, along with the Chairman and my colleague on the right, let's put it on the shelf for now

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I'd like to speak to President Poole's first point because I do agree that these are very important markets and that understanding how they operate is important. We only have to look at what was going on last spring to realize the importance of understanding how the mortgage-backed securities market works. But I think that's different from actually operating in those securities. Yes, we would learn a little from some hands-on experience, but we would have to outsource a good deal of the work, buy forecasts, and do a lot of things that we really don't need to do to understand the market. I'm sure there are people at the New York Federal Reserve Bank who do understand this market. The fact that we had these memos is proof of it. So I would think that we could keep up with this and be on top of the situation without being in that market.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. I agree with those who have suggested that we put this on the shelf for now. The original purpose is being dealt with in other ways, and the cost seems to be sizable for this particular very narrow dimension. If we need to, we can bring it up at another time. I think it's better shelved for now.

CHAIRMAN GREENSPAN. Does anybody object to that as a conclusion of the Committee? If not, we'll assume that is the decision. Now we go into our regular meeting agenda. Would somebody like to move approval of the minutes for our December 9 meeting?

SPEAKER (?). So moved.

CHAIRMAN GREENSPAN. Hearing no objection, they are approved. Now we turn to the Working Group on Communications. Governor Ferguson and Vincent Reinhart.

MR. FERGUSON. Thank you. I'll be very brief. Vincent is going to do most of the heavy lifting in terms of describing a number of different options and conclusions—both on

issues that the working group looked at and on a number of issues that I asked the staff to address in the memos they prepared. In my introductory remarks I'd only point out that as we go into this it would be nice, of course, if we were to find a consensus. But frankly, if at the end of our discussion today there is no obvious consensus, then by definition the Committee can decide to come back and think about this topic further. Or as someone said to me before the meeting started, the subject of communications is probably going to be on our agenda in some way, formally or informally, for a long time to come. If we can resolve some of the issues today, that would be great. But if we can't, then we'll move on. I will try to be sensitive to the fact that we also want to move on to other elements of the agenda. So at some point I'm going to suggest a go-around—I don't know how long it's going to take—but ask that we leave time for Dino's presentation on the Desk's activity that goes with the discussion for tomorrow. Vincent, why don't you pick up from here with this document that was distributed?

MR. REINHART.² Thank you, Governor Ferguson. I'll be referring to the material called "The Committee's Communication Strategy" that was handed out to you before the start of the meeting.

Next week marks the tenth anniversary of the Committee's first public explication of a change in its intended federal funds rate not associated with a change in the discount rate. But increased openness has not been a U.S. phenomenon alone. Across the industrial world and in many emerging-market economies, monetary policy makers now provide real-time information on their forecasts, the risks to those forecasts, and their goals and objectives, often accompanied by narratives explaining their strategies. These come in the form of statements, policy (often called inflation) reports, and regular press conferences.

The Committee has been riding that wave of increasing communications. In some ways, it has been ahead of other central banks. For example, no other policymaking body immediately releases the vote tally at its meetings. However, in other ways, the Committee has not been at the leading edge. On page 2 of your handout, I provide a reason why you may have felt it important to be measured in changing your information policy: Your words matter. The bars plot the market response—as measured by the change in the two-year Treasury yield in narrow windows surrounding the events—around the release of the Committee's statement (the top

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

left panel), its minutes (the bottom left panel), and the Chairman's semiannual testimony (the top right panel) since 1997. (The reason I describe the top left panel as exclusively the response to the statement is that I have used federal funds futures rates to strip out the portion of any market surprise about the level of the funds rate.) The responses both to statements and to testimonies have been sizable. Except for the most recent release, though, minutes have tended to be much less of a market event—presumably because of their publication lag. As shown in the table at the bottom right, your statements and the Chairman's testimonies have had effects on market prices that, on average, have been as large as those associated with releases on the employment situation and larger than those associated with the publication of data on the ISM index or consumer prices.

Another point to make about your ten-year experience with statements: At least as can be judged from the transcript of your meeting on February 4, 1994, Committee members may not have fully appreciated that they were setting a precedent with a public announcement. In the event, the response to that short paragraph was so positive, you could not go back to signaling policy changes through open market operations. That might be a lesson to remember as I outline various potential changes to your communications strategy in the rest of my briefing.

Page 3 gives a roadmap of the rest of my remarks. The options confronting the Committee are interrelated. To facilitate your discussion, my briefing will have five parts. I intend to lay out the range of plausible options before the Committee at the outset and then speak about them in more detail. Those include alternative formulas for the risk assessment of your statement—that is, I will report on the progress of the working group chaired by Governor Ferguson. Then I will discuss the pros and cons of expedited release of the minutes, which were given more completely in the memo by Brian Madigan that I circulated, and of an enhanced role for the FOMC projections, which were examined in a memo by Benson Durham. I will end about where I start by repeating the “Chinese menu” of possibilities so that you can begin the hard work of determining how the pieces might fit together.

Your first look at that Chinese menu is provided on page 4, which gives a broad overview of options across three main communication issues on today's agenda. The left column lists the possibilities for the paragraph in the Committee's statement that gives an assessment of risks to the outlook expressing a probabilistic assessment of the uncertainty surrounding the dual goals of inflation and output. To some, this serves to hint at the direction of future policy without offering a commitment. This being a central bank, it is always an option to maintain the status quo in which the drafters start from a formulaic assessment of the risks to inflation and output but have some discretion in the exact wording—with the expectation that the result will preserve the three-part assessment of risks used since May. This approach allows some consultation with Committee members through the Bluebook.

The option dubbed “gradual evolution” involves expanding both aspects of the process by allowing more discretion to the drafters to alter the words according to

evolving economic conditions and to provide more discussion of the words of the statement in the Bluebook. However, there would be an explicit expectation of including a forward-looking aspect to the statement and an assessment of risks, except on those rare occasions, as last March, when no such assessment could reasonably be made. If you would like, we could structure the forward-looking portion of the Bluebook around two or three draft announcements keyed to conveying to the public possible changes in either the outlook or policy. Those alternatives would provide the basis for your policy discussion and vote, and one of them—with whatever last-minute changes you wanted—would be released to the public. If events between the publication date of the Bluebook and the Committee meeting changed the situation sufficiently, we would circulate a Bluebook supplement that suggested more appropriate wording.

Another set of possibilities is to adopt new formulaic language, as you had with the “balance of risks” from 2000 to early last year. In just a bit I will report on the three formulas that the working group forwarded to the full Committee. Lastly, you could choose to discontinue the assessment of risks portion of the statement, accepting that substantial criticism would ensue for backsliding away from openness. In principle, that need not be backsliding if the Committee decided to alter some of the other margins of its communication policy. Of course, such other changes also may be viewed as desirable in conjunction with retention of the risk assessment. One possibility would be to expedite the release of the minutes, the subject of the middle column. About two weeks is the barest minimum required for the Secretariat to draft, circulate for comments, and release finished minutes, but you may see some benefit in providing a bit wider cushion by releasing minutes, say, three or four weeks after each meeting. Another possibility is to enhance the role of the economic projections of the Governors and Bank Presidents as outlined in the right column. You might want to increase the frequency with which the survey is conducted, lengthen the projection period, or increase the number of variables projected. You might want to continue to release those projections in the Monetary Policy Report, but they could also be part of expedited minutes or the subject of a separate release.

As you could probably tell from the thirty-page memo that circulated last week, the working group and its staff devoted considerable attention to alternative formulaic language. Page 5 reviews some of the key lessons learned. In particular, members settled on six important design principles that any formula should satisfy: (1) Good governance suggests that the Committee should vote on the exact wording of the risk assessment. (2) The statement should not hamper the policy discussion, nor should the Committee feel constrained in its choice of action by a formula. (3) The statement should be flexible enough to encompass the Committee members’ views about the operation of the economy and the concepts that can be usefully measured. (4) The statement should be clear to the public, or at least as much as it is possible for central bankers to endeavor to be. (5) The statement should cover the range of feasible contingencies so that the formula would last, if not for the ages, at least a few years. (6) The statement should avoid the use of potentially charged

terms, such as “risk,” when referring to outcomes that may be seen as positive. For example, the statement should not convey the mis-impression that the Committee is against strong economic growth for its own sake.

While the working group settled on these six principles fairly quickly, three questions remained unresolved, which are provided in the column at the right. In particular:

- Should the wording of the risk assessment be in terms of the levels of output and inflation or their changes? Conveying a sense of levels may make it easier to describe economic performance relative to the benchmarks of potential output and the Committee’s inflation goal. However, such specificity may be seen as a drawback because there is a range of opinion among members about appropriate benchmarks.
- What conditioning assumption for monetary policy should be employed? The forecast could be based on the assumption of unchanged interest rates, as was the case with the old balance of risks language, but that presents problems for projections far into the future should that assumption diverge significantly from what is built into financial market prices. The alternative would be to assume a historically normal policy path; but if the Committee does not reveal that assumption, the public may have difficulty understanding the message of the risk assessment.
- Over what period should the outlook and risks be considered? A shorter period—that is, the next several quarters—has the advantage of limiting the factors that influence the outlook. However, such a horizon may not be sufficient if you think the lags in the transmission of policy are substantial, suggesting that you should look forward to the foreseeable future.

Confronted with different potential reasonable answers to these questions, the working group narrowed the field of potential formulas to three: two stated in terms of levels but differing as to the policy assumption and period, and a third stated in terms of changes. I should note that the three alternatives do not explicitly mention the conditioning policy assumption. In principle, that design feature could be conveyed to the public when the new policy is announced and mentioned periodically in the minutes as a reminder. The “levels A” alternative is provided on page 6, with the left column repeating what was in the memo you received on January 20. As noted in red in the text and highlighted at the right, this alternative is stated in terms of levels of inflation and economic activity and makes explicit reference to benchmarks for inflation and output. While the paragraph is silent about the conditioning assumption for policy, it is based on an assumption of “normal” policy. In addition, as shown in blue, the horizon is “several quarters,” but outcomes are described relative to paths that extend further into the future. The “levels B” alternative provided on page 7 shares a focus on levels and explicit benchmarks (as noted in red at the right) but differs in two important dimensions. First, while it is

also silent about the policy assumption, the drafters assumed that the implicit forecast is based on an unchanged policy stance. Second, as shown in blue, the horizon is “the foreseeable future,” that elastic concept borrowed from the old balance of risks language. The “changes” alternative given in the left column of page 8 focuses, as indicated in red at the right, on changes in output relative to potential and changes in inflation. Presumably, if the Committee saw fit, the prior paragraph of the statement that describes economic conditions could refer to levels and benchmarks. As in the “levels B” alternative, this formula is based on the undisclosed assumption of unchanged policy and applies to the foreseeable future.

Staff subjected these three alternatives to a variety of stress tests to gauge their performance both in scenarios that seem likely in the near future and that have challenged the Committee in the past. I am not revealing any secrets of the working group by indicating on page 9 that problems emerged with all three formulas. In particular, measurement issues arise when words with vague or multiple meanings are used, such as the “long-run trend of potential” or “long-run sustainable pace” or even an unquantified notion of “price stability.” In addition, you may feel uncomfortable about the clarity of any statement that relies on words such as “path consistent with,” which may admit many possible trajectories, or “the foreseeable future,” which, for some, appears to have meant a period as short as the intermeeting period and to others a period measured in years. Lastly, the conditioning assumption used in the implicit forecast introduces a fundamental question as to the purpose of the risk assessment. Do you want to send hints about the future direction of rates (which seems easier to do with the assumption of unchanged policy), or are you conveying qualitative information about the fan chart surrounding your forecast (as seems the case with the assumption of “normal policy” or the related assumption of “appropriate policy”)? The working group decided that its mandate was to present information to allow the Committee to determine an acceptable tradeoff among the various pitfalls, recognizing that abandoning an attempt to arrive at a formula is also an option.

No doubt, this decision also interacts with any you might make about expediting the release of the minutes, the subject of page 10. Central banks that do release minutes before their next scheduled meeting, such as the Monetary Policy Committee of the Bank of England, stress advantages such as a desire to provide more timely information to the public consistent with their responsibility to be transparent and accountable. In addition, minutes provide a platform to present the outlook and policy strategy in a more nuanced fashion than is possible in an immediately released statement. And relevant to my earlier discussion, expedited minutes may make you more comfortable in trimming the statement.

The disadvantages mostly seem related to possible effects on Committee dynamics and other aspects of your communication policies over time. You might be concerned that, as the minutes increase in market importance because they are released in real time, mention in the minutes would be viewed as a chip in the bargaining process in arriving at a policy decision. The quality of the minutes might

suffer over time if they were “scrubbed” to mitigate potential market reaction. In particular, you might be hesitant about including conditional statements in the minutes, such as a desire to change policy at the next meeting if intervening data run in a certain direction or to hold an intermeeting conference call. The bottom line is that experience has shown that market participants tend to overreact to contingent statements, and fear of possible inappropriate market response might be viewed as a decided negative. In addition, the Committee, and future Committees, would have to exercise some self-discipline so as not to succumb to the temptation of using the minutes to send signals in response to developments after the meeting.

Some thought would also have to be given as to the timing of the release of the minutes, particularly on those occasions twice a year when the Chairman delivers the Monetary Policy Report to the Congress. Indeed, as a general principle, the prospect of creating an additional news event in which market participants and reporters await some fixed release from the FOMC may seem especially daunting. And in that regard, the Committee may want to review its policy regarding blackout periods so that the release of the minutes marks the first news about the thinking of policymakers at the previous meeting.

Twice a year, the minutes include the central tendencies and the ranges of the Governors’ and Bank Presidents’ forecasts of key macroeconomic variables. Early release of the minutes naturally raises the question of the role of those projections, as is discussed on page 11. There are several margins over which the Committee could enhance the role of those forecasts. In particular, you might want to (1) increase the frequency of the survey to every meeting or every quarter; (2) increase the length of the projection period, thereby giving the public some sense of the Committee’s views of the longer-term prospects for the economy; (3) increase the number of variables in the projections, perhaps to include core PCE inflation, which seems central to the deliberations of the Committee. Indeed, you might view the projections as a means of conveying to the public your view of the longer-term elements essential for policy, such as the growth rate of potential output and your individual working definitions of price stability, and perhaps the degree of uncertainty about that outlook, by including the width of uncertainty bands about each variable forecasted. The latter might be particularly attractive, as wide bands would reinforce that monetary policy is as much about controlling potential risks when a forecast, almost inevitably, does not come true as it is about making projections. At a practical level, the Committee will also have to decide whether it is appropriate to separate its projections from the Monetary Policy Report and testimony.

The pros of an enhanced role of the projections given at the top right should seem familiar. By getting them out earlier, you would be providing more-timely information to the public, both about your central tendencies and range of opinion, thereby increasing transparency and accountability. Some might find a particular attraction in substituting a survey of numbers that is mechanical for the risk-assessment portion of the statement, which requires consensus. The cons relate

mostly to the Committee's process and market participants' interpretations. You will have several decisions as to whether the forecasts should be included in the minutes of the meetings, can be revised after meetings, or their release augmented with explanatory text. The public might not understand the conditional nature of the projections and ascribe to them more weight than they actually receive in the policy process, thereby creating another news event in intermeeting periods and impairing your reputation as forecast errors cumulate.

With the last page in your package, I deliver on my promise to end where I started. Page 12 repeats the Chinese menu and underscores that I am seeking direction from the Committee on all aspects of its communications policy. Many of the options that are listed will require much more staff work to arrive at a solution acceptable to the Committee. That is, the discussion to follow will not be the end of work on communications policy, but I am hopeful that it is the end of the beginning of work on communications policy.

MR. FERGUSON. Thank you, Vincent. We know it's not the beginning of the end. Having done this a few times, I know that there will be deep emotion, short speeches, and long speeches, which is all fine. That's what democracy is all about. To help us try to figure out if we have a consensus, though, Vincent has given us what he describes as a Chinese menu here. It would be very helpful if in your comments you could at least touch on each one of these three topics—as I'm sure most of you will—so we can keep a record as we're going through this. With that plea, why don't we open it up for discussion and see who wants to start. Chairman Greenspan, do you wish to start this round?

CHAIRMAN GREENSPAN. Yes, that's what this signal means. [Secretary's note: The Chairman had raised his hand.]

MR. PARRY. That might end it!

MR. FERGUSON. Yes, so much for democracy! Chairman Greenspan is recognized, and then my list says there are others who wish to follow.

CHAIRMAN GREENSPAN. There are a number of very interesting ideas in here that have the characteristic that they are irreversible upon implementation. Hence there is a certain

barrier above which I think a proposal has to rise before we move forward on it. I was a little distressed that my alternative to a number of these issues, which I hadn't thought of before, didn't get considered!

MR. FERGUSON. It's in there somewhere! [Laughter]

CHAIRMAN GREENSPAN. I've given considerable thought to various formulaic procedures that we could use in trying to craft our post-meeting statement. While I was one who thought in the beginning that it would be possible to use a formulaic approach to that endeavor, I've concluded at the end of the day that there's something fundamentally wrong with such a process. That is, the statement either has to have too little specificity—which means it doesn't give us the flexibility to pick up nuances reflected in our discussion—or it becomes extremely complicated because we are forced to put into a small number of alternative phrases very complex judgments about what the Committee is doing.

As we've gradually been going through this process, we have come out with a number of ad hoc statements, which I frankly think have not been bad. The reason they were not bad is that they were tailored to some very specific and complex discussions that had taken place at our meetings. And I think we readily communicated our judgment about the alternatives we had, our true assessment of the balance of risks, and most importantly the inclination of the Committee. We used a number of different ways to convey that, and the reason we did was that each meeting was essentially different. It had a different mold to it. The main concern in doing this is the basic problem, which I think we have all eschewed, of writing a communiqué authored by nineteen people at the end of the meeting. That is physically impossible in every respect that one can conceive of.

Cathy Minehan, as I recall, raised a point at the end of the last meeting about restricting the number of words in our statements. As I've thought about it over the intermeeting period, my impression of what we ought to do—and I grant you it is not in these materials—is to continue the type of statements we have now. We have a statement that gives our view of the outlook and indeed of what has been happening. I think there has been almost no dissent on the words we've used even though they've been different from meeting to meeting. We then give some sense of where we think the risks are, and unless I'm mistaken, in virtually all cases—even though at times we've used more words than we would have liked—we were able to describe that in a relatively few words. The important advance of communicating several wording options to the Committee through the Bluebook prior to the meeting—associating alternative statements with various policy choices—struck me as a working model.

So I'm of the opinion that we really don't need a significant alteration in what we're doing. I would prefer that we continue to try to do this the way we have been doing it, but with two caveats if you will. One is that we use the Bluebook to provide alternative wording suggestions, and two is that we adhere to what I would call the Minehan restraint. My impression is that would work; I don't know that for certain. It has worked to date. I'm very uncomfortable with the elaborate formulaic announcements largely because I think they will force us into rigid forms of communication. If we have an economy that is continuously changing, I think it is going to require us to be flexible in our language and in our approach. We always have the capability of going from what we're doing now to formulaic language in the future. We probably have the capacity to reverse a decision to use formulaic language and to go back to something like we're doing today, though not without some negative cheering from

outside observers of Fed policy. But we can live with that. Nonetheless, I don't think we need to go with formulaic wording. That's my view on this particular issue.

MR. FERGUSON. I think I would describe that, in terms of the options Vincent has laid out, as gradual evolution.

CHAIRMAN GREENSPAN. Right.

MR. FERGUSON. It gives us greater flexibility and involves using the Bluebook to provide alternative wording for the statement.

CHAIRMAN GREENSPAN. I will grant you that that is probably the right characterization of my view.

MR. FERGUSON. Since you have the floor, do you wish to go on to the other two topics on the menu, earlier release of the minutes and the role of the projections? Or would you like to hear more discussion?

CHAIRMAN GREENSPAN. If I may suggest—since this is going to be a long discussion and each of these is a relatively separate issue—I think we'd be better off doing risk assessment first, then release of the minutes, and then the role of projections. After we've done that I'd go on to the fourth item, which would be the coordination of these various aspects of our communication policy, because there is interaction among them.

MR. FERGUSON. How they all work together.

CHAIRMAN GREENSPAN. Yes.

MR. FERGUSON. Okay. This being a committee, people will either accept or reject that approach. I have President Hoenig next on my list.

MR. HOENIG. Given the suggested approach that you've just outlined, Mr. Chairman, I'll confine my comments. On the risk statement, if that's what we're narrowly focusing on, I

don't have any difference with you. But I'd start out by saying that I wish we could get rid of the risk assessment in the statement. I'd like the statement merely to say this is the action we took. It's the risk statement that always seems to hang us up and raise other issues.

CHAIRMAN GREENSPAN. Is that option listed? Oh, here it is.

MR. FERGUSON. That's the very last one on the list—to discontinue the assessment of the risks. I'm not sure if you're saying you want to go with that one or with something else.

MR. HOENIG. Well, that's what I would prefer. But barring that, depending on how this Committee discussion comes out, my second choice would be the gradual evolution option.

MR. FERGUSON. Okay. Do you want to stop there, or do you want to address the other topics?

MR. HOENIG. I'll stop there.

MR. FERGUSON. Okay, why don't we keep going in this mode. We seem to have fallen into focusing mainly on the risk assessment. President Santomero.

MR. SANTOMERO. Following that model, I too found myself in the situation when I had finished reading the document—while it was well prepared and helped me think about the process—where I wasn't particularly happy with the set of options. I'm trying to decide whether I am in Chairman Greenspan's camp or President Hoenig's—whether my preference is an evolution or an evolution to a shorter statement. In fact, in the formally prepared comments that I have with me today, I ended with a line similar to President Minehan's view, saying that in many cases less is more. I don't think any of the options that we have before us quite gets us where we want to be. It's hard to talk about levels without talking about growth rates. It's hard to talk about where we are without making a statement about whether or not it is in fact a desirable place to be. I found myself looking at and reviewing the options and finding different

subtleties and implications associated with the different statements. As a result, I felt as if we were actually moving backward rather than forward.

My own sense is that we would be better off saying less. I'd begin by saying where we are currently, as we do in paragraph 1. Second, I think we should give some context to the decision, similar to what we do now but perhaps expand it a bit. As in our last statement, we might also comment on whether or not our current policy is accommodative, and then we could include information on what we think about current and future economic conditions.

Paragraph 3 would relate to what we think the outlook is for GDP growth as well as inflation. Importantly, in my opinion, we should have an assessment of whether or not the growth rate is problematic, and I'd be more symmetric in terms of the words "problematic" or "worrisome" that appear in our statements every once in a while. With that I think we could stop. So in that regard I am closer to President Hoenig's position, but I think we can get there over time by essentially stopping at that point.

MR. PARRY. Tony, that would be a shorter statement?

MR. SANTOMERO. It would be indeed. It's almost what we're doing now; it just doesn't go on into detail with the formulaic language regarding our assessment of the risks. I do worry about the formulaic wording. As I was reading the memo, I asked myself, Does this tell us the same thing using formulaic approach A, B, or C? And frequently my answer was "no." Second, I thought it would tend to force our discussions into something that seemed quite constrained.

MR. FERGUSON. I must say, Tony, as I listened to what you said, it struck me as not very dissimilar from the gradual evolution approach because you want to talk about the future. You used some phrases that dealt with whether or not the outlook was problematic, which I think

is what was intended by the gradual evolution option. But I think I understand where you are. The next one on my list is President Stern.

MR. STERN. I was part of the working group, but I certainly agree that none of the alternatives is perfect. Confining myself to the risk assessment, if I were going to select formulaic language, I would select the “levels A” alternative—for very practical reasons. When I ran through the stress tests, that alternative seemed to me to do the best job of conveying to the public the situation and the prospective stance of policy given what we knew at the time. Others may disagree, I realize, but that’s where I came out. However, I would have no trouble—as you know, Roger—going with gradual evolution. Indeed, if you look at the criteria on page 5 in Vincent’s memo, I think that approach may well do a better job on items 2, 3, and 4. So I have no problem with that approach and would be very comfortable with it.

MR. FERGUSON. I have Governor Gramlich next.

MR. GRAMLICH. I began the exercise thinking that we could come up with a formulaic statement that would work most of the time. In working through it—I was also part of the working group—I now think we can’t. I’m pretty much in sympathy with the Chairman in believing that we will face situations where we may think the differences are subtle and not that great but in fact they are. In going through the stress-test exercise, as was done in the memo, I found that nothing here appealed to me very much. Not only do these options not appeal to me, I think they are worse than what we’re doing now. So I would be for gradual evolution. I actually recommended a sentence limit before. Maybe Cathy’s word limit is better than a sentence limit. I don’t know. But I do think that we ought to keep it short.

I would like to address a different issue. The one cost that has been mentioned is that associated with writing a new statement each time—that it is too hard for us in terms of the

process. You pass out a draft, we've got to read it and think about it, and so forth. I've actually thought about that issue, and in my view, it is less of a problem than we may think. First, in the way these statements have gone, they really haven't changed all that much from meeting to meeting. Second, in the last few Bluebooks, Vincent has described how the statement might change, so we have some warning or advance notice. Consequently, when we see the final statement, I don't think it's that much of a shock. In terms of the process, I believe it's something we can handle at each meeting. In sum, I think the formulaic approaches don't really do it. Second, I think we have overrated the cost of writing a separate short statement each time to convey exactly what it is we want to convey.

MR. FERGUSON. I have President Broaddus next.

MR. BROADDUS. Let me approach it this way: In terms of the chart here, I'm probably going to come out with respect to the risk assessment somewhere in the gradual evolution area. But to me that's closely related to the early release of the minutes. I view that as an integral part of the communications effort—as sort of a package. And even though at the end of the day I have difficulty with a formulaic approach, I think we ought to have some discussion of the proposals in the memorandum. We received this documentation, and it's very involved. I've tried to think through these options, and I believe that can help to illuminate some of the issues we're discussing. So let me make just a couple of comments that I worked up before I came in. They may be a little off the immediate mark, given the direction of the conversation.

The first thing I would say is that I think the working group made a very constructive and helpful effort in trying to look at this and I learned a lot from it. It taught me, among other things, that even minimum clarity requires that we be willing to describe our thinking in terms of levels of economic activity and inflation in relation to their potential or desired levels. Two of

the three proposed approaches do this. As I worked through the language itself, I didn't think it was successful in pulling it off. For what it's worth, let me suggest why I think that's true. I focused mainly on the two alternatives labeled "levels A" and "levels B." You know, there's a lot in this memorandum. I looked primarily at scenario one, which seems to be the closest to where we are and where I think the balance of risks lies going into this meeting. To my mind, it may be helpful to consider why the suggested language doesn't quite achieve what we want.

The levels A alternative assumes that the public understands that the funds rate has to rise at some point down the road, which seems to accord with the facts. But for me the problem with the particular language in that alternative is that it doesn't give a clear sense of the current magnitude of the output gap. Nor does it convey our expectation—and I believe this is the expectation of many of us—that that gap will close only gradually over a two-year period. It seems to me, however, that that's precisely the kind of information the markets and the public need to be able to form their expectations efficiently and effectively. In some sense the language we're using now does a better job with the "considerable period" phrase.

Then I looked at the levels B alternative; that language is at the bottom of page 20 of the memo. In this case it is based on the assumption of a constant funds rate. That boils down to a statement that, in the absence of a funds rate increase, the output gap is likely to turn positive at some point down the road. But again, in my view, the language doesn't give a clear sense of how quickly all of this might happen or how it might evolve, which I think is what the public needs to know.

Having gone through this thought process, I think if one were to work through the other six scenarios there would be similar problems. So I conclude that it just may not be feasible to convey in a few short sentences what we need to convey to allow the public to form its policy

expectations efficiently. We might be able to do it if, in addition to the suggested language, we stated explicitly and separately our current view about the sign and magnitude of both the output and the resource gaps and how quickly we think they will be eliminated. At some point, if we were following a procedure like that, we could even add, as we have done with the “considerable period” language, some explicit reference to the funds rate target. Of course, the problem is that, if we have all those sentences, it’s going to be nearly impossible to talk about it and vote on it in this Committee.

So that takes me back to where I was in September, when I felt that it might be a good idea to advance the publication of the minutes—and I’ll come back to that later. Before I do, let me make one last point. Whether or not we decide to alter the statement language, I think we could sharpen our discussion at our meetings in the spirit of your committee’s levels A and B proposals, Roger, by talking more explicitly and quantitatively about the roles that the output and inflation gaps play in our analysis of the economic outlook and in our discussion of short-run policy alternatives. Whether or not we move up the release of the minutes, I think a discussion of the gaps, along the lines that I just outlined, could improve our external communications at least by making the minutes more explicit and clearer.

To reap the full benefits of this, though, I think we would need to maintain a working estimate of the path of potential GDP, and I would argue that we would need to share that with the public. If we did that, we would obviously need to drop the other shoe and indicate publicly the quantitative range for inflation that we think is consistent with price stability. I won’t push that last point any further. I did that last time, and I don’t want the Chairman to throw me out of the meeting or maybe out of the window! [Laughter] That’s where I’d come out.

MR. FERGUSON. Governor Bernanke.

MR. BERNANKE. Thank you. This exercise shows us that achieving clarity and transparency for a large and diverse committee is quite difficult. But it's also very important both in our role as a public institution and for the efficacy of monetary policy. So I hope, even though it's a very difficult task, that we don't let ourselves backslide in this effort.

I want to say that I'm actually sympathetic to the view of gradual evolution in the policy statement. We saw last week a statement by the Bank of Canada that was quite a model of clarity. In simple English it explained conditions in the economy, and it explained why policy steps were taken. In that respect I thought it conveyed everything without the need for formulaic language. But as we go to a simpler and shorter statement, I would hope that we would increase the information we provide in other dimensions, particularly the minutes and our individual projections—and we'll come back to that later.

Let me say a word about the statements. Very briefly, I agree with President Stern. My preference among the three statements would be levels A for two reasons. The first is that I do think it's important to describe the outlook in terms of levels relative to benchmarks. The changes statement requires unspecified preliminary language in order to make it clear, which I think is a major drawback to that statement.

My second point has to do with the conditioning policy assumption. A number of central banks do use the constant interest rate assumption in making their projections. This assumption has been very strongly criticized by a number of observers, including Glenn Rudebusch and Lars Svenson and by Mike Woodford in his book and other places. There are two problems with the constant interest rate assumption. One is theoretical, and the other is practical, and they're related. At the theoretical level, the constant interest rate assumption is usually not well defined in the sense that many forward-looking rational expectations models simply do not have

equilibriums or they have multiple equilibriums under that assumption, whereas backward-looking models tend to diverge and have unstable behavior. In practice, that means showing paths in the projections that look very unrealistic. As a practical matter, the constant interest rate assumption is really not well specified because it doesn't specify what financial markets believe, for example. Do they believe that interest rates are going to be constant, or do they have the current market revealed preferences? How long will the constant interest rate path be maintained? What would be the policy after that path has ended? It's not really a very useful conditioning assumption, and therefore, I just warn you that there are some serious reservations about that approach. Thank you.

MR. FERGUSON. Thank you very much. President Minehan.

MS. MINEHAN. Thank you, Roger. For the record anyway, I expressed the view last time that I was in favor of fewer moving parts, although I think that would translate to both fewer words and, I hope, fewer sentences as well. I think we should focus a little—and this picks up a bit on what the Chairman was saying—on the problem that we're trying to fix here. Until last spring, I for one thought our communication wasn't too bad. We were misinterpreted for a lot of different reasons last spring, some of which related to what was happening in the economy and some of which related to our ongoing discussions about what we would do if deflation were actually staring us in the face. I think splitting the risk assessment in our statement, while it seemed logical and felt right at the time, probably played into that a little, and we were in some sense forced to add the "considerable period" language in the summer to try to get market expectations back on track. I'm not particularly comfortable with that language, though some of the rest of you may be.

I think it's entirely appropriate to tell the markets what we did—we owe them that—and why we did it, though the latter involves a degree of forward-looking analysis. But I don't think it's a good idea to be speculating on what we might do over an uncertain period of time, given a number of specific assumptions. Any one of the formulaic statements we're looking at requires a short course in macroeconomics to be understood. I don't think we're speaking to the academics with these statements. In my view we're speaking to the markets and the public. And in that regard I have a lot of sympathy for the idea of either discontinuing the risk assessment or going back to the simpler risk assessment we had before we split it into addressing the two risks separately. The simpler assessment worked for us for a number of years. Maybe that's gradual evolution. The sense I got of gradual evolution from Vincent's comments was that we were going to get Bluebooks of forty pages in length, three-quarters of which would be devoted to explicating three different presentations of the three different ways we could change the various aspects of the risk statement. I'm not in favor of that.

We need to figure out a simple way to convey what we want to say about the future, and I think we ought to have some agreement on that. But there seem to be very big differences of opinion among us on that, and maybe it's foolish to try to reach a consensus here. Do we really feel obligated to tell people what we might do, given an uncertain future? That's not necessarily what I would vote for, nor do I think that it would be helpful. If we're going to try to hint at our future policy with a risk statement, I'd rather go back to some variation of what we used to do. That's all I have to say for now.

MR. FERGUSON. President Parry.

MR. PARRY. Thank you. I began this process as a member of the working group leaning toward formulaic language, and the alternative that seemed most appealing to me was the

“levels A” one. But it became clear to me that, even in our group of seven, it would be extremely difficult to get a consensus built around that alternative. In fact, I wonder whether we can build a consensus of nineteen around any of the three alternatives, which leads me to believe that probably the approach now being referred to as “gradual evolution” might be the correct route to go. It seems to me that, if we have language in the Bluebook that is specific to the policy alternatives, then the discussion of the words associated with whatever policy we want to follow should be rather simple, requiring relatively few changes. Of course, Ned, the policy decision would determine the statement we would issue; it would be based on that vote. So I come to the conclusion that, given our different views of how the economy works, we probably ought to look more at the gradual evolution alternative.

MR. FERGUSON. President McTeer.

MR. MCTEER. I came to this meeting somewhat fearful that we would do something fairly dramatic and possibly make a big mistake. So I was very reassured by the Chairman’s opening remarks, which I would characterize as saying that the status quo is not all that bad. I think the gradual evolution alternative involves more gradual than evolution, which is an approach I agree with. I’ve long been in favor of discontinuing the statement of risks, and I still am. I agree with Cathy that announcing what we did and why we did it provides enough context about the future. In my view we make a mistake if we go further than that; it creates one more thing to be wrong about or to appease people about. So I’m for gradual evolution, but I would hope to fold discontinuing the risk assessment into that process. Preliminarily, I’m content with the way we’re doing the minutes and the projections now. But if we have to make some changes in those areas in order to justify eliminating the risk statement, then I would be in favor of that.

MR. FERGUSON. We’ll come back to those issues and explore them. President Guynn.

MR. GUYNN. Thank you. When Roger called me and I asked him if an option was “none of the above,” I shuddered, thinking that I’d be the only one with that preference. But I gather from the comments thus far that I’m not alone. So let me just say up front that I certainly share the view that we ought to resist the temptation to tinker at the margin at this point.

I, too, found the working group and staff papers helpful, but for a reason other than the reasons that have already been articulated. I think those materials exposed some very fundamental issues that we simply haven’t come to grips with. I would suggest that the more we’ve tried to say and the more we’ve tried to sharpen up the language of our post-meeting statements, the more we have bumped into some very frustrating fundamentals that I don’t think we’ve begun to agree on around this table. Not only is that going to get in the way with regard to what to say in our post-meeting statements, but I think it’s going to carry over into the discussion of the minutes.

In that regard, I don’t think we’ve really decided what information we ought to provide to the public. I agree with Presidents Minehan and McTeer that we have not even necessarily agreed that we ought to be in the business of providing short-term—and I underscore short-term—guidance to financial markets. We differ in our views as to whether that has been helpful and appropriate. In my opinion, it has created a very short-term focus on policy that has not been terribly helpful.

So to my mind there are some very fundamental questions along those lines. I don’t think we’ve even begun to deal with some of the basic questions about how to communicate our policy objectives and benchmarks. In fact, we haven’t even agreed on the definition of some of the very fundamental terms that Vincent highlighted, such as “sustainable growth,” “long-term potential,” and “price stability.” Until we’ve defined those kinds of terms among ourselves, it

seems to me that such concepts as “gaps” have no meaning. They certainly have no independent meaning; they have meaning only in the context of the Phillips curve framework, a construct on which at least some of us have very different views. So how do we anchor the forward-looking portion of our post-meeting statements on some kind of agreed-upon targets and objectives? The notion of our targets and objectives creeps into those statements even by the way we construct them now. What is the relationship between the post-FOMC statements and the semiannual Monetary Policy Reports to the Congress? Those are questions we need to talk about, and I think we’ll have some interesting discussions

In sum, my view of the work that has been done is that we should use it to highlight some of the very fundamental issues that I think are going to be with us whether we’re talking about the post-meeting statements or the minutes. Until we can come to grips with those issues, I think we’re going to continue to struggle. And the more we try to say, the more difficult it will be for us to be comfortable with the post-meeting statements. I’d like to come back and add some further thoughts when we talk about the minutes and our semiannual forecasts. Thank you.

MR. FERGUSON. Okay. President Pianalto.

MS. PIANALTO. Thank you. I also found the work of the working group helpful in thinking through some of these issues. Like others, I began the exercise thinking that formulaic language would help the Committee communicate because it would narrow the range of words we would be using and the markets would become more comfortable with the phrases and then interpret them in the same way over time. However, as I reviewed the alternatives presented by the working group and also the concerns listed in the document and the pitfalls noted on page 9 of Vincent’s report today—measurement issues, clarity, and the conditioning assumptions—my preference became gradual evolution. I favor telling the markets what we did and why we did it.

I don't think it's appropriate to signal future policy action. And I strongly support having explicit language alternatives spelled out in the Bluebook.

That said, I have favored for the past several months discontinuing the assessment of risks portion of the statement. But I didn't think that was an option. When we were discussing our communication with the markets, I thought we took off the table the possibility of going backwards, so to speak, and communicating less. I thought taking something away would not be an option. So for now my preference is gradual evolution, but depending on how we come out on the earlier release of the minutes or the role of the projections, discontinuing the risk-assessment portion of the statement might be a possibility.

MR. FERGUSON. Governor Bies.

MS. BIES. Like several others, I found the efforts of the working group very helpful in terms of laying out the issues we've been talking about at the last several meetings and putting them all together in one place. I also thought that, if I went through all the formulas and the various scenarios, one of them would really appeal to me. I did go through them, and I must say that, while I like the levels B alternative in principle, I didn't like the answer it came out with in some of the scenarios. That led me to the view that a formula isn't going to work for us. To my mind, what we have to talk about in our statement is what we believe is the most important issue. In the little over two years that I've been on this Committee we've faced a lot of volatility in that we've had to deal with a number of unforeseen events. So if nothing else we need flexibility because financial stability is one of our objectives, though we usually don't talk about that explicitly. But we are seen as one of the forces that keeps the market stable in part because we have a reputation for integrity, which I think is very important.

Let me make just a couple of general comments. One, I like the idea of eliminating words like “risk” that may have different connotations to the public. I say that as a former risk manager. I also like the idea of a little ambiguity in some of the alternatives we’ve discussed because around this table we all come at the policy decision from different points of view. And we know that in economics there are alternative paths to achieving our objectives going forward. So I’m not troubled by some ambiguity in the statements that we issue. Also, while the idea of setting benchmarks has been discussed, as we start to move toward defining those benchmarks, I think we’ll find that our different points of view will become more of an issue. Some of the alternative wording proposed I found very troubling because I don’t know if we can come to a consensus on what the benchmarks are.

As I thought through where we’ve had communication issues—particularly in the last few months—one of the things that struck me is that we actually have described very well the data that drove us to the decision we took at each meeting. As a few people have suggested with regard to fitting in the conclusion of the risk statement, maybe we could do a better job by adding an extra phrase or words about the incoming data. Maybe we could characterize economic growth in terms of the output gap or better describe the risks of inflation rather than adhere to a fixed formula that is so rigid that it doesn’t allow us the flexibility to respond to unusual developments. While I don’t want to see a statement that goes on page after page, I’d almost prefer to drop the part of the risk assessment about the output gap and inflation and add a few well chosen words to describe the incoming data that drove us to our action. I think that actually would make the statement more concise and clear, and perhaps it would deal better with the ambiguity that was pointed out in some of the scenarios under the various alternatives.

MR. FERGUSON. President Poole.

MR. POOLE. We're using the word "evolution" here. If I could use a genetic analogy, I think we want to be careful that we have some highly selected breeding and not random mutation. [Laughter] To begin my remarks, let me reflect a bit on how we got to where we are—some of the past evolution. Originally, of course, there was no statement issued at the end of the meeting, not even a release of the policy decision. I think it was in the early '80s that the Committee started to vote on a bias or asymmetry in the directive, but that was not released until a few days after the next meeting. Then in 1994, almost ten years ago to the day, the Committee agreed to release its policy decision on the day of the meeting. Initially the practice was to make an announcement when there was a change in the intended federal funds rate and no statement otherwise. So, clearly, the original idea was to provide an explanation of what we had done and why. After all, a decision to keep the intended funds rate unchanged is also a policy decision, but we did not have a statement at the end of every meeting. So the original idea was to explain why we did what we did. A little after that we made the decision—and I think this was after I came on board—to release the bias statement. Subsequently the bias was viewed as a problem, and we substituted the balance of risk statement for reasons that we discussed at length. I won't go into that. Now we seem to be focusing on the balance of risk statement, and to me we're not focusing adequately on the explanation of why we acted as we did and what the background was for our decision.

There have been many expressions of unhappiness with a formulaic approach or standard language, so I raise this point. To me the problem is not so much with standard language but that there is no way to construct standard language or any other kind of language that does a good job on a forward-looking commitment—or quasi-commitment or whatever it is—regarding where policy is going to go in the future. But I do think it is quite possible to come up with some

standard phrases or summary phrases to describe the policy decision that was taken. Now, that's not the issue the working group investigated. What it did investigate and what I think is being revealed in this discussion is that it is very hard to come up with standard language—and I'll predict any language—that we would regard as satisfactory in terms of the forward-looking nature of the policy decisions. I think we need to provide forward-looking information about where we expect the economy to go and that probably has to be nuanced depending on the facts case by case and meeting by meeting. But I believe that we ought to be able to come up with some standard language that says, for example, that we decided to raise the federal funds rate for this basic reason or we decided to leave it alone for this basic reason.

MR. FERGUSON. Governor Kohn.

MR. KOHN. Thank you, Governor Ferguson. I think there should be forward-looking elements in what we announce to the public when we make our policy decisions. The reasons for our decisions, as President Poole was suggesting, always have some forward-looking elements in them. But I think we can be a little more helpful than that in the sense that the Committee has an idea of how the economy and inflation will evolve over time and we could convey that notion. Not only is that judgment a factor in the current decision, but also it would give people some sense of how policy might evolve in the future. I'm not in favor of making commitments on the short-term path of the federal funds rate. I think what we did last August and have done since then with the "considerable period" language was an unusual step taken in unusual circumstances. I'm not in favor of that as standard practice. But I do think that we have some ideas and some analysis that it would be beneficial for us to impart to the markets, which would help them act in a more stabilizing way, consistent with accomplishing the goals we want to achieve.

On the balance of risks language, I agree with President Poole's history. We got to the wording we use today in a rather unusual way. But in some sense that language evolved as a substitute for the forecasts that other central banks provide. Other monetary authorities are able to issue more straightforward rationales for their actions in the sense that they have very specific forecasts and ways to discuss economic developments relative to those forecasts. There's a very clear sense of how they see the balance of risks going forward. I don't think that this group of nineteen people will ever have a forecast that it can agree on that will perform that function. So the balance of risks language has substituted for a forecast in giving us a forward-looking element in our statements. I agree that none of the formulas for the balance of risks has worked well. I came in favoring the change alternative. I thought that was the cleanest way to talk about what might be influencing the direction of rates going forward, but other people clearly don't agree. And in my view, both levels formulas have problems. So, Mr. Chairman, I support your proposal for lack of any better alternative, acknowledging that where we are isn't so bad as a starting place for a gradual evolution in the language. I do think it needs to evolve. The Committee members don't quite agree on the meaning of some of the language we use now. So I think we need to have that language evolve, and it needs to happen gradually in accordance with the situation that we're facing.

I do have some reaction to the general notion of shortening the statement. I think it should be as concise as possible to get our basic ideas across but not more concise. I'm a little concerned that arbitrary limits on sentences or words—even though I realize that people don't mean that literally—will not afford us adequate flexibility to convey the important notions that we need to convey. So yes, it needs to be concise, but in my view it would not be a good idea to drive for it to be so short that it didn't contain adequate information. We have some information

to impart to the markets about where we think the economy is going, which will be helpful to them, and I think we should communicate that information in a very general way.

MR. FERGUSON. President Moskow.

MR. MOSKOW. I, too, was in the working group and, as you can see, there was obviously not a consensus among the group on how to move forward. I was attracted to the formulaic language, though I recognize that there are some difficulties with it. It doesn't apply to every specific circumstance, but it does provide a very good framework for the Committee to express its views, recognizing that we can always amplify those views in earlier paragraphs of the statement. The formulaic language doesn't prevent us from doing that, and we would clearly have to do that in some cases. But obviously there's no consensus in going forward on a formulaic approach today. So I won't push it.

Just to be on the record, I favor the levels B alternative. I found some problems with the levels A alternative. The phrase "the path to" I found very confusing. There are many different paths that would enable us to reach our ultimate objectives for output and inflation, and I think that phrase would be very hard to explain to the public. So I have serious questions about whether levels A would be helpful to us, and I thought levels B was easier to understand.

In terms of the gradual evolution approach, which we seem to be evolving to gradually [laughter]—or maybe rapidly—I would just say this: I think putting the statement in the Bluebook is a very constructive step. I believe it is very important for everyone on the Committee to see the draft wording ahead of time. If there are last minute changes to the draft statement, which I think was a possibility mentioned by Vincent, those addenda should be sent out as rapidly as possible to the members of the Committee. I do think this process will require more of our time as a Committee, which I'm sure is fine with all of us, and I think we should

recognize that prospect, in terms of the discussion of the specifics of the statement at our meetings.

In terms of the nature of the forward look at policy, I agree with what Don Kohn said, but I'd add another point. I think there's a practical issue here in that it's very difficult for us as a Committee to back away from providing that forward-looking insight into policy. I think it would be viewed by the markets and by the public as a big step backwards no matter what we do with the minutes or even with our individual forecasts. When we get to the discussion of the minutes and the other communication issues, I think we can formulate a package. So I'll hold off on the rest of my comments until then.

MR. FERGUSON. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Let me just make a complicating observation, which is that I'm not quite sure what we think we mean when we say we're in favor of "gradual evolution." Many of you who have spoken today of gradual evolution have somewhat different views about the future statement in terms of what the third paragraph should be. So I was just going to ask this complicating question of you, Governor Ferguson: What does greater flexibility in assessing the risks mean in terms of which direction you want to see flexibility?

MR. FERGUSON. I'm glad you asked because I was going to try to summarize the discussion and be more explicit about where I think we are. I've listened and written down some notes. Clearly a number of you—though not a majority—would like us to discontinue anything that looks like a risk assessment. I'm interpreting that even more broadly, which is that this group doesn't want to give what might be perceived as hints about future policy. That said, as I listened, most people seemed to evolve to the following view: Pre-set formulaic language at some point will fall apart. The formulaic language we used previously lasted for a few years.

This language may last, but it will never cover a very subtle and complex situation. However, I sense that most people also agree with Governor Kohn, President Moskow, and a few others that either for practical reasons or for theoretical reasons we do need to provide something that is a bit forward-looking. In part that's because it may help explain our policy and in part because it may help us communicate to the markets—not in the sense of giving hints about policy but of fostering an appropriate mindset in the markets with respect to the incoming data and what we are worried about. That has been described as a balance of risks assessment, but it doesn't have to be.

So what I think we're agreeing to here is a commitment among ourselves, and frankly with the market, that we will continue to provide some forward-looking language that may have the flavor of indicating that the Committee tends to be more worried about X than about Y. And how we say that has to be tailored a bit each time to the particular circumstances. If we are far away from what the Committee generally thinks of as an acceptable level—it could be a growth rate, but let's say level—then presumably we're concerned about that gap, whatever it is. On the other hand, if we are close to whatever we view as the right level, then presumably we are worried about the point at which things may change and veer away—and we would be likely to move. So I think what we have agreed to here in this gradual evolution approach is that each statement will have something that is forward-looking but it has to be tailored to the particular circumstances that are prevailing at that point. The language may or may not include a summation—what used to be the old balance of risks—indicating that we are more worried about X than Y or that we are equally worried about both. There may be times when we clearly are more worried about inflation going lower or rising higher than we'd like. But we don't

necessarily have to commit to exactly when we are going to tie together our assessment of the risks.

The other thing that I detected was a strong sense that, because we're giving the staff greater room to maneuver in drafting the language—not reducing it to a formula or to choosing from column A or B—it's important for various alternatives to be shown in the Bluebook. We're not talking about forty pages, but there should be explicit examples of how the forward-looking part might emphasize one current or potential development more than another. I think those are the things that we agreed to. Another point, which I believe Vincent mentioned, is that being flexible by definition means that we also have the option not to include a forward-looking element in the statement if we simply can't come to a common point of view. I think what I have outlined here reflects the general consensus, though there are some outlying points of view for sure. I believe that's what we're agreeing to, and that strikes me as not a very bad outcome. That's my own summation. Is that helpful?

VICE CHAIRMAN GEITHNER. Yes. I'm happy to associate myself with that consensus.

MR. FERGUSON. Okay, that is the broad consensus. Let me say one other thing. Though the Chairman introduced the subject and got us somewhat focused on gradual evolution, from some previous discussions I think that is also a reflection of the broad middle view among the Committee members after having looked at the pros and cons of the formulaic language. I'm not at all surprised that we came to the sense that we want to be forward-looking but not tie ourselves to a formula.

Now I'd like to introduce the second topic, which is the release of the minutes. What I propose to do is to call on you in exactly the same order as before in lieu of asking people to

raise their hands again. This topic was covered in one of the memos that were distributed, and I think that memo lays out very clearly the pros and cons. This strikes me as an area in which we are once again balancing a lot of considerations. My view on this is that, if we decide to release the minutes earlier, that is a decision we cannot adjust—unlike the risk-assessment issue that we just discussed, where I believe we can choose to include a risk assessment or not. If we move up the publication of the minutes, we are stuck with that decision—not just for this Committee but for a very long time. Therefore, as the Chairman indicated in his opening remarks, on this one we have to be very, very careful. If we were to decide to release the minutes early, in all honesty I think it would be roundly applauded by many people—academics, perhaps other central banks, and even the markets. I had a discussion on another issue with the board of directors of the Bond Market Association, and a number of them independently came up to me afterwards and said, “Release those minutes earlier.”

Having said that, I have come to the conclusion that, on balance, doing so may not be well regarded in the long run. The reason is that I firmly believe that there would be an obvious interaction between that decision on the minutes and the discussion at our meetings. One of two things would likely happen over time. One, the discussion itself would become less thorough and rich. The members would express fewer opinions about what might happen should some development emerge. I suspect the conditional statements we often make would not be expressed so fully, and I think that would limit our ability to share our views and understand each other. Or two, which is equally bad, the minutes would become a less accurate reflection of the discussion that took place at the meeting. That is, we might have these forward-looking conditional discussions, but they wouldn't be captured in the minutes out of anxiety that the markets would react negatively. Vincent's chart points out that, in fact, our minutes have served

us quite well because they are very full and complete but they really haven't moved the market, with one noticeable exception. I'm afraid that if we accelerate their release so that they are closer to real time we would find ourselves intervening with the market more often.

That leads to my second concern, which is the announcement effect of the minutes. I believe it is far better for this Committee to speak once contemporaneously with the decision and then let the markets look at the incoming data and react as opposed to coming back two or three weeks later with another round of Fed interaction with the market. I think that doing so, if anything, will limit our ability to read the market fully. The reason I chose to speak first on this topic is that I believe that it's extremely important to think of this in a risk-assessment context. While many people would argue that the benefits outweigh the risks, I am firmly of the view that that is not necessarily the case. So before we move headlong down this path, we need to think about it very, very carefully. Having had my intervention first, let me go next to President Hoenig.

MR. HOENIG. I'll combine a couple of things at this point. Let me start out by saying that, if the consensus conforms with the view that you have just summarized, I can live with that. I originally was in favor of releasing the minutes earlier, and my thinking was that doing so would allow us to get rid of the risk statement. I know there is the thought that we can't move back from a decision to accelerate the release of the minutes, but I think the quid pro quo of eliminating the risk statement could be favorable. So that has some appeal to me. Plus the minutes give the market a more complete reflection of the broad views of the Committee members, and there is perhaps a benefit from that.

I think that assessment still holds. However, I recognize your main point. I've been down that road before: You jump, and then you've done it, and you can't back out. So I don't

have a problem with approaching the decision slowly, with a lot of thought. But I think it is a step worth considering and deliberating. As for some of the comments that arise in our discussions, certainly if the minutes are not released for two or three weeks, what we say in public statements during that period can be more complicated. But I think we live with that to an important degree now. So I don't see that as a very significant complicating factor. The news event of the minutes could be an issue if somehow the minutes give a completely different view of our assessment of the balance of risks than the statement did when we released it. So I think the proposal to advance the publication of the minutes deserves continual thought if not acceptance at this point.

Finally, I'm just going to go ahead to the next item, the role of our individual projections. My thought was that, if eliminating the risk statement were viewed as a backing away, the projections could be the substitute in terms of filling in for information that is forward-looking. That's not as critical to me as the idea of releasing the minutes sooner to make public the general views of the Committee. I'll stop there.

MR. FERGUSON. President Santomero.

MR. SANTOMERO. Thank you. I don't view releasing the minutes earlier as necessarily a bad idea. I do have two caveats associated with that view, and they are important to me. The first is that we should not do so and also expand the "blackout period" so that we end up with three or four weeks of blackout, essentially moving us backward rather than forward. Second, we should not release the minutes with such rapidity as to get ourselves into a mechanical problem that could later become a political problem. What I mean by that is that, in my view, every member should have an opportunity to see the minutes and be comfortable with them. We don't want to find ourselves in a situation where there is a difference of opinion about

what should be in the minutes or what was said in the meeting and have no way of resolving it because of the pressure of time. The way I expressed it in my notes on the subject is that at a different time with a different staff we could find ourselves in a contentious environment, with disagreement among the Committee members as to what we wanted to say in the minutes. I would hate to have a situation where the resolution is rushed because the minutes have to go to bed by Thursday, say, or otherwise the markets will see that there is discord in the Committee.

With that mechanical piece of it resolved, I think we could in fact release the minutes somewhat more rapidly. When I was thinking about all this, I wondered how rapidly that was. Are we essentially talking about moving up the publication by a week and then getting into an overlap with the next FOMC meeting, or are we talking about releasing it in two weeks with plenty of time for everybody to get a chance to review it? I thought perhaps we should consider doing a dry run without actually releasing the minutes early. We could say suppose we were to release the document in three weeks, what would be the mechanics? Could we get there? I'd try that during 2004 and see, with the benefit of a year's history, if we are comfortable with the prospect of accelerating the preparation and release of the minutes. So that's where I am.

MR. FERGUSON. So you come out with trying the mechanics of this without going to the last step of releasing the minutes?

MR. SANTOMERO. Yes, to make sure that we're happy with the results. We can have a whole year of experience. We could ask ourselves, If we were going to release these minutes, do we think that would change the market? Why or why not? Do we think the mechanical issues would make it impractical to release the minutes for four or five weeks and then would that interfere with the next FOMC meeting? A dry run would give us an opportunity internally to see how this would work.

MR. FERGUSON. Okay. President Santomero has laid a third alternative on the table. President Stern.

MR. STERN. I've long been relatively enthusiastic about releasing the minutes earlier, and that continues to be my view. I think Tony's suggestion for doing some dry runs is a constructive one. I've basically thought that the minutes are an underappreciated asset. They contain a lot of information, but people don't pay any attention to them because of the timing of their release. So I'm interested in having them taken seriously. I'm making what is perhaps a naïve assumption that the substance wouldn't change. After all, the minutes are based on a transcript of the meeting, so to some extent I think that's a reasonable but not foolproof assumption. Your comment, Roger, about hitting the market a second time and perhaps creating more chaos than being helpful gives me a bit of pause. My ultimate reaction to that, though, is that there's bound to be some learning period that's going to go on for I don't know how long—months, quarters, or maybe even a year. But I would think that over time market participants would come to understand what's going on. And in my view, the better communication is worth the price.

MR. FERGUSON. Governor Gramlich.

MR. GRAMLICH. Thank you. First, Roger, I thought you had a very good summary of the first discussion. There was something you said then that I would like to emphasize regarding the last item in the first column in Vincent's table, "discontinue the assessment of risks portion of the statement." I believe that you said we would be flexible about the risk statement but we would not eliminate it. That happens to be my position. I think that from time to time people are going to want a bottom line, and I think we ought to give it. We can be flexible with it—we have been flexible with it—but I wouldn't want to eliminate it.

On the minutes, I frankly used to agree with you that it was good to release them after the next meeting and keep them out of the news. But this latest episode has turned me around because it is now clear that many people think—even though it is not true—that we used the minutes, say, from our October meeting to amplify our December message. While that is not true, once the suspicions are out there it's hard, no matter what we say, to get rid of them. So I am somewhat reluctantly going to the notion that maybe releasing the minutes earlier is in order. That is, after we have the meeting, then two or three weeks later—whenever the staff can prepare them—we publish the minutes. I think we ought to keep the minutes just the way they are now. I agree with Gary that they are an underappreciated asset, and I wouldn't change their substantive content at all. I'm persuaded that the Committee is quite ethical, and I don't believe we would change them. I think the process would go forward just as it does now with the one exception—that the minutes would come out three weeks, say, after the meeting.

I would agree with Tony in that I would not change the blackout period. Pretty soon we could be blacked out totally! So I'd keep the blackout period the same. We'd really do everything as we do now except that we'd release the minutes three weeks after the meeting.

On the experiment, it's my impression, Vincent, that you already did that. You accelerated the preparation of the minutes this last time, and I didn't notice any loss of output or productivity. Maybe somebody did, but I thought they were just as they always have been. So even provisionally I don't think we need to experiment much.

MR. REINHART. We did the easy part of the experiment, which was the staff side. Well, it may not have been easy for the people actually drafting the minutes. We created a rough draft by about this time next week. We'll do that again. The harder part of the experiment is resolving how you will comment on the draft. Will you want to see other members' comments?

How will you know that the Secretary has incorporated your comments and weighed various suggestions against each other? How will we deliver it to you electronically in a secure manner? So there is some work to do. Also, we need to think about the rules associated with the production of the minutes, such as the deadline for submitting comments and other items of that nature.

MR. FERGUSON. President Broaddus.

MR. BROADDUS. I strongly favor moving forward the release of the minutes, but let me review briefly how I get there. I go back to the basic principle of the way I understand how monetary policy affects the economy—what we used to refer to as the transmission mechanism. Namely, what we do and what we say affects expectations about future policy and interest rates generally. That is the foundation on which I build all of my thinking about this. With that point of view, it seems to me inescapable that we have to have forward-looking statements. And to me it's highly desirable for us to try to give some sense of how we see the balance of risks in the outlook. So I come out on that where Don and Mike did. I feel strongly that we have to have a forward-looking element in our statement; I don't see how we can do without that.

Going back to our earlier discussion, it's also clear to me, largely from the work of Roger's working group, that it's going to be very difficult and probably impossible to convey this forward-looking assessment with a brief post-meeting statement. Even if we had some additional sentences, I just don't think that's likely to work. So that is what leads me to conclude that we need to consider moving the minutes forward. The minutes are detailed enough to convey—as they already do—both the majority and minority opinions about the outlook and the balance of risks, and they do it reasonably robustly. Also in terms of transition, the public and the markets are familiar with the minutes. Yes, I realize there's a risk that they may change if we

change the regime here. Still, the general form and content of the minutes certainly are going to be similar, so they will be familiar to people.

There are obviously drawbacks. It's not a freebie. It's not a panacea. A lot has already been said about that. Obviously, too, staff and Committee members are going to have to be willing to devote time in the period right after the meetings just to go through the process of getting the minutes ready for release. And that's not trivial. It's going to require changes in schedules and practices. I don't see how in the world we can make a blackout work. So there is the risk that statements we make will add some noise to financial markets. But markets know how to discount that type of thing already, so I'm not terribly concerned about that.

I must say that some of the points you raised, Roger, are worth thinking about. I'm not sure that I've thought them through completely enough yet. On the point about our hitting the markets a second time, my initial reaction is to try to imagine what this new regime would be like where we are continuously releasing much earlier a lot more information about what went on at each meeting. It may well be that, in that sort of atmosphere, it wouldn't be news in the same sense that the statement is news now. I just haven't thought that through completely, but it's a point worth making. In any event, for all these reasons I think releasing the minutes earlier is our best alternative. If we did that, we should continue to issue a statement immediately after the meeting. And that's how I got to the conclusion earlier that something on the order of the gradual evolution path would be okay for the statement if we took these other measures. But I can't separate them.

MR. FERGUSON. Okay. Governor Bernanke.

MR. BERNANKE. Thank you, Governor Ferguson. One of the reasons we find it difficult to issue a policy statement is that there's such a wide divergence of views around the

table. The special advantage of the minutes is that they represent the diverse views and give some perspective and depth to the discussion. They also include a lot of valuable and interesting information from the staff presentations about the state of the economy. So I would be very much in favor of moving up the publication of the minutes. I would note, to address Governor Ferguson's concerns, that we would not be the first central bank to use the minutes this way. Many central banks around the world do that without problems as far as I'm aware.

With respect to the blackout, I think extending the blackout period would be counterproductive for many reasons. One of them is that it would be like a drum roll up to the minutes that would in fact exaggerate the impact of the minutes. So I would favor keeping the blackout as it is. No one has mentioned this—the Chairman might want to weigh in on it—but it might make sense on the regularly scheduled two-day meetings to hold the minutes until after the Chairman's testimony but just in those two instances.

Finally, with respect to the idea of dry runs, perhaps one or two might be worthwhile but it seems to me that, if we are going to make some changes, it would nice to be able to announce them as a package. Doing dry runs for the whole year would limit in that respect the impact of the overall change, if there is one, in our transparency policy.

MR. FERGUSON. President Minehan.

MS. MINEHAN. Thank you, Roger. First of all I'd like to congratulate you on your somewhat brilliant description of gradual evolution. I think there was something in there that everybody could hang onto and like.

MR. FERGUSON. Oh no, you caught me!

MS. MINEHAN. It's going to be interesting to see this evolution. But as you've described it, I'm comfortable with it, and I think that's the way we should go. I must say that I

thought Governor Bies was correct and conveyed my sense of the value of ambiguity in a short statement. We've used it a lot. If one goes back and looks at the statements we've issued over the last three or four years, they've contained a lot of vague wording. But they've also conveyed a decent sense of where the Committee was going without tying us down. So I think there is some value in ambiguity—and not just because it may result in a shorter statement or any reason like that. So I want to put in a little vote for some constructive ambiguity, if I may call it that.

I have long been in favor of releasing the minutes early and had begun to question myself a little on that for some of the reasons that Roger just mentioned. But as I throw my concerns back and forth I come out on balance in favor of releasing the minutes early. I was looking at it as a quid pro quo for eliminating the risk statement. I'm not so sure we can use it that way. I tend to agree with President Moskow that totally eliminating the risk statement might be viewed as taking a step backwards, but I'm not sure about that. There is an issue that nobody has talked about with respect to the release of the minutes that goes to the diversity of opinions that are expressed in them. If we put the minutes out early, those opinions are public at a time when they have some meaning with regard to the next meeting. Suddenly there may be a drumbeat from the press and other places as to who said this and who said that and who said the other thing. There's a possibility that that could affect us, although I don't agree with a blackout either. In any event, it may be obvious by the time the minutes come out where the nuances of perspective are at least among some of the more publicly active members of the Committee.

I think President Santomero has a good idea—and it's one that I had in my notes as well—in suggesting that we should parallel test this. If I recall correctly, not only the December minutes but even the minutes from the meeting before that were done somewhat earlier than usual. But I didn't look at them in the same way that I would look at them now—in terms of

what they say versus the prevailing views in the market and whether there would likely be any market implications when the minutes are released. Do I think they would have a big impact or not? So I would favor a period of parallel testing of this if people think it's worthwhile going to the extra trouble to do that. Frankly, I wouldn't make any discernible changes in our communications process before doing that or much before midyear or so. I don't think the gradual evolution in the statement would be viewed by the market as a major change. And if we're going to release the minutes early, we need some time to really think about that as a group and see how we feel about it when we review what's in the early renditions of the draft minutes that we get.

MR. FERGUSON. Thank you, Cathy. I always make it a practice of calling for a coffee break whenever anyone says something nice about me. This seems like a good time to have a coffee break.

SPEAKER(?). Now I'll know in the future!

[Coffee break]

MR. FERGUSON. President Parry.

MR. PARRY. I'm interested in but not yet enthusiastic about accelerating the release of the minutes. I think the information advantage to the markets of getting the minutes roughly in their current form several weeks earlier would be meaningful. But since the earlier release of the minutes would become a significant policy event in itself and since it precedes the next FOMC meeting, I am concerned that the accelerated minutes would be different and perhaps less informative than the current ones. I also worry that our discussions would be affected by the knowledge that the market would focus more sharply on the minutes than they do now. That leads me to the view, if we're going to pursue this—and I'd certainly be supportive of going the

next step or two—that we should have trial runs or parallel processes. For me the issue is not getting the minutes drafted—I think the staff can do that readily—but the process of editing and resolving any disagreements that may arise with regard to specific editing changes. So in my view there's room to look at this further.

MR. FERGUSON. Thank you. President McTeer.

MR. MCTEER. Governor Ferguson, I think Cathy described your summary of the risk-assessment discussion as somewhat brilliant. I agree with that although we don't need another coffee break! [Laughter] When you summarized the discussion I thought you had left open the possibility of discontinuing the formal risk-assessment portion of the statement. But Governor Gramlich indicated that he thought you hadn't. I would urge you to keep considering that option. Many of you have emphasized the value of continuing to have something that is forward looking, but I think there is the possibility of having forward-looking, relevant information in backward-looking statements. When we take an action at a meeting and we say why we did it, we are giving information about the kind of development that triggers an action by us. If those conditions change or if they don't change in the next several weeks, then market participants can form their own conclusions about the implications of that.

Moving on to the release of the minutes, I thought your preemptive description of that was brilliant, not just somewhat brilliant. I agree with all of it. I was prepared to trade away something on the minutes for the elimination of the risk assessment. But I agree that what we have in the minutes now is very good, and given my druthers, I'd stay with our current procedures. By our releasing them after the next meeting they're available for scholars, economists, and others to do what they want with them. They don't disturb the markets. Putting them out before the next meeting I think inevitably is going to disturb the markets. The only

time the minutes could come out before the next meeting and not do damage would be immediately after the meeting they're describing, which is obviously impossible. So I agree with everything you said about releasing the minutes earlier. Of course, this puts us on the wrong side of what people perceive as inevitable history. We're not going to be regarded as progressive in terms of transparency. But I do believe your position is right

With regard to blackouts, I think the blackout period after our meetings is already an anachronism, and we ought to be considering shortening rather than lengthening it. To me the blackout several days before the meeting is useful. But once we began issuing statements on the day of the meeting, the post-meeting blackout no longer served a useful purpose.

MR. FERGUSON. President Guynn.

MR. GUYNN. Thank you, Governor Ferguson. I agree with your characterization of the way to think about this as being risk management. That's a concept the Chairman has used in other policy discussions. I don't think the risks are so large in terms of the process of producing the minutes, though I see some small risks there. And like most others who have spoken, I don't like the idea of a blackout of essentially half of the period between meetings. I think that would be a terrible step backwards.

To me the larger risk—and this is going to seem strange, but I take a different view from the one you expressed—is that, rather than being less informative, the minutes could become more informative in an unfortunate sense. You were saying that perhaps the discussion would be more careful and more circumspect and as a result the minutes would not be as informative—a point that Bob Parry also mentioned. I think it's possible that it could go the other way and that some people would be trying to get into the minutes their own particular way of thinking about the economy. That could inadvertently lead to a lot of time being spent in the meetings trying to

get our preferred points of view into the minutes and more time spent arguing during the editing process about how much of that language survives. And it seems to me, as Cathy Minehan suggested, that the minutes will be read more carefully if they come out before the next policy meeting. So depending on whose views the readers pick out of the minutes, if we have that kind of jousting for phraseology and language in the minutes, we could in fact end up with minutes that are more informative than we really want them to be. I see that as a larger risk, as strange as that may sound. I just don't think we need to go in that direction right now. And once we do, we'll have a very hard time going back the other way. So I would strongly prefer to sit tight.

I also originally thought of the early release of the minutes as a possible tradeoff to get away from the risk assessment in the post-meeting statements. But I think there's another way to make that kind of trade and it's in the Monetary Policy Reports. We'll come back to that shortly; that's an issue I would like to keep open also, as President McTeer suggested. Thank you.

MR. FERGUSON. President Pianalto.

MS. PIANALTO. Thank you. For all the reasons that were listed as pros in Vincent's presentation, I was leaning toward supporting early release of the minutes. However, some of the cons listed on the same page and in Brian Madigan's memo are more troublesome to me. I think they also present some greater risks, especially the temptation to send signals and the ability to make conditional statements—some of the points that President Guynn just made. Also, there's the issue that President Santomero raised about the ability to work out differences among Committee members or the Committee and the staff in a timely fashion. Those concerns cause me to step back and not support early release at this time. I was also going to recommend, as President Santomero did, that we do some dry runs if the Committee at some point feels compelled to go in this direction. I think we really do need to have some practice with this

process to make sure that we are working out all of these issues, especially those that are listed on the “cons” side. So at this time I’m not willing to support early release of the minutes. I want to have a better understanding of some of the issues that have been raised.

MR. FERGUSON. Thank you. Governor Bies.

MS. BIES. Thank you, Governor Ferguson. I’m going to come out on the side of supporting earlier release of the minutes. Let me tell you why. In response to the comment that the early release of the minutes would be another news event and could move the market, I’d point out that we are out giving speeches all the time. Our public statements all have the potential to move markets on occasion, and in fact it has happened. To my mind we’re better off releasing the minutes. At least then there’s a balanced approach, with the diversity of views presented at one time rather than the views that get press attention being dependent on whose speaking engagements come where on the calendar. So I think that the earlier publication of the minutes would diminish the news events. It would help put into context when a Bank President or Governor is speaking where their views are in the continuum of views expressed at the meeting that had just occurred. I believe it actually would help lessen the “news” impact compared with the reaction to our speeches. I also don’t want to extend the blackout period because I think our public appearances are a critical way for us to communicate between meetings. We can communicate when economic conditions have changed from those that led to the decision we made at a meeting; new data may get us moving in a different way. So I would hate to extend the blackout period.

Let me comment on one of the alternatives regarding how to handle the approval of the minutes—whether we should do that as a subcommittee or not. I strongly disagree with the subcommittee approach. I think all of us need to be involved because these are our minutes and

they are very important. I would feel very uncomfortable having a subcommittee perform that function. I also would like to see us go ahead and do the dry runs where all of us have to make sure we schedule time to read and comment on the minutes. Given that we couldn't pull back from the release date—but we could always release them earlier—I would suggest that, if we do go forward, we release the minutes with a relatively long window for the drafting and approval process. If we get better and faster at it, we can move up the publication date, but we can't go the other way. So I would leave us some room and start with a longer period initially.

MR. FERGUSON. President Poole.

MR. POOLE. Thank you. I'm quite skeptical of early release of the minutes. Let me say that I start from the position that the minutes must absolutely be true to the transcript that is going to be released five years later. We can't have a discussion of an issue that might be sensitive and leave it out of the minutes entirely; somebody will look at the transcript later and say that the minutes just didn't reflect what happened at that meeting. So I think that's a very important consideration.

As I think about my own experience, not too long after I came here in 1998 we had the problem of the Long-Term Capital Management hedge fund and the related upset in the securities markets. If I recall—and my recollection may be wrong, but that doesn't matter for this purpose because we could imagine it taking place—at our August meeting of that year we had some discussion of what was going on at that fund. And we had an interim conference call discussion before the September FOMC meeting. If we had released the minutes for August on some standard schedule along the lines of what is being considered now, they would have come out just at the time that all hell was breaking loose, if I may put it that way, in the financial markets. Now, unlike Governor Bies, I think there are times when it's very constructive to be

quiet and not to say anything. Even if one has a scheduled speech, there's a way of giving a speech and not saying anything about the FOMC and monetary policy. I think we've all been there. But if the minutes are coming out and they're going to be true to the transcript, we may not have any choice but to say in the minutes what went on at the meeting. So, that's one of the reasons that I come out against early release of the minutes.

There's also a practical issue that was not discussed in the working group's report; I don't know whether they considered it, but I think it would need to be considered. What happens if we want to have an interim meeting a couple of days before or a couple of days after the date the minutes are to be released? How does that complicate our situation? Does the release of the minutes then muddy the message that comes from a policy decision at an interim meeting? Or if the minutes are released a couple of days before an interim meeting, what do we do? What is the release schedule for minutes of an interim meeting because, as I recall, those traditionally are attached to the minutes of the earlier meeting? I don't know whether or not those issues were discussed, but it seems to me very important that we think through how we would handle those types of situations. I'm quite skeptical about moving up the release of the minutes because when we look at all this carefully, I think we're going to find a lot of very sensitive and potentially unfortunate interactions of that kind.

MR. FERGUSON. Governor Kohn.

MR. KOHN. Thank you, Governor Ferguson. On balance I'm leaning in favor of early release of the minutes. I think there is a lot of information in them. It's a much more complete explanation of why we did what we did and how we look at the future—points that I made before in talking about the statement. And as President Minehan said, the minutes do give a sense of alternative perspectives. Partly because we have so few dissents on the Committee's policy

decision, I think it is important to get the sense out there that there are alternative reasons for arriving at the same decision. Consequently, though I do think early release would move markets and it could be uncomfortable from time to time, on balance I believe that over time it would result in markets being more stabilizing by moving in directions we want.

I do recognize the concerns that President Poole, President Guynn, and Governor Ferguson have raised. They also have raised some technical issues about intermeeting moves or discussions that we need to think about carefully. And I do think it would require some discipline on the part of the Committee to avoid having the earlier release of the minutes cause feedback effects on the Committee's deliberations. I like the idea of the dry run. I'm not sure we need to go through a whole year of dry runs, but we should do them at least for a while. And it's not only a production issue. It's a matter of thinking about what these minutes would do to the markets if they came out today. Now, the value of the dry run is limited because, with our knowing that it's a dry run, we won't get the feedback of the minutes on the deliberations. But I think it can at least help inform a decision later if we have a number of instances of the dry run.

MR. FERGUSON. Thank you. President Moskow.

MR. MOSKOW. This is a very important issue, and on balance I come out favoring early release of the minutes. It might make us a little uncomfortable at times; but I think, as the document said, it will also make us more accountable, and in my view that's a plus. It's a real positive in that it improves our transparency. Quite frankly, in this age of rapid communication it's hard to justify holding off for six to eight weeks before we release them. It's a red face test that I find difficult. I know we can always say that we have to approve them at the next meeting, but again in this era of communication I find that hard to justify. I think the minutes are a supplement to the statement that we release shortly after the meeting. I don't view them as a

substitute for that in any way. So to me it's an additional bit of transparency. I think Tony's suggestion of a dry run is a good one; we need to work out the mechanics and to set the rules for processing the minutes. I don't think a full year is necessary, but it would be helpful to have a dry run.

Let me touch on the two points that Roger made, which are both very important. One is that it may affect the Committee's discussion. On balance I really don't think it would affect the comments at the meeting all that much. The only time it might have an impact is when we make conditional statements—for example, that if certain developments occur, we may need to have an intermeeting telephone call. I think we'd have to work out some way to deal with those types of circumstances. I don't know exactly what that should be, but we do have to address that. Other than that, I just don't see it affecting the discussion at the meeting any more than the release of the minutes after the subsequent meeting does. As for the other point about speaking once in our post-meeting statement and then letting the markets interpret the data, I think Susan Bies put it very well. We are all individually speaking at various times, and in the process we generate a lot of news events. The press is covering us more than we would like. That's just part of the process, and if we release the minutes earlier, the markets and the press will become accustomed to it.

On the blackout, I agree completely with Bob McTeer that the blackout period after the meeting is obsolete. I think it could be shortened quite considerably. We did shorten it about eight years ago as I recall. It used to go through the weekend, and we pushed it back to the close of business on the Friday after the meeting. In my view, we could easily move it back earlier. As for Bill Poole's comments about the timing of interim meetings, I think these are important issues to think through ahead of time, but on balance I believe they're manageable.

MR. FERGUSON. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Coming new to this discussion, I have been more moved by the arguments in favor of accelerating the release of the minutes than I am troubled by the arguments against. But the arguments against are proliferating, and those arguments are significant. Some of them I hadn't thought through, and I believe they're worth thinking about carefully. My general sense is that we should try to get ourselves more comfortable than we are now as a group with moving toward early release. Whatever ways we can get ourselves more comfortable are worth investing in. I would offer the qualification, just to amplify what Don said, that I doubt a dry run is going to tell us much about what's really material to the choice here. It won't tell us anything about the market dynamics. It won't tell us anything about how the decision will affect the dynamics of the discussion. It won't tell us anything about how hard it is to get a consensus on the minutes if the differences of view become consequential. My sense is that we should think through these two specific questions of whether it complicates an intermeeting decision or reduces our discretion on intermeeting action. And we should explore a bit Bill Poole's question about whether there are discussions we would have in this room—on subjects such as a major financial system issue—that we would not want to mention publicly within six weeks much less three weeks or two weeks. I think those matters are worth exploring, frankly, before we take this next step of going into a dry run. But just to end where I began, I think it's worth trying to see if we can get ourselves more comfortable with moving in this direction because I suspect the returns are worth it.

MR. FERGUSON. Governor Olson.

CHAIRMAN GREENSPAN. May I ask the Vice Chair a question?

MR. FERGUSON. Sure.

CHAIRMAN GREENSPAN. What do you have in mind? Let me put it this way: A dry run as an abstraction obviously has a purpose. You're suggesting that it won't work. Nonetheless, you're agreeing with the purpose of it, which means you have an alternate suggestion.

VICE CHAIRMAN GEITHNER. Why don't we ask the barons of this place to explore a bit some of these technical questions that haven't been explored in detail in the paper? Why don't we ask them to do that, and come back to us before we go through the mechanics of launching a dry run? I suggest that because I think those issues are more important, frankly, than what we're going to learn in a dry run.

MR. FERGUSON. Let me give Governor Olson a chance to speak, and then I'll try another summation—or the Chairman may want to speak, and then I'll try another summation.

MR. OLSON. Let me make a couple of points. First of all, I think there are two goals in this process: clarity and transparency. Going back to the risk-assessment issue and speaking as a gradual evolutionist—regardless of what alternative we might have chosen among the risk-assessment alternatives—in spite of the fact that we think we do a pretty good job of communicating, not everybody in the market agrees. So no matter what we might have decided on the risk-assessment issue, some people would have said that we had not increased either the transparency or the clarity. As for moving up the release of the minutes, I don't see how there can be any question that doing so would be an improvement in our efforts toward both goals.

I haven't been involved in this process on this side of the walls for as long as many of you, but I started following the Fed from a public policy point of view over thirty years ago. And it seems to me that something the Fed has done to improve itself is to increase its transparency. The statement on the policy decision, the expanded minutes, the concurrent

release of the vote, and the release of the transcript all have helped to reduce some of the mystery regarding the Fed. I think that the Fed operates in more anonymity than almost any other public or quasi-public body. And how we continue to deal with the question of transparency is a matter that I think we want to control and not have somebody suggest to us that we ought to be doing more.

Having said that, I want to come back to Governor Ferguson's opening remarks because I think what he said is critical. In this instance, once we have made the decision, we can never go back. So of all the options we're looking at, this is one that we need to consider with the most deliberation. I would suggest that, if we move in this direction, we do a dry run and simulate the process at the same time. Even if it doesn't change much—and I think it will—it has the potential to change a great deal, and the simulation may suggest to us issues that we may not have thought of. So I'm in favor of the early release of the minutes, but I'm in favor of doing it under a variation of the Santomero approach—that we test it very carefully before going forward.

MR. FERGUSON. Chairman Greenspan on the early release of the minutes.

CHAIRMAN GREENSPAN. There is a major issue here that I find troublesome, and I don't know how to get around it, though I recognize that it may be feasible to do so. It's the issue that Tony Santomero has raised. We have very scrupulously avoided a nineteen-member communiqué-type discussion of the post-meeting statement. Now, if we take this issue of individually editing the minutes seriously, it involves a very standard procedure that, if we actually followed, we would never finish by the time we now release the minutes. That's because we all would have suggested additions and deletions. And additions and deletions change the context of what we have in the minutes. At our meetings we typically have three or

four hours of discussion, and writing the minutes to fully capture what went on is an art. The notion that we would all decide on what to include in the minutes that would fully reflect our discussion or that we would agree on how to say it is just not believable. It's not a big deal now because the impact on the markets and the impact on what we do is not very large.

I do think that this is really an unknown. We have no idea how this process would work. It is quite conceivable, if we go ahead and subsequently find out that we can't make it work because we are running into the equivalent of a nineteen-person communiqué, that we're going to have some very serious difficulties. It may mean that we will so diminish the minutes that the issue Bill Poole raised—namely whether they will look like an accurate reflection of the transcript released five years later—will become a very serious credibility issue. I frankly don't know the answer to that. That's one of the reasons I think the trial runs, or the equivalent of what the Vice Chair is talking about, have a certain ring of desirability.

My judgment, as I've said before, is that in a very general way we ought to be seeking to find as our ultimate communication vehicle a way that, when we make a statement after meetings—regardless of whether we act or don't act—nothing happens. What that suggests is that anything we can do to converge the amount of information currently available in the intermeeting period to the point at which we make our decision is to the good. Theoretically that would suggest that we definitely should speed up the publication of the minutes because by construction that would do it. We have one problem, however. The problem is that apparently the markets overreact to whatever we say. If that is indeed the case, then to move up the release of the minutes could be counterproductive to our goal. Frankly, I don't see how one can know the answer to that particular question.

There's very little doubt that a goodly part of our deliberations has become increasingly conditional. Indeed, the whole pattern of the most recent period has been characterized by this evolving "considerable period" discussion, which is a contingency if I ever saw one. And we're going to do more of that because a risk-management mode is invariably emerging as the way we operate. What I was identifying in the AEA paper I delivered at the beginning of the month was actually what had evolved in this Committee. I was not suggesting that there was some point when we said: "We are going to take a risk-management view of monetary policy." It didn't happen that way. It was, as we like to say today, gradual. The reason that has happened is that these markets are changing and becoming ever more sophisticated, so our approach is of necessity trying to match that degree of sophistication and is continuously evolving. Consequently, I think it's very difficult to know whether releasing the minutes earlier will be a plus or a minus.

A number of things could start to happen of which I don't think we're aware. Nobody has mentioned the obvious thing, which I'm sure will start to occur, which is that there will be pressure to identify the people who took various positions. We don't get that now because virtually nobody except the academics reads the post-meeting minutes. But I don't think it's credible to believe that that's not going to happen. Susan Bies made a very important observation—namely, that there is a tendency for our speeches not to be uniform. We have nineteen members in this group, and I will submit to you that the distribution of words uttered publicly between meetings by members of this Committee is highly concentrated; I would say that most of the statements are made by significantly less than half the members. And I don't think they are necessarily a representative half. So in that respect it's useful, as Susan said, to get the minutes out to provide some specific context for the policy decision.

Having listened to the conversation today—and I must admit that I have been on all sides of this issue over the years—my sense is that it gets more and more complex. The one thing I'm sure of is that we ought to be reasonably certain how we think this is going to come out before we move. I don't know what vehicles we could use to become reasonably certain. I do think the trial run is not going to solve the problem, as the Vice Chair points out, but it will give us some insights. And I'm sure that trying to work our way through what we would do under various conditions will be helpful. The crucial question, however, is what we will do about contingent statements. If we decide to leave them in, there is a fairly significant risk that we're going to increase the volatility going into the next meeting. If we take them out, we are doing an injustice to the intent of conveying what actually went on in the meeting; and without them, we may in fact make the meeting minutes incoherent. In other words, somebody will note that something obviously went on that's not mentioned in the minutes because the discussion doesn't seem to track. People are not reacting to each other's views. When the contingency statements are put in, it all comes together.

So of the three issues that we've raised here, I think this is the toughest one. I understand the notion that we are a public institution and we have an obligation to the electorate to be forthcoming in all respects short of that which diminishes our capability to do what we are statutorily required to do by the Federal Reserve Act. And we are the only ones who can make that judgment unless we do it so poorly that somebody else will impose a different judgment on us. But we can be certain, as someone said—I believe it was you, Mark—that the judgment imposed on us by somebody else would scarcely be better than one we would make.

So the way I come out at this stage is that I'm a little concerned about moving forward on this. But because of the public nature of this institution, I do think that we have to try to see if

we can move forward on it. Before we act, though, we have to be reasonably convinced that it will not make our job on monetary policy, which is the most important issue here, more difficult to implement because we've set up barriers to our ability to function effectively. If that in fact happens, we are doing a grave disservice to our mandate. I think the crucial issue here is not an issue first and foremost of being transparent. The crucial issue is to do the right thing in terms of our monetary policy decisions. Being transparent merely involves explaining what we did and what we might do. But if in the process of the explanation we undercut our ability to do the best thing, that to me is a net loss.

MR. FERGUSON. Thank you. Let me first disclose what I think the tally is. There are, I believe—it's hard to get all the nuances right—seven or maybe eight people whom I would describe as not enthusiastic. The remainder apparently feel that they've weighed the pros and cons and on balance are more comfortable going ahead with an earlier release of the minutes. The obvious middle ground is to undertake some form of testing as best we can, understanding that what Tim Geithner said is true—the ultimate test will not occur until we actually release the minutes. However, I suspect we all believe, since no other approach immediately comes to mind, that we ought to try a bit of a dry run. That's one thing to do.

Another thing we can do, which I have done, though maybe a lot of you have not, is to read some of the minutes from other central banks. We can ask the staff to circulate them, and you'll see that some look familiar in terms of being consistent with what we do. Some, such as those from the Bank of Sweden, are very much in the mode that Tony Santomero suggested: One member said X, another member said Y, and when you're through what you get is a one-paragraph version of the transcript. So there's a range in the way the minutes could be formulated. I propose that we circulate some examples so people can see what minutes from

other central banks look like. I would propose also that the staff go back and develop a way to work through Tony's thought of having a bit of a dry run for long enough to test some of the concerns we have raised. Doing a dry run for just one or two meetings this year may not prove to be much of a test because the probability—though I can't predict it fully—that we're going to be in a mode where we're talking about contingencies and potential changes in interest rates doesn't seem so high. On the other hand, if we conduct dry runs for a year, I think we will get to a position where we are at least having more serious discussions of changes.

So I think we could conclude by saying that we should go forward with some sort of concept of a dry run, with the staff trying to give us an idea of how the minutes would look and how this process would work. We could proceed down that path, recognizing the concerns that have been raised and the fact that, as Tim has picked up, this is a very close call. Even those who are enthusiastic see some risks, and a number of other people clearly are not enthusiastic. Does that seem like a reasonable place to end this discussion, knowing that we'll have to come back to make a decision on how to do the dry run and then once the dry run is done we'll look at this again? Cathy Minehan.

MS. MINEHAN. I would just like to interject that I think we can make the dry run a bit more effective, recognizing that, as Tim said, we won't really know what the market feedback would be. Nonetheless, we should put some effort into addressing the minutes issue by preparing them for publication and then reading them again at the time they would have been released in the context of what's going on in the markets. We could then come to some assessment of what the impact of their release might be.

CHAIRMAN GREENSPAN. Yes, I think that's an important point. We're obligated to take this test seriously. Unless that is done, we're going to learn nothing. If we all essentially try to replicate what we would do in the real game, I think we'll learn something.

MR. FERGUSON. I think the staff needs to help us figure out if there's a way to look at the content of the minutes at the time they are completed as well as the incoming data since the meeting and judge what the market reaction might have been. We need to try to get an approximation, though admittedly a very rough one, of how the markets might have reacted.

CHAIRMAN GREENSPAN. You know what we'll learn? We're going to learn how many iterations we need.

MR. FERGUSON. Oh, we'll learn that.

CHAIRMAN GREENSPAN. That's one of the crucial aspects. I've sat through the writing of too many G-7 communiqués, and that process makes the old sausage factory analogy seem benign. And the FOMC has more members than the G-7.

MR. FERGUSON. Could I suggest in the interest of time, unless someone has a burning issue here, that we move on to the third topic, which is the role of projections. That is also very important to a number of people. Can we start our go-around on that? Would you like to start, Mr. Chairman?

CHAIRMAN GREENSPAN. I might as well since I have the floor.

MR. FERGUSON. You always have the floor! You can exercise that prerogative.

CHAIRMAN GREENSPAN. I have very considerable concerns about this. Let me say, first, that if somebody is merely arguing that we should substitute core PCE for the CPI in our projections, I think that's fine. If somebody is discussing the width of uncertainty bands for the

projections, I'm all for that. But remember what these "forecasts" are. I say that because every six months I have to struggle when I appear before the Banking Committees to try to explain what these forecasts mean. Everything I am discussing at those hearings—which is a reflection of what we said at our previous meeting—is full of vaguenesses here, imbalances there, and my endeavor to convey a fairly broad sense of where the risks are. And then we have point estimates with no specification of what the assumptions are and no specification of what the analytical structure of the forecast mechanism is. What we call the range of forecasts is not the true range. It's the range of means. And that, as everybody knows, is smaller than the range of potential outcomes seen by each individual.

I would almost prefer, if we are going to continue giving these sorts of projections, that we just show the ranges without a central tendency. The reason I say that is that the central tendency isn't a reflection of the way we function. These forecasts were largely provided to avoid having to put out what would really be an interesting forecast—the staff forecast. That forecast is an internally consistent forecast with explicit assumptions and explicit exogenous variables in it, and therefore one has some way of evaluating it. I submit to you that there is no way to evaluate what one is looking at in the forecasts we provide. To make them more elaborate would involve a very difficult process. And to try to average a group of heterogeneous statistics is particularly counterproductive to the subtleties in which we are engaged when we are trying to make very nuanced monetary policy decisions.

Remember that we don't actually function off these forecasts. It is quite conceivable, as has been the case on many occasions, that our "maximum likelihood" estimate—or median or central tendency or any other term you can think of to describe it—is overwhelmed by a particularly low probability event. That low probability event, if it were to occur, is so important

that it overrides the central tendency forecast. The issue of deflation, for example, has been a concern. In none of our forecasts last year did we project anything resembling deflation. Yet I would submit to you that the strongest aspect of our monetary policy had to do not with the forecast or the expectation of the most likely outcome but with that low probability, high difficulty problem.

I have always tried to decrease the exposure of these forecasts, and I've tried very specifically to avoid them as much as possible in my semiannual testimonies on monetary policy. Indeed, as you may have noticed, on occasion I don't mention them in my testimony but they are in the Monetary Policy Report. The reason is that it is very difficult to handle, in part because the outlook might have changed since the forecasts were made. At the point when I'm testifying, these forecasts are three or four weeks old. A short-term forecast that is three, four, or five weeks out of date is really very peculiar looking, and it's hard to have to sit there and try to explain what that forecast is supposed to mean. I've personally found having to deal with that during my testimony psychologically debilitating. [Laughter] But that, I grant you, is not a reason not to provide it.

I certainly think it's wise to put in the core PCE, largely because that doesn't change anything I just said. I don't see how we can widen the uncertainty bands without defining what we mean by them. To talk about uncertainty bands for a set of projections that have no appropriate statistical characteristics to add them up strikes me as stretching our knowledge with regard to the nature of measuring probabilities.

So I think there's nothing to be gained—for myself anyway—by expanding the role of the projections. If we really want to move forward in this respect, then basically it becomes a question of whether or not to provide a staff forecast. We can decide what the exogenous

variables are and instruct the staff to change variables X, Y, and Z on fiscal policy, say, or even monetary policy for that matter, and then we'd have something that has statistical characteristics. I'm not sure I'd be in favor of doing that. It's a huge job.

I don't think expanding the role of our projections is going to help us very much because I don't think these forecasts really correspond all that much to what we say about the economy. At the July meeting I sat there with everybody's forecast in front of me as you all discussed the economy, and I had great difficulty matching the forecasts with the commentary. And I will tell you the reason. When you talk, you speak in probabilistic terms; when you put down your forecast, it's a specific number. If the forecasts really mattered greatly in our deliberations and in our policy decisions, then I think we'd have an obligation to make that clear in order to be transparent and to communicate to the markets that those forecasts are what we're looking at. But we're not. So, to focus on those forecasts would in my view actually be counterproductive to our purpose of being transparent. I think we would be confusing the markets by leading them to think that the forecasts provide a basis for our operations. The markets would react to changes in the forecasts when in fact those forecasts have very little to do with the way we function.

MR. FERGUSON. President Hoenig.

MR. HOENIG. Thank you. Let me just say that the idea of using the projections came to me perhaps more as a reflection of how much I disliked the risk statement than how much I really liked the projections. So, given the almost brilliant discussion of the risk statement, I'm not married at all to the projections. I understand all the issues and concerns, and I agree that we'd have a very difficult time making that work going forward. But I suppose it did serve my purpose in the sense that it illustrated my willingness to get rid of the risk statement. With that I'm going to be quiet.

MR. FERGUSON. Okay. President Santomero.

MR. SANTOMERO. Are we still on the risk statement? [Laughter]

MR. FERGUSON. We're theoretically on the role of the projections. You have the floor.

MR. SANTOMERO. Well, I concur with the Chairman on this one. I think we have to keep in mind that we're not in the forecasting business. And we should not do anything to reinforce the notion that eight or ten times a year we have a forecast of the macroeconomy, no matter what its statistical validity. It takes away from what people should be focusing on as our responsibility. Moving from two to eight forecast releases each year with our thirteen staffs working on the projection estimates would take up a lot of time. And explaining our forecasts on an ongoing basis—discussing their accuracy or inaccuracy—doesn't particularly make sense to me. So from my perspective twice a year for the Monetary Policy Reports is fine.

MR. FERGUSON. President Stern.

MR. STERN. I'm not in favor of changing the way we currently deal with the forecasts. When the idea first surfaced, I thought it was intriguing. But the more I thought about it, the more I thought it would raise more questions than it would answer. We would get into the business of trying to explain or trying to qualify what all these numbers meant. And that would not be likely to turn out to be a productive exercise; or at least, as I tried to go through that exercise for the moment, I couldn't come up with a satisfactory way of doing all that. So I would put this idea on the back burner.

MR. FERGUSON. Governor Gramlich.

MR. GRAMLICH. I agree with everybody else and in particular with the Chairman. I'll make an admission here. I don't really forecast. I have forecasters on the staff over there, and

they do a thorough job. They run alternative simulations. If something looks a little funny to me, I can pick up the phone and ask why that is and dig into it to any degree I want. I don't put down a coherent forecast when I prepare for our meetings. What I do is to try to think how I ought to vote on monetary policy. I was curious on why this interest in our forecasts came about. I read appendix A in the document. It seemed to stem from a somewhat contentious debate between Chairman Miller and Chairman Burns and various members of the Banking Committees when the first report on monetary policy was required. So I agree with the Chairman that there is zero information here. There is a lot of confusion. To be perfectly blunt about it, if there were some way to get rid of giving our forecast in the Monetary Policy Report, I would even favor that.

MR. FERGUSON. President Broaddus.

MR. BROADDUS. I think Ned's comment is a good one. I would like to find a way to get rid of that obligation as well. If there were some possibility of communicating the staff forecast—or whatever kind of consistent forecast we could possibly develop—and talk about how that outlook deviates from our ultimate objective, that's what I think the public and the market need to know. None of these alternatives to our current forecasting procedure would come anywhere near that. So I wouldn't want to go in this direction. Again, I think we ought to consider whether there's some way we can stop doing these Committee member forecasts.

MR. FERGUSON. Governor Bernanke.

MR. BERNANKE. Thank you, Governor Ferguson. Basically I'm just going to make a few suggestions for marginal changes in our current practice that might be useful. But then I want be the devil's advocate at the end of my remarks. First, I think we should substitute or add the core PCE because that probably is, after all, the measure more relevant to policy. Second, I

think it would be useful to add six months to the January forecast so that it has the same time horizon as the July forecast. That would not be changing anything substantive. Third, to address an issue that the Chairman raised, I think we should revise our forecasts as close to the release date as possible so that they are not dated or stale when they come out. And finally, I do have a thought on the standard errors. Concerns have been raised in earlier discussions of the projections that they might be considered objectives or goals, for example, rather than forecasts or that, by making a forecast, we risk our credibility in some way. Obviously, we can put in standard errors to make it clear that they are forecasts and are subject to error and so on. One simple way to put in standard errors would be to ask each forecaster to put a 25-75 bound around their estimates—the 25th percentile and the 75th percentile. Then we could take the average width of those bounds across the people whose forecasts are included in the central tendency forecast. That would give an estimate of the average uncertainty among the forecasts of members who are making forecasts. There are ways, I think, to add that. I just wanted to raise that as something to be considered.

Let me be the devil's advocate for just a minute, although I'm not proposing any changes. Statements have been made that these forecasts have no meaning and that they don't guide our policy in any way. I think that's an empirical question, and most of the empirical evidence that exists goes exactly against that. Work that has done at the St. Louis Fed suggests that FOMC forecasts are better forecasts of inflation than the Blue Chip forecasts, for example, over long periods of time.

CHAIRMAN GREENSPAN. So far!

MR. BERNANKE. So far, and that's all we can evaluate the forecasts on. There's also evidence that suggests that the Taylor rule based on FOMC forecasts is a better descriptor of

Federal Reserve behavior than other naïve type of Taylor rules. So I think it's an empirical question whether or not they're useful. Again, I'm not suggesting a major change in the way we use them, but I would ask us to leave open the issue of what information they contain.

MR. FERGUSON. President Minehan.

MS. MINEHAN. Thank you, Roger. I think the question of whether or not we should release forecasts is intriguing. But on balance I come to the view that we should not for many of the reasons others have talked about. I also think we ought to be clear as to what we're talking about because it seems to me that two different proposals have been made here. One has to do with the staff forecast, which is incredibly deep and intensive and is produced through the efforts of a number of people here at the Board. It is extremely helpful in its Greenbook formulation in terms of providing a base and a framework for us to think about the outlook.

I view that forecast differently from the numbers that I provide for purposes of the Monetary Policy Reports. The four or five people we have working on our forecast in Boston are very good economists, but they can't substitute for the depth and breadth and experience of the staff at the Board. Let's say I had to produce a forecast for every meeting, or even quarterly, similar to what we do for the January and July meetings—based on the “appropriate monetary policy” assumption, which would be different from everybody else's assumption, I suppose. I'd have to add a lot of people to my forecasting staff to be sure it was a forecast that I could defend or be proud of. There would be a continuing issue about the quality of the forecast I was releasing. Now, if mine got merged with a number of other forecasts and the public saw a central tendency and didn't see highs and lows, maybe that would be okay. But an accumulation of forecasts isn't necessarily better just because it's an accumulation.

I think over time, because numbers are precise and it's easier to pin people down on numbers, there would be an enormous amount of pressure to discover who was on either side of the distribution around these projections. It's conceivable that we could get ourselves into a situation where we release the forecast, it becomes known who has forecast what, and we might get ourselves dug into positions coming into a meeting. What really worries me is that, in all of this communication effort, we could get ourselves into a situation—and I think it's more probable with numerical forecasts because they are specific and can be tracked—where people come into a Committee meeting with a hardened policy position. People might be unwilling to listen to one another or to change their views because they have staked out a position associated with a number that is well known to the outside world. That could make it hard to come to a consensus within the Committee. For me this proposal raises that possibility more than the other proposals do. I think over time that would tend to wreak havoc on the way we operate.

MR. FERGUSON. President Parry.

MR. PARRY. Thank you. I assume that we'll continue with the MPR forecast, so I would suggest only minor changes much along the lines of those mentioned by Governor Bernanke. I think going to the core PCE measure makes a lot of sense because that's in fact what we focus on. And I'd probably favor a slight change in terms of the duration of the forecast. I'd take the January forecast out two years so that both forecasts made in a single year cover the same time period. I think that would be useful to the public.

MR. FERGUSON. President McTeer.

MR. MCTEER. Back when Mike Prell was in charge of the staff's forecast, the way I did mine was to subtract a percentage point from inflation and add it to real growth. [Laughter]

MR. FERGUSON. The McTeer rule!

MR. MCTEER. My practice now is to get very, very close to the staff forecast. But putting standard errors around my forecast would be, as they say in Texas, like putting lipstick on a hog! [Laughter]

MR. FERGUSON. President Guynn.

MR. GUYNN. Do I have to follow that? Could I ask for a bye and have you come back to me? I'm going to risk a bloody nose. I think the Chairman has already popped my balloon before I tried to blow it up! I've actually been laboring under the apparently false impression that we are in fact in the forecasting business. I've assumed that we make policy decisions based on both our collective and individual forecasts. We spend a lot of time not only studying the staff's forecast but looking at outside forecasts and doing some of our own. My staff tells me that there's a not insignificant body of research that says there is in fact some value in putting together a number of forecasts that are done on a different set of assumptions.

I guess I was dreaming—it may be the equivalent of the nineteen-person communiqué that the Chairman says just can't be done—that twice a year we would take a look out twelve to eighteen months and try to inform the public about what we see. I have the sense not so much in the forecast but in the semiannual statements that we have an opportunity as a Committee to let the public know our view of the outlook and how they might expect policy to respond to developments that might unfold. I know we respond to low probability events, but I hate to think that our policy from meeting to meeting is driven without the benefit of a longer-term forecast obviously adjusted for short-term events as they unfold. That troubles me a lot.

So I had this dream that we could provide a really thoughtful semiannual statement from this Committee—whether it's done before the Chairman's testimony or after the testimony—and offer that as our forward-looking view of the broader economy. If we did that and talked about

developments that we believed would be important in the period ahead, I thought we might be able to get away from the shorter-term statements that react to the recent data. I'm troubled, for example, by the current Bluebook—that we're going to struggle tomorrow with how to re-characterize the labor markets because last time we said they were modestly improving and now it appears that they may or may not be. I just wish that we could get ourselves and others thinking a little more about the longer term, obviously tempered as we go along by unfolding developments. That was my balloon that got popped, and I guess my nose is bloodied. But I wanted to take a crack at it.

MR. FERGUSON. Your head is unbowed! President Pianalto.

MS. PIANALTO. I concur with the Chairman. I don't think there is anything to be gained by an enhanced role for FOMC member projections. I, like others, am not in the business of forecasting. My staff does not prepare projections. I rely on the Greenbook projections as a starting point. So I'm not in favor of expanding the role of the FOMC projections.

MR. FERGUSON. Governor Bies.

MS. BIES. Thank you, Governor Ferguson. I support the Chairman in the sense that I really don't want to do any more forecasting. In fact, I would rather make all of our twice-a-year forecasts rolling ones and revise them for four quarters ahead only. I'd prefer not to go past a one-year horizon because I tend not to have much wisdom about the outlook beyond that.

But another point—and I'm going back to the idea of focusing on risk rather than the forecast—is that the minutes issue is relevant here. I think releasing the minutes earlier is important because it's the one place that conveys the discussions we have around the table about mitigating the risks of the different forecasts we have. Over the past year, for example, while we didn't forecast deflation, we certainly had quite a bit of discussion about the vulnerability of the

forecast in that regard. At least I personally was struck by the fact that it wasn't out of the realm of probability that we could be faced with such severe issues. And I think our views about those risks come out more in the minutes than in any forecast we could put together. I feel that we do a better job describing the outlook and our concerns in the minutes than in our forecasts. So I'd emphasize the minutes rather than the projections for that reason.

MR. FERGUSON. President Poole.

MR. POOLE. I would make two changes and two changes only. One would be to substitute the core PCE for the total. I emphasize substitute. If we do both, we have an implicit energy price forecast in there, and I don't think that's useful. Second, I think we ought to be able to survey the Committee members for any changes in their forecasts a week or two before the testimony, or whatever is practical in terms of the schedule for doing it. And maybe we could put a footnote in the MPR that these are the Committee's forecasts as of whatever the date is. Those are the only changes I would make.

MR. FERGUSON. Governor Kohn.

MR. KOHN. I wouldn't elevate the forecast either for all the reasons people have noted, and I certainly wouldn't want to do psychological damage to the Chairman! I'm not quite as negative on them, I think, as Governor Gramlich and Chairman Greenspan. I do think the forecasts give a sense of where the central tendencies of the Committee's views lie. You're right, Chairman Greenspan, that most of what we do in the policymaking process has to do with the risks around those central tendencies, but I think it's helpful for the public to get at least some sense of where the central tendencies are. And along the lines of the issues that Governor Bernanke raised, they do actually contribute a bit of understanding as to how we moved on

average over time, though maybe not at particular points in time. But they have all the problems everybody has noted, and I wouldn't elevate their role.

I would like to address the issue of the staff forecast, however. Maybe it's because I used to be sitting on the other side of the table, but I really think that releasing the staff forecast would be a terrible idea. What we get from Dave, Karen, and Vincent is their best judgment about what is going to happen and what the most likely course for the economy is. Any attempt to release that forecast would tend to move them, even if only subconsciously, toward hedging that, given worries about the market reaction or whatever. So I believe that would be a very, very bad way to go. I don't think it would serve the Committee well.

In terms of minor tinkering with the forecast and what we release, to me core PCE is worth thinking about. Unlike President Poole, I probably would add it rather than substitute it. I agree that would result in an implicit food and energy price projection being there, but so be it. Total inflation is not irrelevant. What is happening to total inflation could very well shape expectations about future inflation, and it probably does. If we believe those expectations are important, I think we ought to talk about the total as well as the core inflation, though I agree that the latter is more relevant to the underlying pressures on the economy so I would add it. And I would give serious consideration to adding six months or a year, particularly to the January forecast horizon. Maybe we can return to those issues before we come back in July.

MR. FERGUSON. President Moskow.

MR. MOSKOW. I agree, Mr. Chairman, with the way you characterized this. I don't think the forecasts serve a useful purpose here. Also, though people have very good ideas for minor tinkering that will improve them—the core PCE, maybe lengthening the time period, and things of that sort—quite frankly, I think there's a danger in doing that. If we do that, we draw

more attention to these forecasts. And we give the impression that we're putting more emphasis on them, and to that extent I think we elevate them. That would be counterproductive. I'd leave it the way it is and not make any changes whatsoever. Discussing core inflation is obviously important, and you do that in your testimony, which I think is a very appropriate place to do it. But I would not change the way we present the forecasts one bit.

MR. FERGUSON. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. I have only the weakest of convictions on this issue. I think Mike Moskow's point is a very interesting one: If there are sensible changes that we could all embrace in how we present these forecasts but we're all against or uncomfortable with elevating their importance, it may be a mistake to contemplate sensible changes. I have a somewhat more open mind to the merits of thinking about some sensible changes even if we're going to retain the current relatively limited role of the forecasts in our thinking. So I'd say those minor adjustments are worth thinking through a bit more. But I see no great benefit in substantially raising the profile or the contribution of the forecasts—nor the time we invest in them—as a guide to policy going forward. It may not be worth going through this, but I don't think there's a case for increasing their frequency, and I don't know how I come out on the merits of separating them from the testimony itself. So I offer those weak convictions.

MR. FERGUSON. Governor Olson.

MR. OLSON. Just as a reminder, when we discussed the first two issues—risk assessment and the release of the minutes—we were talking about communicating FOMC decisions, and we have a very important responsibility in that regard. But I agree that we are not in the business of making forecasts. Also, I would remind people of the purpose behind the legislation calling for semiannual reports on monetary policy. I feel like an old man because I

had left the congressional staff before the Humphrey–Hawkins Act was passed, but I had been there until two years before that, and I remember the mindset. It was a disclosure issue. It was not viewed as a tool of monetary policy or economic policy; it was a disclosure issue. To underscore that fact, let me refer you to the last line on page 13 of Benson Durham’s memo—you don’t need to look at it—where it talks about the House Committee’s response to the second MPR in July 1979. “We feel this step constitutes a definite improvement in monetary policy oversight.” The issue was not monetary policy implementation but monetary policy oversight. To put it in simple terms, the Congress was asking, “What does the FOMC know that we don’t know?” This was put into the law at a time when we did not have anywhere near the level of disclosure or transparency that we do now. As you probably remember, the Humphrey–Hawkins Act did sunset in 2000; at that time I was back on Capitol Hill with the Senate. What happened was that there was no particular sentiment for continuing the specific components of the Humphrey–Hawkins legislation, but there was great interest in making sure that the Chairman came before the House and Senate Finance and Banking Committees at least twice a year to discuss monetary policy. So the wording of the legislation that followed, starting in 2000, was designed to ensure that that would happen. With that in mind, I don’t see any reason to change anything that we do with the reporting because its purpose is so different from what it had been. The Chairman may have a different recollection of what transpired in the successor to the Humphrey–Hawkins Act, but that’s my recollection.

MR. FERGUSON. Let me give you my perspective on this issue. I am in the camp that says we have a range of skills with respect to forecasting, but my observation over the years that I’ve been here is that we are mainly consumers of a range of forecasts. We are looking at forecasts to see whether we agree or disagree and to assess what the risks are, and so forth. I,

like the Chairman, have observed a number of meetings where the forecasts and the commentary seemed not to be closely intertwined. Also, just to pick up on Mark Olson's point about what we know that others don't know, I don't think this Committee has ever forecast a recession. I can't quite imagine how it would work. If we're going to be very transparent and forward-looking, in the sense of what do we know that they don't know, would we say that the FOMC's central tendency forecast was for a recession? That never happens. It never would happen. We're not very good at foreseeing a recession, and if we did, we'd conduct policy to try to avoid it. If you think about it, I suspect we'd always forecast something that looked pretty much like trend, which I frankly think we do anyway. It would certainly undercut any sense of credibility around these forecasts.

On some of these smaller changes: the core PCE, sure; add six months, possibly; survey for revisions, I'm not sure, partially because that gets to Michael Moskow's point that doing that starts to convey this sense of great real time validity about the Committee forecast. So I'm not really sure where I stand on those.

Let me now step out and try to summarize what I think I heard. There were no votes, as far as I could tell, for substantially changing the way we think about or use the forecasts. There was a range of views expressed on some of these small fixes—the core PCE, adding a few months, et cetera—and some people did not address those issues at all. I would propose, since we don't have to decide any of this until July, that I or the staff send around to everyone a list of two or three options for a simple yes or no vote. I'm not sure it requires a lot more discussion. We can then report back to you on how the vote came out on core PCE—do we add it, do we use it as a substitute—adding six months or a year to the forecast horizon and revising our forecasts closer to the time of the Chairman's testimony. I think those were the three issues that came up.

We'll see if there's an obvious yes or no, up or down, and then discuss all this when we get closer to the next forecast round, but we have a couple of meetings before then. Governor Gramlich.

MR. GRAMLICH. Let me just mention one issue that we might also put on your list. I think all of us would care very much about the Chairman's psychological well being. What is the legal requirement in terms of whether these forecasts have to go in the testimony or just in the report itself?

MR. KOHN. In the past it has been in the report and not in the testimony.

MR. REINHART. I think we have already crossed that bridge.

MR. FERGUSON. Yes, just in the report. There have been times when the Chairman doesn't refer to them.

MR. REINHART. There have been times when they are not even included in the testimony. In the last ten years the Chairman has almost never referred to them in the reading draft of the testimony, but there have been times when they haven't even been in the text of the formal testimony submitted. They are always in the report.

MR. GRAMLICH. So do you get asked about them, then?

CHAIRMAN GREENSPAN. If they are in the report, no. There were occasions in the past when we were clearly in a recession and the forecast was for no recession. And the issue that Governor Ferguson raised is a really important one in the sense that these are not best-estimate forecasts. We can basically come out in, say, the June meeting with a 50 basis cut in the funds rate and in the report on monetary policy show the economy going up. There's also a question here of whether these are goals or objective forecasts. But the major problem is that they are not anything in particular because we haven't a clue what the underlying assumptions

are. To have a bunch of forecasts and not know the underlying assumptions and then add them altogether is a statistical monstrosity. I don't what the mathematical characteristics are.

MR. GRAMLICH. I don't know if anybody has ever thought of this, but could there be in a special appendix to the report some verbiage about some of these caveats?

CHAIRMAN GREENSPAN. We don't know what the caveats are! Then the whole question is why we are doing it.

MR. GRAMLICH. As you know, I would prefer not to.

MR. REINHART. In the last report we significantly trimmed back the discussion in the testimony. Basically we just presented the table, did the table reading, and did not offer an interpretation.

CHAIRMAN GREENSPAN. I don't think we got a negative response to that as far as I'm aware.

MR. REINHART. I would say that there are basically two things that go wrong with regard to the testimony process. One is that occasionally there will be questions such as: Six months ago you were forecasting this, and it didn't happen. What went wrong?

CHAIRMAN GREENSPAN. It's only that. It's never "you were right!"

MR. REINHART. The second is that the forecasts are numbers, and it's easy for reporters to characterize them. So sometimes the newspaper articles that come out after the testimony are not what we would have expected because the reporters latch on only to the numbers.

MR. POOLE. It may be a statistical monstrosity, but it's much better to leave it there than to have the Congress demand the staff forecast. So we should just leave it alone.

MR. FERGUSON. Well, that's why we have it. That's how we got into it.

SPEAKER(?). It's a legal requirement.

CHAIRMAN GREENSPAN. That's where it came from—to protect the staff. That's the reason that Don Kohn was mentioning that.

MR. POOLE. And that's still very important, so let's leave it.

MR. MCTEER. The sunseting didn't affect the legality?

MR. MATTINGLY. It's not required.

MR. KOHN. No, it wasn't even required by law before. By law the only thing that was required was monetary aggregate targets. And this was appended to those targets partly because the Committee was supposed to say how the monetary aggregate targets lined up with the Administration's economic forecast. So this was a way of working around that as well. The only thing in the law right now is that we are supposed to give some sense of likely future developments.

MR. OLSON. I think the wording is a discussion of "prospects."

MR. KOHN. Right, "prospects."

MR. OLSON. The memo mentions the question of whether or not an MPR without a forecast would comply with the law. That's an open question.

MR. REINHART. It was an open question because the Committee had established a precedent and they interpreted "prospects" to mean these forecast numbers. But the issue isn't whether you will be sued; it's whether you'll get a worse outcome when the Congress pushes back.

MR. FERGUSON. Let me close this because we want to get on to something else. It strikes me that the sense of the group is retaining the status quo in terms of this last question. We have a long history of doing forecasts. I'm not sure that we'd be better served by not doing

them. There may be some room to do some tinkering on the edges, and the staff will do a survey on the three or four or five ideas that have come up here. I think that's it. I thank you all for a productive discussion. I got through a number of semi-brilliant conclusions! [Laughter]

MR. MCTEER. Somewhat brilliant.

CHAIRMAN GREENSPAN. Thanks to the chairman of our working group who obviously came out exactly where he wanted! [Laughter]

MR. FERGUSON. No comment.

CHAIRMAN GREENSPAN. We have time to hear Dino Kos. Dino.

MR. KOS.³ Thank you, Mr. Chairman. In the interest of getting everybody out of here quickly, I'll read even faster than usual today. If the marketplace is designed to frustrate the majority by moving against conventional wisdom and—more importantly—the positions of most market participants, the fixed-income market during this period can be labeled as exhibit A. Although most dealers and investors waited and were positioned for interest rates to rise, their expectations were frustrated. Foreign exchange traders, on the other hand, experienced the opposite sensation. They expected the dollar to depreciate further, and their hopes were fulfilled. At times it seemed that the frustration of one group and the gratification of the other were linked by the intervention of foreign central banks and their subsequent investment of dollar accumulations, but I'll say more on that later.

The top panel on page 1 graphs the three-month cash rate in the solid red line and the three-month deposit rate three, six, and nine months forward in the dashed red lines. Forward rates fluctuated in a band pushed up by mostly strong data, positive corporate earnings, and expectations that GDP growth would moderate to a healthy 4 to 5 percent rate in Q4 and continue into 2004. However, forward rates were pushed down by two factors. First, two consecutive weak employment reports offset other positive data. Second, comments by a number of Committee members that rates would not rise anytime soon led to short-covering rallies and brought forward rates back down. The same set of factors affected government bond yields. In their hearts, market participants wanted yields to go up. Forecasts for GDP suggested growth above 4 percent and maybe even above 5 percent, and the market increasingly talked about the timing of the first policy tightening. And corporate results in many cases surprised to the upside, suggesting a turn in the profit cycle. Also, there was the rise in commodity prices and the fall of the dollar, both of which might have inflationary implications.

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

So why didn't yields rise? Among the reasons offered were the following: First, the comments by Committee members emphasizing that short rates would stay low. Second, January's weak employment report, which came as a surprise to many. Third, the already rather steep yield curve; the 3 percent differential between the funds rate and the yield on the ten-year bond is historically wide, and further steepening probably would bring in new investors to take advantage of the carry. Fourth, real yields as measured by a simple difference between, say, the nominal ten-year note and current inflation measures are within historical norms and don't necessarily suggest that bonds are overvalued. Finally, and this is a subject that has received substantial airplay recently, Asian central banks are recycling the proceeds of interventions aimed at keeping their currencies from appreciating and are buying in large volume in the U.S. markets. While none of these explanations by themselves is convincing, taken together they may begin to help explain the price action.

With Treasury yields trapped in a range and corporate credit quality improving, spreads continued to narrow across most credit categories. The two bottom panels on page 1 show the narrowing of investment-grade spreads on the left and of high-yield and emerging-market spreads on the right. The latter have narrowed despite ongoing warnings from emerging-market strategists that spreads have overshot to the downside. I should mention that volatilities for most asset markets are also on the low side. The VIX equity volatility index is below 15 percent for the first time since 1996.

As shown on the top of page 2, the dollar continued to depreciate against most floating currencies, as concerns about the cost of financing the current account deficit continued to occupy the market. Early in January, Governor Bernanke's comments about both the dollar and the outlook for interest rates emboldened dollar shorts. The euro hit a lifetime high of \$1.29 early on January 12 before President Trichet of the ECB—in his press conference after the G-10 governors' meeting at the BIS—protested against what he called the “brutal” moves of the exchange market. The dollar recovered after those comments, but this morning the euro was rising again to above \$1.26. One of the reasons given for the dollar's strength during the late 1990s was that asset returns in the United States were higher than those available elsewhere. That is no longer the case when taking into account moves of both asset prices and foreign exchange rates. The middle panel depicts equity market returns—expressed in local currency terms in the gray bars—for the Nasdaq, the S&P 500, the DJ Euro Stoxx, and the Nikkei since January 1, 2003. All did well on that basis. However, the returns of a euro- or yen-based investor were trimmed substantially, when exchange rate fluctuations are taken into account. So while the S&P has appreciated about 30 percent in dollar terms over that span, the appreciation for a euro-based investor is about one-third of that. Similarly a U.S. dollar-based investor would have done better investing overseas, given the currency kicker. The Nasdaq was something of an exception in that its returns were high regardless of the currency base, though that was after three difficult preceding years. The other factor that has worked against the dollar in most cases—with the exception of Japan—is interest rate differentials. Short-term differentials shown in the bottom left panel and long-term

differentials shown on the right both favor other currencies, which have had the advantage of offering higher yields and appreciating currencies. And those foreign inflows that have moved into U.S. fixed-income paper are more likely to be hedged by selling dollars. That may be another factor that helps explain the seeming paradox between strong asset markets and a depreciating currency.

The focus on central bank activity has been most acute with respect to the yen and renminbi exchange rates, though we have less information about the latter. The top panel of page 3 graphs the dollar–yen exchange rate since August. As the yen has appreciated, the pace of Japanese intervention has accelerated, with the notable exception of the pause in operations at the time of the Dubai G-7 meeting in September. During the intermeeting period the Japanese purchased another \$80 billion. The middle panel updates a graph I showed a few meetings ago. During calendar 2003, Japan acquired a bit more than \$180 billion—triple its previous high in 1999. In just the first four weeks of the year they are on pace to far exceed last year’s Herculean effort. The bottom left panel graphs cumulative purchases of Treasury notes and bills for 2003 through November (the last available data point) from the Treasury’s TIC data. In general, this confirms anecdotal commentary that official capital flows are making up an increasing portion of the financing of our deficits. The bottom right panel graphs increases in the New York Fed’s custodial holdings of Treasuries in green on the left scale and of agencies in blue on the right scale—both of which continue to grow. The scale of these purchases must have some impact on the yield curve, though the magnitude is difficult to estimate, especially given other factors that are at play.

Although the focus of global markets was mostly on the dollar and U.S. markets, the European and Japanese markets had their own excitement at times. The top panel on page 4 depicts the three-month euro deposit rate in the solid green line, and the three-month deposit rate three, six, and nine months forward in the dashed green lines. The sine curve pattern observed in the forward rates mirrors to some degree the pattern of U.S. rates. The downward trend over the past six weeks is also due in part to the strength of the euro. As the euro appreciated, the market first priced out a possible tightening in the middle of next year, and now market participants are increasingly talking about a possible ease to counteract the currency’s strength. As can be seen in the middle panel, the Japanese yield curve actually has not changed much since the last meeting. But it is up substantially since last year at this time and is much higher than it was last June when the ten-year JGB yield bottomed out at about 42 basis points. While some credit goes to technical factors, most ascribe the rise in yields to an improving economy and a more activist approach by the authorities. Equity markets have risen in line with global shares. The bottom panel graphs the broad Topix index along with the bank and electronics sub-indexes. The electronics sector is one of the main exporting groups, and the interesting point here is how close its sub-index tracks the overall index despite the strength of the yen. Whatever the restraining effect of the appreciating yen, it is being offset—in the market’s eyes at least—by other factors such as increased activity both in Japan and elsewhere. Japanese banks had a terrible spring, as investors worried about the FSA’s

approach to the financial sector and prices of bank shares slumped. But with the bailout of Resona Bank, the improving economic outlook, and the write-offs taken by most of the major banks since then, bank equity shares have risen sharply. They have handily outperformed the index, although yesterday they did sell off after it became known that one major bank was being inspected for possibly dressing up its loan ratings.

Mr. Chairman, in the fed funds market the year-end came and went calmly with no unusual pressures to report. There were no foreign operations. I will need a vote to approve domestic operations.

CHAIRMAN GREENSPAN. Does the failure of banks to window-dress have anything to do with the Freddie Mac fiasco or any of the other related manipulations by banks?

MR. KOS. I don't know the details, but there was apparently some discrepancy between the way the loans were classified and the way they were actually performing. But that's something I understand the FSA will be looking into. More details to come, I'm sure.

CHAIRMAN GREENSPAN. Questions for Dino? If not, Governor Ferguson.

MR. FERGUSON. I move approval of the domestic operations.

CHAIRMAN GREENSPAN. Thank you. Without objection, they are approved. We are adjourned until 9:00 a.m. tomorrow.

[Meeting recessed]

January 28—Morning Session

CHAIRMAN GREENSPAN. Good morning, everyone. David, do you want to go over this material that was just distributed?

MR. STOCKTON. I think Larry was planning on talking about it.

MR. SLIFMAN.⁴ Thank you, Mr. Chairman. We have distributed to you an extra sheet that has the latest information from this morning's release on the orders and shipments data. The lines that we typically like to look at are the orders excluding aircraft, shown part way down the table, and the "all other" category which encompasses roughly two-thirds of the total. The orders numbers, particularly for the "all other" category, look pretty good to us and would imply perhaps a small upward revision to the fourth quarter. The shipments numbers, shown a little further down on the page, also indicate some positives in the two categories—ex aircraft and "all other"—but it turns out that there were some downward revisions to the preceding months. So on net, we actually would wind up cutting our Q4 number by just a small amount. On balance, we think the changes in the two series would be about offsetting, and in our opinion the outlook for business spending remains quite strong.

CHAIRMAN GREENSPAN. The first quarter is going to have an upward revision?

MR. SLIFMAN. We'll have an upward revision to Q1 and probably a downward revision to Q4.

CHAIRMAN GREENSPAN. Let me ask something further. A problem in this survey is the very peculiar movement of unfilled orders for communications equipment. You may recall—I'm not sure what month it was but probably October—that there was an extraordinary rise in unfilled orders, and it looked idiosyncratic. I gather that when we checked with the

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

Bureau of the Census they indicated that there were some flaky numbers for unfilled orders. Some communications equipment manufacturers didn't think those numbers were real, and they now apparently are being written off. If you remember, new orders are calculated as shipments plus the increase in unfilled orders, so we are getting a very sharp decline in communications equipment, and that is holding down the figures for nondefense capital goods excluding aircraft. But if you take out the communications equipment peculiarity, the report is a lot better than it appears on the surface, as Larry just indicated. I would say it is a wash.

MR. SLIFMAN. Well, the one other thing that I would note, as we pointed out in the Greenbook as well, is that the level of new orders has been running above the level of shipments, implying an increase in unfilled orders for some time now for the "all other" category. So, again, we take that to be a favorable sign. Shall we get started with the chart show now?

CHAIRMAN GREENSPAN. Please.

MR. SLIFMAN.⁵ For the chart show, Sandy Struckmeyer, Steve Kamin, and I will be referring to the packet of materials that was distributed to you. While putting together the Greenbook, two of the questions we asked ourselves were, first, "Where is the economy now?" and, second, "What are the forces that should sustain above-potential growth over the next two years?"

With regard to what is sometimes called "forecasting the present," your first exhibit shows a variety of indicators that have informed our judgments. The top left panel plots average monthly changes in private payrolls. Like most observers, we were disappointed by the payroll employment report for December. However, that reading came on the heels of more-favorable reports for the preceding two months. Averaging through the monthly ups and downs, as I've done in the bars on your chart, you can see that, after a protracted period of job losses, employment has been on an uptrend since midyear, albeit a weaker one than is typical for this stage of the business cycle.

In contrast to the payroll numbers, most indicators of final demand have been quite favorable. Sales of autos and light trucks (the top right panel) and other consumer goods (the middle left panel) point to continued strength of household demand, while the orders and shipments figures (the middle right panel), which here are plotted only through November, tell a similar story for business demand. And as I

⁵ The materials used by Messrs. Slifman, Struckmeyer, and Kamin are appended to this transcript (appendix 5).

mentioned earlier, this morning's orders and shipments release provided further confirmation of an ongoing pickup in business spending.

Thus, in putting together our near-term GDP forecast, we once again were faced with a tension between lackluster payroll employment numbers and pretty stellar incoming data for final sales and production. And, once again, we've resolved that tension by writing down sizable increases in productivity (the bottom left panel). Sandy will be discussing productivity in greater detail later. The table at the bottom right adds it all up. We now estimate that real GDP grew at a 4.8 percent annual rate in the fourth quarter of 2003 and will expand at a 5 percent pace in the current quarter. The bulk of the increase in GDP over this two-quarter period comes from robust gains in final sales; but with stock-sales ratios so low, inventory investment is expected to make a noticeable contribution as well. Let me note that this exhibit reflects the figures that were in the Greenbook—before we got the data on shipments and orders this morning. So perhaps we might take a tenth or two off Q4 and add a tenth or two to Q1.

Turning to the outlook for the next two years, the subject of exhibit 2, the question is, "Will the current rapid growth be sustained and why?" As you can see from the top panel, we think that economic growth will be sustained at rates faster than potential through the end of 2005. The remaining panels highlight some of the key contributing forces. Fiscal policy has been quite expansionary in recent years, and as can be seen in the middle left panel, we expect it to provide additional impetus to growth through the end of this year. However, on our assumptions, fiscal policy swings to slight restraint in 2005 as the partial-expensing provision expires and the growth of defense spending slows. Monetary policy also has been quite supportive of growth over the past few years. And with the funds rates projected to remain relatively low over the forecast period, it will continue to be so. Another factor with favorable implications for growth is the ongoing strength of productivity gains, which should influence household perceptions of permanent income and business perceptions of profitability. Given the surge of earnings lately, firms have been able to finance their desired spending while keeping a tight lid on their borrowing. Indeed, as shown in the bottom left panel, debt ratios have fallen sharply in recent years and are now either at or near the lowest levels in the past two decades. With the marked improvement in business financial conditions, risk spreads—as Dino noted yesterday—have dropped dramatically on both investment-grade and junk bonds. Returning to the top right panel, the stock market is assumed to rise at a 6¼ percent annual rate over the projection period—maintaining risk-adjusted parity with the projected yield on long-term Treasury securities. In our forecast, we see the higher stock market as providing some support to household spending after several years in which it was a considerable drag.

Your next exhibit focuses in greater detail on the household sector. Personal income (the dark bars in the top left panel) is expected to rise smartly over the next two years, supported in part, as I mentioned earlier, by the strength of productivity. The strong income growth provides a considerable lift to consumption outlays (the

yellow bars). In addition, last year's tax cut continues to boost spending in 2004. The top right panel shows the implications of the PCE and income projections for the saving rate. As indicated by the thick line, the BEA currently estimates that the saving rate was only 2.3 percent in the third quarter of last year, and we think it fell another ½ percentage point in the fourth quarter. In our forecast, the saving rate climbs about a percentage point over the projection period.

One risk to the household sector forecast is that the saving rate might rise more than we have allowed for in the baseline. The bullets in the middle panel present our thinking on this issue. The first thing to note is that the BEA, in effect, shifted the goal posts in its most recent comprehensive revision, by taking the level of the saving rate down on average over the past decade about a percentage point. This suggested to us that we ought to revise down our thinking about what constitutes a “normal” or “target” saving rate by a like amount. Considerable econometric work suggested the same. That said, the current saving rate still is well below the level that many observers often think of as a more normal rate. It's important to keep in mind, however, that the target saving rate is a moving target. It varies over time as the fundamental determinants, such as the wealth–income ratio, the composition of income, and real interest rates, change. Indeed, we read the current settings of those fundamentals as pointing to a target saving rate for the next year or two in the neighborhood of 3 percent. In our projection, the saving rate rises to 2.8 percent by the fourth quarter of 2005, eliminating the bulk—but not all—of the gap between actual and target saving. We're not sure what accounts for the gap that we're seeing currently, but departures from our saving models of this magnitude are not unusual. Historically, disequilibria like this have been worked off fairly gradually, but a more sudden and complete adjustment, and a consequent drag on aggregate demand, certainly is a risk.

The forecast for housing starts is presented in the bottom left panel. The pace of homebuilding, fueled by low mortgage rates and robust income growth, is anticipated to remain strong over the projection period, edging down only a bit from the current elevated pace as mortgage rates drift up a bit. The bottom right panel shows our projection of house prices. In our forecast, house prices slow from the 7 to 8 percent gains posted in recent years, to about 2½ percent during 2005. The downtilt primarily reflects the current disparity between rapid house-price inflation and much smaller increases in the data for rents. The econometric evidence suggests that such a disparity typically is closed by house-price increases moving into alignment with rents. Of course, there is a wide band of uncertainty around this forecast, which imparts a wide band of uncertainty—both upside and downside—to movements in household net worth over the next two years, with consequent implications for household spending.

Turning to the business sector, exhibit 4, we expect real outlays for equipment and software—both the high-tech component and the “other” component—to rise rapidly this year, spurred in part by the temporary tax incentive. Indeed, the partial-expensing provision adds about 2½ percentage points to overall E&S growth this year

and subtracts close to 6 percentage points next year. The basic contour of the forecast is consistent with the information given recently to the Reserve Banks by businesses in their Districts. As shown in the middle left panel, slightly more than half of the respondents plan to boost their capital spending in 2004—the responses are appreciably more upbeat than those in June. Although the usual accelerator effects were the primary reason given for the improvement, a sizable fraction of respondents also pointed to replacement needs as an important consideration. Moreover, partial expensing finally appears to be on the radar screens of at least some firms. A quarter of the respondents also cited improved cash flow or balance sheet positions, reflecting no doubt strong profits and, presumably, the expected profitability of new investments. As shown to the right, in our forecast the profit share continues to rise through mid-2004 before drifting down as labor costs accelerate and competition puts pressure on margins. Nonetheless, even through the end of next year, profits are still elevated by historical standards.

An important element of our capital spending forecast is strong demand for computers. In part, our forecast for computer spending has been informed by the projections of industry analysts for unit sales of PCs—both so-called desktop boxes (which typically sit on the floor) and laptops (which often sit on desks). [Laughter] The bottom left panel shows one such forecast from a leading consulting group. As you can see, unit sales are expected to rise sharply throughout the projection period, driven by the need to replace machines that have become physically or technologically obsolete. After adding in the effects of quality change, these unit sales translate into real spending increases on the order of 40 percent annually over the next two years—roughly in line with the increases posted during the second half of the 1990s. One concern that has been raised in many circles is the implication for the domestic economy of outsourcing computer production—that is, whether today's boxes contain considerably less domestic content than the boxes sold a few years ago. The bottom right panel addresses this question. It uses cost shares to measure the domestic content of PCs sold in the United States. Most of the domestic value-added in a PC is for the micro-processing unit—the Pentium or similar chip that lies at the heart of our PCs. This is shown by the black shaded portion of the bars; smaller contributions come from the production of specialized chips that provide basic logic or act like traffic managers inside your PC and, to a lesser extent, from integration and final shipment. The bulk of the foreign value-added is for such things as printed circuit boards, storage devices, and peripherals. The point is that the United States is still the world leader in designing leading-edge chips (a very high value-added activity) and fabricating them (also a high value-added activity). As a result, the domestic content of PCs has changed relatively little over the past few years. Accordingly, the sharp rise in PC sales that we are forecasting should translate into domestic production at about the same rate as in recent years. Steve will now turn the discussion from domestic content to foreign content.

MR. KAMIN. Your first international exhibit presents an overview of developments in selected international financial markets. As can be seen in the top left panel, a key development over the past half-year has been the renewed slide in the

foreign exchange value of the dollar. The decline in the broad dollar (the black line) was due entirely to depreciation against the major currencies (the red line). The dollar fell to record lows against the euro (the black line on the right) but also fell substantially against the pound (the magenta line) and the yen (the blue line) as well as all the other major currencies. In contrast, since last summer the dollar has held its ground against the currencies of our other important trading partners, depicted by the blue line in the left panel. The dollar appreciated against the Mexican peso, while developing Asian governments generally continued to resist appreciation of the currencies, as indicated by the stability of the Korean won.

The other key development in international financial markets since your last chart show has been the response to expectations of rising economic growth. As indicated in your middle left panel, movements in long-term bond yields in major foreign economies have mirrored the rise in U.S. yields since last summer, as well as their recent slight decline. Stock prices, on the right, extended their second-quarter rebound through the end of the year, both in industrial countries and in emerging markets. As shown in the bottom left panel, another indicator of improving confidence, yield spreads for both emerging-market countries and industrial-country corporate borrowers, continued to move down last year. With EMBI+ spreads now at their lowest level since before the Russia crisis in 1998, some concerns have been raised that borrowing conditions have become too easy, raising the possibility of future financial crises. However, as shown on the right, gross capital flows to emerging-market countries remain well below their 1997 peaks, even as cross-border debt issuance by industrial economies has continued to grow.

Your next exhibit describes the recent and projected recovery of global economic growth. As indicated in the first row of the top left panel, our trade-weighted aggregate of foreign real GDP, after languishing in the first half of 2003, is estimated to have accelerated to a pace of nearly 4 percent in the second half. With monetary and fiscal conditions in most economies remaining accommodative, the global high-tech sector on the rebound, and U.S. growth projected to remain strong, we see foreign real GDP growth remaining brisk through 2004 before slowing a bit next year. This growth should gradually reduce the extent of economic slack abroad. It should also support continued expansion of international trade; as shown in the top right panel, the rebound in world exports over the past two years has mirrored the turnaround in global industrial production.

As indicated in the middle left panel, the acceleration in economic activity has also contributed, along with the decline in the dollar and other developments, to rebounds in oil prices (the black line) and other commodity prices (the red line). Going forward, oil prices are projected to decline over the next two years, in line with quotes from futures markets, as increasing supplies of Iraqi and non-OPEC oil become available, while nonfuel commodity prices level off. With commodity prices stabilizing and excess capacity projected to diminish only gradually, inflation rates, shown on the right, are expected to continue moving down in Latin America and to remain subdued in the industrial countries and developing Asia.

Returning to the top left panel of your exhibit, the second row indicates that the foreign industrial countries are expected to share in the global economic rebound, but at a slower pace than the world economy as a whole. Industrial country growth is expected to register just under 3 percent this year and next, and the path of euro-area growth (line 3) is expected to be lower still. As shown by the red line in the bottom left panel, industrial production in the euro area has moved up since the middle of last year, while the rise in business sentiment indicators such as the German Ifo survey (the black line) point to further strengthening. Going forward, the euro-area economy will likely benefit from the rebound in global growth and from continued low interest rates; however, it faces headwinds in the form of an appreciating currency and some move toward fiscal restraint.

In Japan (line 4 in the top left panel) GDP growth is expected to slow a bit in the next two years from the 2½ percent pace registered in the second half of 2003, notwithstanding the additional quantitative monetary easing announced by the Bank of Japan last week. As shown in the bottom right panel, available indicators suggest the economy is unlikely to fall back into recession. Machinery orders have moved up on balance in recent months while unemployment is edging down. Still, unemployment rates remain high by historical standards and are likely to restrain future consumption. Moreover, much of Japan's growth in recent quarters has been due to buoyant exports to developing Asia; with growth in this region slated to slow from its brisk second-half rebound, and with the yen having strengthened recently, the stimulus from exports and export-related investment will likely diminish.

The outlook for the emerging-market economies is described in your next exhibit. As indicated in line 1 of the top left panel, real GDP growth for these countries rebounded at a 6.1 percent annual rate in the second half of last year and is projected to grow at still brisk rates over the next two years. The rebound in growth since last summer was due almost entirely to developing Asia (line 2), which grew at a blistering 11 percent pace in the second half after contracting slightly in the first half. This rebound in part reflected the recovery of retail sales, tourism, and confidence from the SARS epidemic. The rebound was also due to the continued recovery of the global high-tech sector; as shown in the top right panel, industrial production in many developing Asian countries has tracked the recovery in the global semiconductor industry. Finally, developing Asian growth has been boosted by buoyant domestic demand in China, including substantial state sector investment. As shown in the middle left panel, rising demand has helped to push consumer price inflation into positive territory—although much of the rise reflects higher food prices—and has also pushed down China's trade surplus a bit. As shown on the right, exports of developing Asian economies to China (the red line) have soared, even as exports to the United States and Europe have been much weaker. While much of the increased exports to China are being drawn in by higher domestic demand, many of these goods are being further processed and re-exported to third markets. This reorientation of the region's trade along more vertically integrated lines is evidenced in the bottom left panel, which shows that the recent growth of U.S. imports from Asia is accounted for exclusively by higher purchases from China.

In contrast to developing Asia, the recovery of growth in Latin America (line 5 in the top left panel) has been tentative. This is due in large part to lackluster performance in Mexico (line 6). As indicated in the bottom right panel, since mid-2003, Mexican exports (the blue line) have recovered in tandem with U.S. industrial production (the black line). However, Mexican industrial production (the red line) has only recently turned up. The earlier weakness in Mexican production likely reflected runoffs of inventories, and with U.S. demand growth expected to remain strong over the forecast period, we are projecting a rebound in Mexican growth going forward. Nevertheless, several factors, including the failure of Mexico's government to make progress on tax and energy-sector reforms, point to vulnerabilities in the economy's performance.

Your next exhibit addresses the outlook for the U.S. external sector. As indicated in the top left panel, both U.S. export growth (the blue bars) and import growth (the red bars) were quite weak in the first half of 2003 but picked up substantially in the second half. This pattern reflects the recovery of GDP growth, shown at the right, with U.S. growth (the red bars) and foreign GDP (the blue bars) both rebounding from their subdued first-half performance. Going forward, continued rapid GDP growth here and abroad is expected to keep both exports and imports expanding briskly. I should note that, while beef exports fall nearly to zero for most of this year as a consequence of import bans prompted by mad cow disease, this should have only a very small effect on aggregate export sales.

Because U.S. growth is projected to exceed foreign growth and because the responsiveness of U.S. imports to income is believed to exceed that of U.S. exports to foreign income, the growth of imports would be expected to exceed that of exports, all else being equal. However, lagged effects of the past depreciation of the dollar, shown in the middle left panel, as well as effects of mild projected future depreciation are expected to buoy exports and restrain imports going forward. In consequence, the growth of exports is projected to exceed that of imports in 2004 and 2005. Nevertheless, because imports are substantially greater than exports, imports rise in absolute amount by more than exports over the forecast period. This leads to a further widening of the current account deficit, shown as the black line in the middle right panel. Owing to growth in the U.S. economy, the deficit as a percent of GDP, shown as the red line, narrows slightly over the next two years.

Returning to the middle left panel, our forecast of a modest further depreciation of the dollar is based on the view that the widening U.S. current account deficit and the need to finance it will continue to weigh on the dollar. Nevertheless, the timing and magnitude of any future additional decline is obviously quite uncertain. The bottom panel of your exhibit breaks down the recent financing of the current account, shown on line 1. Notably, the share of the financing coming from official sources (line 2) has stepped up considerably over the past year, reaching about \$250 billion at an annual rate in the first two months of the fourth quarter. Conversely, net private capital flows (line 3) have moved down. Foreign purchases of U.S. securities (line 4) declined from \$418 billion at an annual rate in the first half of 2003 to a little over

\$300 billion in the first two months of the fourth quarter. Interpreting these data is complicated, however, as purchases in September and October were extremely weak, whereas they bounced back in November. Data on foreign direct investment in the United States (line 6) are available only through the third quarter of last year, but these inflows also show a decline from 2003:H1. Conversely, U.S. purchases of foreign securities (line 5) and U.S. direct investment abroad (line 7) appear to have held up well in the second half of last year. These data suggest that official purchases of dollars increasingly are substituting for private capital inflows in financing the U.S. current account deficit and, as such, may be preventing the dollar from moving down more rapidly than would otherwise be the case.

Your final exhibit explores some alternative scenarios for the dollar. As indicated by the black line in the top panel, the broad real dollar, though down considerably from its peak in early 2002, is still well above its trough in the 1990s. Particularly given the widening external deficit, a steeper decline in the dollar than our baseline projection is a distinct possibility. However, the implications for the U.S. and foreign economies will depend upon the circumstances in which this decline takes place. The middle left panel details several alternative simulations of the staff's model. In the first scenario, indicated by the solid red line, the fall in the dollar is triggered by higher-than-expected foreign GDP growth. Such higher growth might plausibly be due to the long-awaited rise in productivity growth among foreign industrial countries, for example, or to a pickup of investment and consumption in developing Asia. Specifically, this scenario combines a shock to the risk premium on U.S. assets, which would lead to a 10 percent decline in the dollar in the absence of changes in monetary policy, with a shock to foreign domestic demand equal to 1 percent of GDP in 2004 and an additional 2 percent of GDP in 2005. This combination of higher foreign growth, indicated by the red line in the bottom left panel, and the lower dollar leads to an improvement in the U.S. current account balance, the bottom right panel, and a rise in U.S. growth of about ½ percentage point, the middle right.

The second dollar depreciation scenario is a so-called disorderly correction—that is, a rapid fall in the dollar that engenders a steep falloff in U.S. bond and equity prices as well. It is not clear how plausible this scenario is. The fall in the dollar since early 2002 has not disrupted financial markets, nor did it do so during the dollar's previous correction in the 1980s. Nevertheless, this scenario arises frequently in financial press commentary on the dollar. So to explore its effects, we assumed the same shock to the dollar as in scenario 1 but added shocks to risk premiums in other asset markets that lower U.S. stock prices about 12 percent and raise long-term bond yields 50 basis points. The combined effect of these shocks is to leave U.S. growth (the dashed red line in the middle right panel) down only a little from its baseline path, as the adverse effects of higher interest rates and lower stock prices are offset by the stimulative effect of the dollar's decline on net exports. However, foreign growth is lowered about ½ percentage point below baseline, reflecting both the appreciation of their currencies and lower U.S. growth.

Finally, while we view the risks to the dollar to be weighted toward the downside, we cannot preclude the possibility that the dollar may rise above its projected path over the next several quarters. Our projection of U.S. real GDP growth exceeds that of most private forecasters, and as the market's assessment of U.S. growth and associated rates of return is adjusted upward, the dollar may be boosted as well. The blue dashed lines in your exhibit trace out the effects of such a shock. While foreign growth is boosted above its baseline path, U.S. growth is restrained a bit, and the current account deficit widens. To sum up, considerable uncertainty surrounds both future movements of the dollar and the circumstances under which such movements might occur. At the risk of saying something you may have heard here before, this makes the outlook for the U.S. external sector particularly difficult to pin down at the present time. [Laughter] Sandy will now continue our presentation.

MR. STRUCKMEYER. Your next exhibit discusses key trends in the labor market. As Larry noted in his first chart, until very recently, payroll employment has been notably weak in this expansion. As shown by the blue line in the top left panel, gains in payroll employment have run well below the typical postwar cyclical experience and have now diverged even from those in the jobless recovery of the early 1990s. Of course, the flip side of the lack of employment growth has been the spectacular increases in labor productivity in recent years. In putting together our forecast, we have again reassessed our outlook for the supply side of the economy in light of these latest developments.

With the comprehensive revision to the national income and product accounts not changing the underlying picture of productivity growth in the past few years, and with the gains in payroll employment remaining on the anemic side, we have raised our estimates of structural productivity. As indicated in the top right panel, we now estimate that structural multifactor productivity increased almost 3 percent last year, as businesses met increases in demand by better management of their existing capital and labor resources. We don't think increases in structural MFP of last year's magnitude are likely to persist, but we have boosted our projections for the growth of structural MFP this year and next. Even with these revisions, the estimated level of actual productivity (shown in the middle left panel) lies above its structural trend. We expect actual productivity to run about parallel to the trend early in 2004, resulting in continued modest gains in payrolls (the middle right). But with businesses becoming more optimistic about sales prospects, we anticipate that hiring will pick up, bringing the level of actual productivity back into line with the estimated structural trend in 2005. Returning to the top left panel, you can see by comparing the slopes of the three lines that, once hiring picks up in earnest, employment grows at about the same rate as in preceding business cycles.

Despite the lack of gains in the payroll survey of employment, household employment has increased, and the unemployment rate (the black line in the bottom left panel) has fallen. I should note that, although it has outpaced the payroll survey measure, growth in household employment in this expansion also has been weak relative to its normal cyclical pattern. Moreover, with the labor market perceived to

have little vitality, the labor force participation rate (the red line) has moved lower, on net, over the past four years. As is illustrated in the bottom right panel, this pattern seems consistent with past cyclical movements in participation about its estimated trend, and we are anticipating some upward movement in participation in the not-too-distant future in response to the past and prospective firming in economic activity. However, such an increase in the participation rate still remains a forecast, and we clearly cannot rule out the possibility that further declines in participation will result in a more rapid decline in the unemployment rate than we are projecting in the January Greenbook forecast.

Your next exhibit presents our current projections of potential GDP. As can be seen by comparing lines 1 and 3, we did not raise our estimates of potential by as much as our estimates of structural productivity. This reflects three key considerations. First, post-revision rates of wage and price inflation seemed consistent with our earlier estimates of resource gaps. Second, our model of Okun's law, shown in the middle panel, remained solidly on track after the comprehensive revision. Third, based on the persistent differences in the growth of hours worked in the household and payroll surveys, we reduced the so-called technical factor (shown on line 6) that accounts for the differences in the trend growth of hours in the household and payroll surveys. As can be seen in the bottom panel, the resultant forecast of the GDP gap is little different from the December Greenbook. And we continue to project the elimination of slack in both product and labor markets by the end of next year.

Your next exhibit presents recent data on inflation. After an energy-related bulge at the beginning of 2003, consumer prices—as measured by either the CPI or the PCE price index—slowed significantly, on net, over the remainder of the year. There also was a broad-based slowing in measures of core consumer price inflation (the top right panel) to a pace of about 1 percent. In contrast, as shown in the middle left panel, food prices accelerated over the course of last year. The pickup was related to stronger foreign and domestic demand for beef as well as to some delays in the supply response to higher prices. The middle right panel illustrates how this excess demand bid up the prices of live cattle until the discovery of mad cow disease in the United States in late December (shown as the vertical line in the panel). After a few days of significant declines, spot cattle prices stabilized at their levels of last summer and then ticked back up a bit. Futures prices suggest some downward pressure on spot prices in the first half of this year. As far as labor costs are concerned, we will get the ECI for the fourth quarter on Thursday. Wage inflation, as measured by average hourly earnings in the bottom left, fell to a 2 percent pace in December, reflecting the slack in labor markets and relative stability in expected inflation, shown on the bottom right.

Your next exhibit outlines our outlook for inflation. Overall PCE inflation is expected to slow to a 1 percent pace, on average, over the projection period. The decline from last year's pace reflects smaller increases in food prices and renewed declines in energy prices. Core PCE prices also are projected to rise at about a

1 percent pace—a tad higher than last year. Although non-oil import prices are expected to give a slight boost to inflation this year, continued strong growth in structural productivity, stable inflation expectations, and some remaining slack in resource utilization are expected to keep core inflation contained. The middle right panel presents the outlook for ECI compensation per hour, which is projected to increase about $3\frac{3}{4}$ percent per year in 2004 and 2005—a bit below the pace in 2003. We expect the contribution from wages and salaries to fall slightly as the influence of labor market slack is almost offset by somewhat greater pass-through of productivity gains into wages. Pressure from rising health insurance costs and a cyclical increase in bonuses is responsible for the rise in the contribution of benefit costs over the projection period. The bottom two panels update our FRB/US-based estimates of the probability of deflation. As you will recall, we have presented two definitions of deflation in the past. We defined “effective” deflation to be PCE price inflation of $\frac{1}{2}$ percent or less. “Pernicious” deflation adds the additional requirement that the unemployment rate exceeds 6 percent. As shown on the bottom right, although both probabilities have fallen significantly since your June 2003 meeting, they still remain nontrivial risks to the staff forecast.

Finally, at the risk of inflicting further psychological trauma on the Chairman, the last exhibit presents your forecasts for 2004. [Laughter] The central tendency of your projections for real GDP is $4\frac{1}{2}$ to 5 percent, which you forecast will result in a decline in the unemployment rate to between $5\frac{1}{4}$ and $5\frac{1}{2}$ percent. You project consumer price inflation to be little changed this year at a pace of 1 to $1\frac{1}{4}$ percent. That concludes our report. My colleagues and I would be happy to answer any questions you might have.

CHAIRMAN GREENSPAN. Let me go sequentially in reverse. First, a minor issue on chart 10. You mentioned that the decline in the unemployment rate was held down by the rise in household employment. My recollection is that the unemployment rate is a sample statistic, independent of the population number from which we measure household employment. So that number would hold even if there were a downward revision in population. In other words, if household employment is revised down, we will still have the same unemployment rate. But the obvious issue is the participation rate, as I think you pointed out. On the foreign economic outlook, in chart 6 in the top right panel, are these nominal U.S. dollars on world exports?

MR. KAMIN. Yes, they are.

CHAIRMAN GREENSPAN. Shouldn't they be in constant price SDRs? I ask because, clearly if I were to convert these data into euros, which I could just as easily do, the exports would not show as much of an uptrend, though I assume they still would go up.

MR. KAMIN. They would most likely still go up, but I think you're quite right.

CHAIRMAN GREENSPAN. In other words, the decline you show here has exports going down with IP in 2001, which makes it look highly correlated. Yet a goodly part of that is that IP is physical, and this is nominal; but far more importantly, it's a function of which exchange rate you quote the numbers in. I'm merely indicating that I assume—but I don't know—that if you use SDRs and constant prices, that wouldn't do violence to the conclusion that you came to. Is that right?

MR. KAMIN. That is very much the case. I completely agree with you that the measure you are proposing probably would be superior. The constant price data for all of these different countries, which we were getting from their national data sources, were not available. Transforming it into SDRs is a very good idea and would be worthwhile.

CHAIRMAN GREENSPAN. Prices are not moving enough to make that much difference here. They probably don't do too much violence, but the exchange rate does.

MR. KAMIN. That is correct, and I think you're quite right that transforming the data into SDRs would be useful.

CHAIRMAN GREENSPAN. Could you actually run it using SDRs? I would be curious to see what it looks like.

MR. KAMIN. Absolutely. That said, one of the issues we've been focusing on in our forecast of trade is the fact that trade does seem to be much more sensitive to industrial production than it does to GDP. That's in part because much of trade is composed of

manufactured goods, which are more related to industrial production than to GDP as a whole. So we think there are definitely a lot of fundamentals underlying this correlation. But I believe you are quite right that the decline in the dollar has probably exaggerated the relationship presented in that chart.

CHAIRMAN GREENSPAN. Going back to chart 3—prior to the NIPA revisions, the flow of funds saving rate using the NIPA definition and the saving rate as measured by actual NIPA disposable income minus consumer outlays were remarkably close, and the pattern of the gap between them wasn't too bad. We haven't revised the flow of funds numbers, obviously; but with the NIPA revisions, that gap has opened up a bit, and there is a little more discrepancy between the two. What do we know at this stage, after all these years of looking at those two independent residual estimates of saving, to suggest which is likely to be more accurate?

MR. SLIFMAN. I don't think we have a conclusion on that. Accuracy has to be defined as relative to what?

CHAIRMAN GREENSPAN. Well, relative to the real world. Let me put it this way: In the real world, there is no discrepancy between the flow of funds saving rate and the NIPA saving rate.

MR. SLIFMAN. I understand, but I don't have any third source of the real world against which to compare the other two. The one thing we can perhaps do is to ask ourselves which of the two measures, in terms of the econometrics, helps us best in transforming the data into an understanding of consumption behavior or household behavior. Once again, I don't think there is a firm conclusion.

CHAIRMAN GREENSPAN. We've tried both.

MR. SLIFMAN. Yes, and we can't definitively say which has won over the other. In all of our work we stay with the NIPA measure because then we are working with a consistently measured system.

CHAIRMAN GREENSPAN. There's only one discrepancy.

MR. SLIFMAN. Right. So that's why we do all of our work using the NIPA data. Obviously we do look at what's happening to household balance sheets, and the flow of funds saving rate is a part of that household balance sheet system.

CHAIRMAN GREENSPAN. But remember, you're endeavoring to forecast the NIPA saving rate with the flow of funds household wealth data. And household wealth data are obviously directly convertible into a saving rate.

MR. SLIFMAN. It's the flow of funds saving rate.

CHAIRMAN GREENSPAN. So when there is a discrepancy, as is now emerging, I assume that has some noise effect on the use of that particular system.

MR. SLIFMAN. Right.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Thank you. Sandy, I have a question about inflation related to the panel on the top right of chart 13. If we were looking at this chart in quarterly terms, we would be seeing at the end of 2003 a rate of 0.5 percent—that's the number in the Greenbook—and then it goes up to 1.0 percent in the first quarter of this year. I know that in the Greenbook the recent softness was characterized as "likely temporary." I just wondered if you could talk about that a bit because obviously, if it turns out to be less temporary, it would affect one's assessment of the probability of deflation and so forth. There wasn't much said about why it is viewed as likely to be temporary.

MR. STRUCKMEYER. As we looked at the consumer price data for November and December, we were surprised at the large decline in core prices in November. In examining the detail, the declines were in some components for which we did not expect continued large price reductions. One of the categories in which we saw huge price declines in the fourth quarter was used cars, which was probably related to the price incentives on new cars. Those declines were big enough to matter for the actual total price indexes. We looked at that, and we didn't expect prices for used cars to bounce back up, but then again we didn't think they would continue to go down at a double-digit pace either. As we went through other categories, it seemed to us that in the last couple of months the prices for some particular categories were affected a lot by special circumstances. We saw that early in the year, too, when prices in certain categories moved up and then down or moved down and then back up again, and the three-month change in core inflation moved around a lot relative to the twelve-month change. I think we showed a chart in the pre-FOMC briefings several times last year depicting that pattern. The two series are converging and are fairly close together—the latest three-month change is a little below the twelve-month change—so we do think that prices are a little low now and will probably move up a bit in coming months. We aren't talking about a big bounceback; these are still monthly changes of around 0.1 percent on core CPI. That is just enough relative to what happened in November and December to have this measure tick up a bit relative to the fourth quarter.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. First, I want to thank Dave Stockton and Dave Wilcox for the memo they prepared in response to my request. I thought it was very helpful. Without going into it, I will say that I think it provides mild support for my position, but that's another matter. [Laughter]

CHAIRMAN GREENSPAN. Are you going to let the rest of us in on at least the subject matter?

MR. POOLE. This was in response to my request that the Greenbook forecast be conditioned on the market's federal funds rate assumption rather than the Greenbook assumption. It's a very good memo, and I think that it explores the issues in a very fine fashion. I'll just repeat my summary that I think it presents a case for my position.

I want to pursue that same issue in the context of the current period by thinking about where the economy is going to be at the time of our June meeting. Let's suppose that the Greenbook forecast comes true between now and then. What we would be looking at in the June meeting is five months of data on payroll employment with gains averaging 200,000 a month. That is a million more jobs—5 x 200,000. So we'd have a million more jobs, some depreciation of the dollar, and the prospect that by the end of the year the gap will be almost entirely closed. Yet we have a forecast that is built on the assumption of no response in the federal funds rate before roughly a year from now. Now, obviously, the market's funds rate forecast has moved back and forth. The December employment number itself made quite a difference in the market's view. But if we get a series of monthly increases in payroll employment averaging 200,000, quite frankly I find it hard to believe that the market is not going to be forecasting some policy response. I think that scenario fits in nicely with the subject of the Stockton and Wilcox memorandum, and I would like you to respond to that.

MR. STOCKTON. President Poole, if we went back to June of last year and had this conversation, you would have said suppose we had forecast for the second half of the year what actually transpired. If the story was 6 percent GDP growth in the second half of last year, do you

think the markets would possibly have forecast us not to be tightening until late 2004? That might have sounded far-fetched last June, but in fact that is exactly where we are right now.

There has been considerable convergence between our forecast and the market's forecast. I take that to be in part because market participants have been surprised as well at the apparent capacity of this economy to grow without generating significant pressures on resource utilization and without generating significant pressures on price inflation. In fact, we view our forecast—that we could get to the middle of this year without tightening—as not unreasonable because, if we see some pickup in payroll employment and continued strong growth, we're still going to be looking at an inflation situation that looks incredibly benign. Despite the fact that the dollar has gone down, the pass-through of that into import prices has been relatively modest, as we discussed on Monday at the pre-FOMC briefing. The indirect effects of the jump in energy prices that we've seen appear to us to be moderate, and they were quite modest previously. We're seeing very little sign of pressures on the labor cost side either in nominal compensation or in unit labor costs, obviously, with the strength in productivity. So, we don't think the funds rate path we have assumed is unreasonable; and in essence, at this point the difference between our path and the market's path is about 50 basis points by the end of 2005. We think the market will continue to be surprised by a combination of strong growth in aggregate demand but with that being matched by considerable strength in aggregate supply. We're expecting a continuation of the kind of convergence that we've seen over the last six months in their expectations toward ours.

Having said that, there's tremendous uncertainty about how the markets will react to the data, whether or not our forecast will be right, or whether the market's view of underlying economic developments will be correct. So, we feel pretty comfortable that we are putting on

the table an outlook that is not far-fetched and in fact could be quite reasonable. And I take the behavior of financial markets over the last six months as some small evidence in support of our position and approach.

MR. POOLE. If I may make a follow-up comment: The issue to me is not so much who wins the horse race. Obviously, we can point to particular cases where one approach is superior by looking at the statistical evidence you present. In fact, in recent periods I believe the market forecast has been perhaps ever so slightly better but not significantly different. For me that is not the issue. It's exactly what you just said—that if we were to condition the Greenbook baseline on the market forecast, then it would display very clearly what is different in your view from the market expectation.

Let me also refer to another example, which was the beginning of the recession. In that case the market was predicting declines in rates before you were. If you had used the market view as your conditioning assumption for the forecast, you would have asked the question, Is the market detecting some weakness in the situation that we don't see? That was the key question at that time, just as the key question now is whether the market is picking up the possibility of either some inflationary pressure that we don't see or a boom that is going to outrun what is currently our best guess regarding the economy's performance. It seems to me that using the market assumption would help us to focus on those very key questions.

MR. STOCKTON. Obviously, we are looking at those signals from the market and asking ourselves precisely those kinds of questions. We are not ignoring that. We think we have incorporated our best judgment as to what signals the markets are sending us. It wasn't that we weren't paying attention to what the market was saying in late 2000; we just had an excessively optimistic view of what was going on. I would say that three or four months later we were

forecasting a flat funds rate going out and the markets were already forecasting an increase in interest rates starting in the second half of 2001. We did not incorporate that market view, and in that case I think our judgment was better. But you are right—it's not a matter of who wins the horse race. It's a matter of putting on the table a vehicle that is useful for your discussions. And as we noted in the memo, we thought we would be producing a less helpful vehicle by using those market expectations. We cited a few examples where using the market-based funds rate would have presented an outlook that was inconsistent with our view of the economy. There were times that the market was forecasting a tightening of monetary policy when we viewed the underlying strength of the economy as considerably weaker than the market thought. So if we had taken the market's view about interest rates with our view about how the economy was developing, we would have produced a baseline forecast that had a tightening of the federal funds rate with the unemployment rate rising and the inflation rate continuing to come down. That did not seem likely to be the most helpful vehicle for organizing your discussion.

As David Wilcox and I noted in our memo, the information content of the staff's forecast is pretty much independent of the assumed funds rate path. We could write down an infinite number of funds rate paths and an infinite number of GDP, inflation, and employment paths to go along with that. The fundamental information that we would be bringing to the table would be the same in each one of those various simulations. The issue is where you want to begin in terms of the framework on which to base your discussions, and I think that's a matter of taste on your parts. We've tried to address some of your concerns by putting on the table some alternatives, and at times we've provided a market-based funds rate scenario. At other times we've recognized that many of you might be wondering what the outlook would be if the fed

funds rate were held constant throughout the forecast period—that in some sense that could be more helpful in your discussions. That's where we come out at this point.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. I put my name on the list because I wanted to ask a mere question, but since this other issue has come up let me give my view on that. I tend to be on the Stockton–Wilcox side on this issue. It seems to me that, for the staff forecast to be maximally useful to us, we want to know what is being assumed and how it all fits together. I have more confidence in the way the staff now does it—where they are perfectly open about their assumptions, and there is some central guidance to make sure that all of the sectors are using the same assumptions. As Dave just pointed out, if there is random information here and there about this or that, they can work it in. But at bottom they have a consistent view of what is going on. I think if we asked them to base everything on the market funds rate, they would have to get the market view of this and the market view of that, and I'm not sure how they could do that. So I've always had a preference for the way the staff does its forecasts now. I think, Bill, that the simulations you asked for on the market funds rate have been very helpful, but I'm actually quite content with the methodology that is presently in use.

Now, let me ask my question. In the press there is beginning to be talk of new bubbles. I'm collecting all the information the staff has on that, so let me see if I have it right. First, Larry, at the bottom right of chart 3 on house prices: If you squint at that, before the forecast domain house prices actually are falling rather sharply.

MR. SLIFMAN. They've started to fall. Rather, the rate of increase is coming down.

MR. GRAMLICH. Yes, the rate of increase is coming down. Another issue discussed in the press is the earnings–price ratio, and that ratio was a subject discussed in the briefing on

Monday. The earnings–price ratio is at reasonably high levels, which means that prices must not be extraordinarily high. Prices are the denominator there. So as far as I can tell, you don't collectively put much credence in the likelihood of new bubbles. Maybe somebody would like to comment on that issue.

MR. SLIFMAN. I will agree with you. [Laughter] It is true that in our baseline forecast we don't see any bubbles. We've tried to lay out the possibility of risks and point out to you where, if we are wrong in that judgment, bubbles could occur. For example, by our forecast there isn't a bubble in house prices; but if there were, we have tried to point out that that could be a risk. So if that sector were to collapse suddenly, we have indicated the implications of that for household balance sheets. But you are correct that in our baseline we do not have a bubble.

CHAIRMAN GREENSPAN. The earnings–price ratio is a function of the low interest rates. We have low discount factors going out on earnings, which create the high ratio of price to earnings. One would really have to argue that the bubble is in the bond market and not in the stock market, which raises interesting inflation expectations.

MR. STOCKTON. I would just add a comment on the house-price side. I would say that a year and a half or two years ago we were very skeptical about house prices having more frothy characteristics. We are quite happy to see a slowing in house-price appreciation. House prices have moved high relative to rents, and I think we are a little less confident about those being at full equilibrium. If anything, we would be a little worried about the risks of a sharper deceleration. It is quite rare for aggregate national house prices actually to turn down, but I don't think we could rule out a period of extended flatness in real estate prices going forward. And that would put more pressure on household balance sheets than is incorporated in the baseline forecast.

MR. GRAMLICH. But the argument is that, if there were a bubble or a mini bubble, we are already seeing the adjustment to it as house prices are coming back into better balance with rents.

MR. STOCKTON. Well, even these rates of house-price appreciation are faster than the growth rates that we've seen in nominal rents so far. So we've got to get that part down into a sort of balance before we even have the ratio of house prices to rents flattening out some.

CHAIRMAN GREENSPAN. Is the house-price-to-rent ratio affected by the rapidity of the rise in the homeownership ratio?

MR. STOCKTON. I'm not sure. There wouldn't necessarily be any linkages. There is some substitution but—

CHAIRMAN GREENSPAN. People's propensity to move out of rental units and into their own homes clearly has far more effect.

MR. STOCKTON. On the margin that could certainly be a factor. My guess is that it wouldn't explain the basic divergence we've seen between house prices and rents.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. This last exchange actually was my question. The assumption you seem to have made is that in fact the relationship between house prices and rents will converge back to the norm. We've talked about some of the risks. Are there other risks that it won't happen that way and that something else is going on—perhaps in the direction the Chairman mentioned or in other directions?

MR. SLIFMAN. Let me be perfectly clear about one thing. We have a couple of different ways in which we try to make an assessment about what is happening to house prices. One of those doesn't take into account the arbitrage condition, as it were, between house prices

and rents; it basically looks at interest rates and cyclical variables. On that basis, the expectation would be that house prices would continue to rise quite rapidly. When one takes into account the gap between house prices and changes in rents, that model would actually have house prices, as Dave indicated, essentially having to flatten out and the gap coming down to zero. So what we have done in the baseline forecast is to take a position about midway between, moving only part of the way toward that flattening-out view of the world. And the point Dave was making is that the flattening-out model could be the right one, so there is a chance that we could see more house-price deceleration than we've forecast. We could see the change in house prices actually flattening out for a while or perhaps—though it would be unusual—even turning negative.

MR. FERGUSON. I gather from what you've said that you have another real-factors model, if you will, suggesting that house prices will go up more.

MR. SLIFMAN. Yes, that model suggests that house prices could rise faster than what we've put into our baseline. So we've tried to take a position somewhere between those two.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I would like to ask a two-part question about the employment and unemployment numbers—the household versus establishment data. What is your feeling about what the data are telling us? Why has the household series been outperforming the establishment series for such a long time, and what does that mean? Also, did you do any analysis on Alan Meltzer's *Wall Street Journal* article in which he was arguing that there was no real increase in unemployment? There have been other similar articles. It seems as if the Greenbook takes the approach that the two series are just different; they are measured in two different ways, and they are what they are. Do you think we are being overly pessimistic about employment and about the jobless nature of the recovery?

MR. STRUCKMEYER. We think that the payroll survey is probably giving the more accurate description of what is really going on in the labor market. One of the things that people have looked at in the household survey is whether the estimates of population on which that survey is fundamentally based are correct. If they have overestimated population, as they did earlier in the decade, then that will inflate household payroll gains relative to payroll gains. We think there is some preliminary evidence that that might be the case for the early years of 2001 and 2002. We've seen divergences between these two surveys in the past, and they tend to correct over time. The BLS tends to put greater weight on its measure of the payroll survey, and we have historically also. So we believe that is an accurate description of the state of the labor market today.

MR. MCTEER. Leading up to the December report, new claims for unemployment insurance were running quite low relative to where they had been, and the December report just seemed to come out of the blue. Do you have any comment on that? Will the December employment figures be revised up, do you think? Were there seasonal adjustment problems?

MR. STRUCKMEYER. That is possible; the December report seemed an aberration to us. It didn't seem consistent with all of the other data we were getting at the time, and we may see a revision in the next report. The claims data are measuring people going onto the unemployment rolls, and we've clearly seen fewer layoffs occurring in both that series and the challenger series—or in any of the other layoff series that we look at. We have not yet seen in earnest a pickup in hiring—the flow of workers back into jobs. The dearth of hiring is a pattern that we still are seeing through the third and fourth quarters in the labor market. There has been some good news—layoffs are down—but hiring isn't really up yet the way we would like to see it.

MR. MCTEER. In the third quarter, the 8.2 percent growth in real GDP was matched by 9.4 percent for productivity growth. Do you expect some ridiculous number like that for productivity in the fourth quarter?

MR. STRUCKMEYER. No. Larry's chart has our productivity number at about 3¼.

MR. SLIFMAN. I'm just looking at my chart, and I think it may be misplotted.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. As a short extension to the last discussion, I think we're all waiting for the number that we believe is the better number to record employment growth. The payroll survey had started to act the way it should if we're going to have a self-sustaining recovery here. I know everybody was disappointed with the December numbers. I'm looking at your chart 10, the bar chart on nonfarm payroll employment going into 2004. Granted, the last half of 2003 did show employment growing, and that's a good thing. It certainly is moving in the right direction. But how confident are we about the jump in the bars from the last half of 2003 to the first half of 2004? We seem to keep revising our thinking about productivity based on backward-looking disappointments, if you will, about the strength of hiring. Do we have other evidence that gives us some confidence that this increase is going to take place?

MR. STRUCKMEYER. As we look at the historical relationship between growth and employment, we think hiring will kick in at some point here, and when it does we may be understating payroll gains. We have revised down our payroll employment forecast in recent rounds. As I look at the blue line in the top left chart, the rise does seem a little shallower than the norm. But that may be a second order effect in the eye of the beholder; I could imagine a period of gains in payroll employment for a while in excess of what we've written down here.

MS. MINEHAN. If we started to see the gains, then I could imagine that, too.

[Laughter]

MR. STRUCKMEYER. We've seen it before in past business cycles.

MR. STOCKTON. Obviously, in terms of our understanding how much productivity and efficiency gains are still there to be harvested—let's say one-time increases—we have almost nothing upon which to gauge that. We can talk to businesses or try to undertake econometric estimates, but we have been consistently surprised over the course of the last two years by the performance of productivity. One of the biggest challenges in putting together the forecast has been to try to assess how much of what we've seen in productivity is going to be sustainable growth going forward. We don't know how much was a series of one-time adjustments that firms accumulated over the late 1990s through tremendous amounts of capital investments or how technology may have offered organizational efficiencies that businesses are just being able to take advantage of.

I don't think we have very much confidence at all in our ability to pinpoint the quarter or even half-year in which that stock of efficiencies will play out. Could that go on for another year? I think that's certainly possible, and one of the simulations we had in the Greenbook was in essence a higher level of productivity prospectively. What that forecast produced was a weaker labor market, higher unemployment, and lower inflation than we are showing in the baseline. I think you have to give that some reasonable probability weight in your thinking about how the employment situation is likely to progress.

On the other hand, as hard as it is to believe that there are upside risks to our productivity forecast, that also remains a possibility. A year or so ago productivity turned out to be much stronger than we thought. So it may be that over the second half of last year there was in fact an

improvement in underlying productivity that was being recognized by businesses and households and those entities really did step up their spending quite significantly. And it may be that what we are seeing now is just not a terribly unusual lag between that step-up in output growth and a pickup in employment and that we will soon start to see a more significant increase in jobs.

Taking our models that use labor market indicators—such as initial claims, layoff announcements, and past payroll employment gains—we don't need to see any further improvement in those indicators to get job growth on the order of the 150,000 per month that we are forecasting for the first half. Those same models have been predicting better employment gains than we've seen for the last six months. So there are still some very significant risks, and I think that your queasiness about the extent of this step-up is well founded because of our inability to be able to pinpoint precisely when those productivity opportunities will for the most part have played out.

MR. SLIFMAN. Mr. Chairman, unfortunately there is a charting error on chart 1 in the exhibit on nonfarm business productivity at the bottom left. I just want to point it out so that no one is confused. Rather than plotting the quarter-to-quarter percent changes in those bars we inadvertently plotted the percent change from four quarters earlier. So the correct numbers should be 9.4 percent for the third quarter, 3.3 percent for the fourth quarter, and 3.7 percent for the first quarter of 2004.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. I have what I hope is a quick question on chart 3 about the saving rate, which is clearly very important to the forecast. In the middle panel, you say, "The current saving rate is still well below the level that many observers often think of as a more normal rate." But below that in one of the bullets you say that the current settings now

“point to a target saving rate for the next year or two in the neighborhood of 3 percent.” Is the target the same as what most observers often think of as normal?

MR. SLIFMAN. I was using what I thought was constructive ambiguity there.

[Laughter] I’m not sure what most observers think of as the normal rate, but when one reads Wall Street newsletters and things like that, one often sees numbers like 6 or 7 percent. I prefer the term “target” because I think it implies what we think is actually going on in terms of our models of consumption—that households have a target saving rate that is based on things such as those I noted here, including the wealth ratio and real interest rates. And then it is affected by the composition of income and, in particular, the role of transfer payments. So I prefer the target concept; and by our reckoning, that would currently be something on the order of 3 percent or so. That is the number that I think we should be focusing on.

MR. MOSKOW. But as you see this expansion, what are we targeting on?

MR. SLIFMAN. In the extended Greenbook simulations that are presented in the Bluebook, we have real interest rates rising out to 2010. Consistent with the baseline of that extended forecast in the Bluebook, we would have by 2010 a target saving rate on the order of 6 percent. But that’s not what we should be thinking about for 2004-05.

MR. MOSKOW. But we could see a sharper upward movement in the saving rate.

MR. SLIFMAN. Absolutely. And as I pointed out, that 2.8 percent saving rate that we’ve written down for the end of 2005 still is a bit below target, so we could clearly get a more complete correction to target and maybe even some movement above that target.

MR. MOSKOW. Thank you.

CHAIRMAN GREENSPAN. Who wants to start the Committee discussion? President Parry.

MR. PARRY. Thank you, Mr. Chairman. Economic activity in the Twelfth District continues to gain momentum. For example, retailers in the West had an encouraging holiday season, with considerably stronger sales this year than last year. Spending by businesses is also picking up. The bulk of our contacts say that they will increase capital spending going forward, citing plans to replace both IT and non-IT equipment. One machine tool maker tells us that her order book is full for the entire year. District computer makers like Hewlett-Packard have seen sharp increases in demand, helping to boost output for semiconductors and in turn semiconductor equipment. Commercial aerospace has yet to see a pickup in capital spending; however, folks in Washington State breathed a sigh of relief when Boeing decided last month to go forward with developing the new 7E7 and to assemble the planes in the Seattle area. Overall, the labor markets in the west have improved over the past year, especially outside California. In fact, nonfarm payrolls in the Twelfth District outside California are back up to pre-recession levels.

In California, a new governor and to some extent an improved economic outlook have motivated lawmakers to break the gridlock and tackle the state's accumulated and long-term budget shortfall. In late December, legislators voted to place a long-term deficit reduction bond and a state reserve fund requirement on the March 2 ballot. The deficit reduction bond would refinance the state's accumulated deficit from the current and previous budget years. At this point, polls show limited public support for the initiative, but the governor and the state's comptroller have started a big push to convince voters to approve the ballot measures. A few weeks ago, the governor turned his attention to the state's long-run structural gap, proposing a multiyear workout plan. For the 2004-05 fiscal year, the plan calls for \$9 billion in permanent spending cuts and programs saving \$6 billion in loans and deferrals. We will see some fee increases such as for higher education, but new broad-based taxes are not in the plan. So far the

governor's proposal has received more positive than negative feedback. The independent legislative analyst's office called the plan a solid first step. The state comptroller, a Democrat, and several members of the legislature from both parties have stated that they will work with the governor to craft a final agreement. That said, significant hurdles to enacting a budget remain. A formidable group of lawmakers wants to raise taxes, and several of the governor's proposed spending cuts and spending deferrals may not withstand legal challenges. One example is the proposal to reduce fees for MediCal doctors. Some of the governor's revenue hopes also may not be realized. He wants to get a larger share of revenue from tribal gaming, but the U.S. Department of the Interior probably will not cooperate since it has blocked similar contracts in recent years.

Turning to the national outlook, recent data on spending confirm that economic activity is on a path of robust growth. We expect GDP to grow about 5 percent this year and about 4¼ percent next year. This forecast assumes that policy remains on hold until the fourth quarter of this year and then tightens gradually until the funds rate reaches 2½ percent by the end of 2005. Under this scenario, resource utilization would rise over the next two years, and the unemployment rate would fall to about 5¼ percent by the end of this year and to 5 percent by the end of 2005. Here I must admit that the unusual behavior of payroll employment and labor force participation raises questions about the amount of labor slack going forward.

The latest data on core inflation have come in very low indeed. These data together with earlier revisions imply that the core PCE price index rose hardly at all over the past year after adjusting for bias. In response, we have lowered our forecast of inflation, and we now expect core PCE inflation to come in at 1 percent this year and slightly above 1 percent next year. The new data also raise the possibility that inflation will decline further to uncomfortably low levels.

Although the probabilities of upward and downward movements in inflation may be balanced, the cost of a bit higher inflation appears smaller than the cost of a bit lower inflation. To me, the inflation and employment data argue strongly for leaving policy unchanged despite the strong growth in real GDP. Further, some long-run simulations carried out by my staff suggest that a policy of leaving the funds rate at 1 percent through the end of this year leads to unemployment and inflation paths that are virtually indistinguishable from those generated under the optimal policy, assuming an inflation goal of somewhere between 1 and 2 percent. Thank you.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Economic activity in the Seventh District continues to pick up, and our business contacts are clearly more optimistic than they have been in years. On Friday, the Chicago purchasing managers will release their January report. The index will be at 65.9, the highest level in nearly twenty years; everything was strong except for inventories and employment. Of course this is confidential until Friday.

From our contact calls, we have heard three interesting themes regarding capital expenditures, labor markets, and prices. First, plans to increase capital spending have become more broad-based. And we were encouraged by our District's results from the Board's recent survey: 62 percent of respondents in our District plan to increase their capital outlays over the next twelve months, up from 37 percent last June. The survey and our other contacts suggest that, for firms in our region, replacement demand is still the driving factor rather than capacity expansion. Spending continues to be for equipment rather than structures. The survey also indicated that tax incentives are more important in our District than elsewhere, perhaps reflecting the longer lead time for our mix of industries.

We continue to hear good reports from producers of telecom equipment and heavy machinery, and orders for medium and heavy-duty trucks jumped dramatically as shipment load factors have improved. One automaker said that fleet sales to rental car agencies, which have been sluggish since September 11, 2001, finally picked up in the fourth quarter. For January, automakers expect light vehicle sales of 16½ million to 17 million units. As a cautionary note, there is still a good deal of uncertainty about the how the month will play out even though we are almost at the end of January. Our contact at General Motors pointed out that half of their monthly sales during 2003 took place in the last six days of each month.

The second theme that we are hearing is that labor markets are improving, with fewer reports of layoffs and more plans for permanent hires. Both of the large temporary-help firms that we contact have continued to see steady growth in workers on assignment. One of them noted that transitions from temporary to permanent positions have increased recently, and we are hearing some other reports of permanent hiring, but much of it involves replacing departing workers. In my District this is happening at all levels, including the highest ones. In fact, I am looking to replace four of my contacts who are among the ranks of the recently departed CEOs.
[Laughter]

The third theme is that, despite robust demand, we are hearing mixed stories about the ability of businesses to increase prices. Several firms have been unable to push through modest price hikes. A large printer told us that paper suppliers tried several times to raise prices but none of the increases stuck. A specialty retailer reported that consumers are buying only if the product is on sale. And a major airline added a fuel surcharge to ticket prices but abandoned it eighteen hours later. A few firms, however, have been able to raise prices or reduce discounts. Last quarter one of the Big Three automakers increased their average net price—that is, the

average sticker price minus incentives—for the first time in five years. In heavy equipment, one manufacturer pushed through a price increase, and more generally we are hearing of fewer price concessions. And, of course, strong demand internationally, especially from China, has boosted steel prices.

Turning to the national outlook, on balance the numbers have been strong. The strength in capital spending now extends beyond high-tech goods and into more traditional equipment. Consumer spending has held up well, and residential investment remains robust. The obvious exception to the recent positive news, as we were discussing earlier, is the payroll employment series. December's data were particularly disappointing, especially in light of the encouraging claims numbers. Given the statistical uncertainties, we probably don't want to place too much weight on the employment figures at least until we see January's report.

More generally, our GDP outlook is close to the Greenbook's. Over the near term the risks regarding inflation appear to be nearly balanced, as we said in December. I do not see any urgency for changing the funds rate target, but the key question is what to do about the phrase "considerable period" in our post-meeting statement. My preference would be to remove it at the earliest practical date. Our previous statement conditioned the phrase on low inflation and resource slack, so given this conditioning we probably should retain it until we see some more positive signs on employment, which I hope will be by our next meeting.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. I've talked recently to most of my usual contacts. My Wal-Mart contact said that he views the situation as a bit confusing. I've mentioned before the midmonth paycheck cycle that has been evident in the pattern of sales at Wal-Mart. Wal-Mart had sales on January 16 that were 12 percent above sales on January 14 as

a consequence of the arrival of paychecks in the middle of the month. My contact said that the ratio is about as large as they ever see; a normal number is more like 4 percent or even zero when the economy is really strong. However, overall sales in January so far are coming in at the top of the expected range—about 5 percent above year-ago numbers for same-store sales. Wal-Mart is concerned that, if job creation does not occur soon, their sales growth may taper off because in their view the consumer is liquidity constrained.

My UPS contact said that UPS had, in his words, “an explosive December.” Business was well over projections. International shipments, especially electronics from Asia to the United States—as well as computers and TVs—were extremely strong and particularly so in the four or five days before Christmas. He said that fuel prices are going to play a major role going forward, although UPS is significantly hedged against the price increases. To give you an idea of the magnitude of the miss here, UPS had planned on jet fuel at about 84 cents a gallon, and it is coming in at 99 cents per gallon, a significant upward revision. UPS expects to be passing along that higher cost in fuel surcharges, although there is a lot of customer resistance.

Nevertheless, he said that it looks as if it is going to be a great year. They are expecting a super year in terms of growth, but they are managing costs very, very tightly, deferring projects until the point where they just have to do them. He also reported that they are seeing headhunters prospecting for UPS employees to move to other firms; I thought that was rather interesting.

My contact in the trucking industry at J.B. Hunt said that business is much better now than it was last January. Volume is running about 8 percent above January a year ago, and the increased activity is across the board by region and by industry. But he said it is a bit hard to sort out how much of this is a consequence of the improving economy and how much is due to the reduced supply of carriers. A lot of the trucking companies are no longer in business. At the end

of last year, I talked about the fact that there were new constraints on the number of hours that drivers can drive. I asked my contact if there had been any impact from that and he said “no” because the Department of Transportation has permitted a two-month delay in the enforcement of the new rule. J.B. Hunt, by the way, also has imposed fuel surcharges.

Our contact at Bank of America said that the bank has been experiencing a moderate pickup in small business lending and that middle-market lending has flattened after sustained declines. Larger commercial lending has yet to turn up.

I would like to comment briefly on two other issues relevant to the national outlook. We had some discussion earlier about the employment numbers. Bob McTeer raised a question about the household employment series, which had to do with statistical population controls, and an issue on the payroll number, which had to do with births and deaths of business firms. An enterprising staff member in St. Louis, Kevin Kliesen, contacted four states—New York, California, Georgia, and Texas—from which he was able to get some data on new incorporations. One of the problems is that the payroll numbers in the birth–death models, which apparently resemble fancy ARIMA models, are not tied to current information on actual firm births, which would be relevant at the present time. The Texas numbers applied to the first eight months of last year and were converted to an annual rate. In all four states, new business incorporations grew at a slower rate in 2003 than in 2002. I think that sample at least tells us that there is no smoking gun in terms of the payroll survey failing to pick up new firm births. If these numbers had gone the other way, that would raise more questions in my mind.

I want to comment briefly also on the inflation outlook. Bob Rasche and Jeremy Piger did a very nice memo for me on this subject. They used a standard Phillips curve equation—a Bob Gordon type of equation, which I don’t think is too far from what is in the Board staff’s

model—which makes the rate of inflation dependent on inflation expectations. They did their analysis in several different ways, on the CPI and on other measures. The Gordon models and the Rasche and Piger model have a distributed lag on the actual rate of inflation, a gap term, a shock term, and a random term. That is a pretty standard formulation. Now, suppose you leave the gap term out of the equation and then compare that equation with one that has a gap term in it. If you compare the standard error squared—you can sort of convert that to an *r*-squared kind of measure—it turns out that the gap adds, depending on exactly how you measure it, only perhaps 8 to 15 percent to the total predictive value. A lot of the variance over the sample period comes from the high inflation years in the 1970s, when we had some big swings, and that is when we saw a major impact from the shock terms as well—the food and energy prices.

What I am driving at here is that a great deal of the inflation picture—most of what we can talk about systematically—is tied to the gap term. But historically some very important changes in inflation have come about that can't be explained that way. We shouldn't forget about that fact if we start to get some rise in inflation. The significance of that will depend on how one wants to interpret the expectations term. If you think of it as just a pure distributed lag, then you get a lot of warning about rising inflation because the expectations feed through slowly. On the other hand, if you think about that as econometrically proxying for expectations that could move pretty quickly, we could find ourselves in a situation in which we would have a surprise. We could have more inflation on our hands than we would predict right now. I just want to emphasize this point: Most of our discussions have focused on the gap term, but historically that's not where we find most of the predictive value in an inflation equation.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. The economic picture unfolding in our region, like that for the nation, continues to be encouraging. Both the hard data and the accompanying commentary from merchants confirm that holiday sales were quite positive. We continue to see a changing mix of fortunes among traditional retailers, specialty retailers, discounters, and Internet shopping sites. Combined holiday sales exceeded last year's by almost all accounts. The news from our important tourism industry continues to improve, with reports of record-breaking attendance for some District attractions and stronger hotel occupancy and bookings. Single-family residential housing markets in our region remain strong; and even in the depressed multifamily residential and commercial property sectors, vacancy rates seem to have peaked and are beginning to improve.

Business sentiment has decidedly improved across a wide range of business executives that I have talked with. That optimism and strong profits are being reflected in capital spending and capital spending plans. Interestingly, that spending is no longer just for cost savings opportunities or for equipment replacement; I am also hearing more reports of spending to expand capacity in selected cases because sales are strong. Trucking firms, in particular, have noted a significant turnaround in both hiring and truck orders. Our bank examiners report that large regional banks are seeing a measurable pickup in commercial loan demand, although that renewed activity is still more in the discussion stage than in actual loans booked. Negative reports are now coming mostly from struggling manufacturing industries such as petrochemicals and apparel.

The area of greatest risk and uncertainty in our regional picture over the near term is employment. While our region continues to lead the nation in employment growth, we have seen some falloff in the pace of that growth since the last meeting. That said, the two states that

account for the lion's share of the growth we are getting, Georgia and Florida, now have unemployment rates of only 4 percent and 4.7 percent, respectively. The largest employment gains remain in employment services, and not surprisingly the job category showing net job losses continues to be nondurables manufacturing.

At the national level, I think we have to be rather pleased with the trends we are seeing and expect to see in the composition of growth. I interpret the vast majority of recent high-frequency data to be very positive. To my mind, perhaps the most important reading since our last meeting is the confirmation of strong business profits and improved business confidence, which are now clearly translating into more investment spending and inventory rebuilding. That, in turn, should eventually contribute to some better job growth. Like many others who have already spoken, I see the extent and timing of job growth as probably the greatest short-term risk to our forecast. In fact, our own forecast is on the low side of the Greenbook and other forecasts. We are less sure that hiring will be as robust as others are expecting.

The greatest longer-term risk, in my view, is the large and growing fiscal imbalance. The better federal fiscal picture was an important contributor to our economic successes in the 1990s, supporting our ability to conduct monetary policy geared to controlling inflation. Fiscal imbalance, should it continue or worsen, may significantly complicate our longer-term policy choices. Overall, my near-term outlook does not differ greatly from that in the Greenbook, and the differences hold little significance for short-term policy, which I believe is about right for now. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. Economic conditions in the Third District continue to improve, and business sentiment is positive. Manufacturing activity in the

region continues to expand, and the index of general activity in our January business outlook survey showed a strong rise to 38.8 percent, the highest level we have seen since the early 1990s. The indexes of new orders and shipments were a bit lower in January than in December, but they also are at the highest levels we've seen since the early 1990s. Gains were broad-based, with only textiles and food products showing net negative readings.

We, like the other Districts, participated in the Board staff's survey on capital spending plans. We surveyed sixty-nine firms in the manufacturing, finance, trade, and service industries in our District. Fifty-five percent of the respondents said that they plan to increase capital spending in 2004, whereas only 15 percent plan to decrease spending. The margin of "increasers" over "decreasers"—I don't think those are words, by the way—[laughter] is larger than it was last June, when only 33 percent planned increases and 25 percent planned decreases. In our District the most common reasons cited for the rise in capital expenditures were higher sales growth and the need to replace capital goods. The latter was a point that came out in one of the slides shown by the staff this morning. I should add, however, that most of the firms we contacted indicated that the year-over-year increases in capital spending would be slight to moderate. I would also note that the majority of firms in the national survey that planned increases have already placed orders associated with that planned spending. This is true in the Third District as well, but firms in our region appear to be waiting a bit longer to place orders than firms in the rest of the nation.

Retailers in our District reported that sales growth during the holiday period was solid, meeting or exceeding their expectations. On average, sales were up 4 to 5 percent from year-ago levels in area stores, though our retailers had expected 3 to 4 percent growth rates. The last time we met I reported that business lending in the Third District was beginning to pick up. This has

continued. Several of our bankers reported that they have seen more optimism among business customers and expect business lending to continue to expand.

Construction activity maintains the pattern it has shown since the recovery started. Residential construction and home sales continue to show strength while commercial real estate markets remain soft. The job market in our region continues to outperform that of the nation as a whole but still must be characterized as weak. For the three states in total, payroll employment basically has been flat since the start of the recovery compared with a 0.6 percent decline nationally. And the tri-state unemployment rate averaged 5.3 percent for the fourth quarter according to the data released just yesterday, compared with 5.9 percent for the nation. In summary, the economic recovery continues to build momentum in our District. This is being reflected in the improved mood and sentiment of business contacts in our region, who are projecting further improvement this year.

Turning to the nation, economic activity continues to expand at a strong pace, although employment remains soft. The consumer continues to support the recovery, while investment spending is coming back, supported by strong profit growth. The recent weakness in job growth is the biggest disappointment, as we all have pointed out here. These data seem to be at odds with the survey evidence—including the business outlook survey, which suggested that firms are beginning to add to their payrolls. Nonetheless, we can only respond to the data we have. The Philadelphia staff forecast sees stronger job growth going forward, though less strong than the Greenbook does. Although productivity growth is unlikely to match the 5 plus percent pace we have seen, we believe it will remain strong enough that the near-term improvement in labor markets will be moderate but positive. In our forecast, job growth is expected to be around 2 percent this year and next. That pace of payroll growth translates to about 200,000 jobs per

month over the next two years. This picks up on the theme that President Minehan mentioned earlier about the Greenbook forecast for employment gains being much stronger than that. The job growth we forecast is a bit slower than pre-recession numbers—job growth averaged 2½ percent in the late 1990s, for example—but it is consistent with the reports we are getting from our business outlook survey respondents and other firms about their hiring plans. We forecast a modest decline in the unemployment rate to 5½ percent for the fourth quarter of this year and 5¼ percent for the end of next year.

Our forecast for GDP growth is similar to that of the Greenbook, with consumption growth in the 4 percent plus range supported by improved job prospects. The higher tax refunds expected this year lead us to forecast somewhat stronger consumer spending in the first half of the year compared with the second. Our forecast for business spending is slightly stronger than that of the Greenbook, but both can be characterized as robust. We expect the expiration of the investment tax credit to pull some investment forward to 2004 from next year. Growth abroad is also expected to strengthen next year, and in our judgment, this combined with the lagged effect of dollar depreciation means that export growth will accelerate over 2004 and 2005 whereas import growth will decelerate over 2004 and 2005. Thus, we believe that trade will be less of a drag on GDP growth in 2004 and may make a small positive contribution.

Our view on inflation differs only a bit from the Greenbook. Like the Greenbook, we expect strong productivity growth and only slow improvement in labor markets to keep inflation low this year. However, we are forecasting a small acceleration next year. Even so, inflation in our forecast remains very low—in the 1¼ to 1½ percent range—over the next two years. As with all forecasts, there are risks. But to my mind the risks seem to be smaller, and they also appear to be balanced. Given all of this, I see no reason to change our policy stance now.

However, given the lags in monetary policy, the time for a change is approaching. So I believe we need to think about the conditions that would cause us to adjust policy and what we need to do now to increase our flexibility to respond to changing events. It could turn out that there will be a surprise on the upside, and we have to be prepared for that. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. The Tenth District economy has actually strengthened further since the last meeting, and business contacts are frankly relatively optimistic about the year ahead. I attended a tech conference near Boulder about two and a half weeks ago. That conference is held each year at about the same time. Last year about 150 people attended. This year about 400 people were there, and they were all very much engaged with projects going forward. So there is a clear improvement in attitudes in some of the technology areas. Also, energy activity in the District continues to be strong, primarily in the natural gas area, and is very positive generally speaking. Manufacturing activity actually continued to expand in December. Both production and new orders moved further above year-ago levels, with orders posting their strongest growth in some years. Inventories also rose above year-ago levels for the first time in three years.

In our survey on capital spending we did see some improvement on net. Thirty-one percent of the manufacturers said that they expected to increase expenditures in the next six to twelve months, and that is a substantial improvement over the numbers for our region in the previous survey last May. Many firms that are planning to increase spending cited the need to replace primarily IT and some other equipment. Having said that, some respondents provided specific comments indicating that they were going to hold onto their current equipment until it

actually fell apart on them before they would invest again. They were absolutely committed to not spending money at this time.

Commercial real estate activity is still weak in our area. Vacancy rates actually edged up in the fourth quarter, and we are not seeing a lot of construction activity in that sector of our regional economy. Labor markets also remain soft, but the underlying trend of layoffs and new hires was a little more favorable this time. Adjusting for some of the mad cow effects on meat packing plant activity, we have seen more hires than layoffs based on our own surveys.

In the agricultural economy, 2003 was a very strong year for our region and I think nationally, primarily because of the decline in the dollar and the demand overseas. We actually are going to have some of the highest earnings in several years in the agricultural sector. In fact, agricultural income hasn't been that high in the last seven years. So that is really positive. And we now expect that the mad cow effect will be less severe than we had originally thought, based on talks with various groups in our region where that threat is so important.

Turning to the national outlook, I would agree with those who say that recent indicators confirm a strengthening in the economy looking ahead. Our projection for GDP growth is not as strong as the Greenbook's; we have it more in the area of 4½ percent. But I think that the differences are a matter of degree. The direction is the same, and some of the reasons for the improvement are the same, including very accommodative monetary and fiscal policies and favorable financial conditions. So I think we will see some improvement.

One comment I did want to make is related to the point that President Poole mentioned about looking at the output gap as an indicator. I, too, am a little uneasy about putting much weight on the output gap because the estimates of its size are so varied. The same is true of some other parameters such as the natural rate. The gap could be as little as ½ percent of GDP or

as much as 2 percent, and that is too wide a range on which to base judgments. So I think President Santomero is right in asking what areas we are going to look at to help guide us in our policy decisions in the future. That is a very important question.

As for the inflation outlook, we think inflation is most likely to increase over the year by perhaps as much as ½ percentage point, given the fact that we have a very accommodative monetary policy and fiscal stimulus in the pipeline. I think that is an important consideration for us as we look forward. I'll stop at that.

CHAIRMAN GREENSPAN. There is coffee out there, so why don't we break for ten minutes.

[Coffee break]

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. The District economy is doing reasonably well, and most indicators of economic activity are positive. Let me summarize that situation quickly, starting with household demand. On balance, auto sales continue to be fairly strong, and tourism is having a good year in the District. Overall consumer spending is growing moderately, aided in part apparently by the return of Canadians to some of the northern border cities—I presume mostly as a result of changes in the exchange rate. Residential construction and related measures like housing sales remain another bright spot; 2003 was a record year in many parts of the District. Most people in the marketplace expect another good year in 2004—perhaps not up to 2003, but quite strong nevertheless.

Manufacturing activity is improving, and the outlook for capital spending is clearly a bright spot. We have the benefit of the survey that was done by the staff, but the most impressive report on the capital spending outlook came from one of our directors who surveyed a

number of large firms in Minnesota. Almost uniformly these firms are planning double-digit increases in capital spending for the current year for a variety of interrelated reasons having to do with capacity expansion, replacement demand, cost reduction initiatives, and so on. That was clearly a much more positive report than we had been getting previously and more optimistic certainly than I would have anticipated, at least until recently. Mining activity has also picked up, and that is mostly taconite mining in northern Minnesota, which probably reflects what is going on in the steel market. The situation in commercial and industrial space is diverging. Absorption of industrial space in the Twin Cities market was quite substantial in 2003—the best absorption in three years or so—but office vacancies remain at an elevated level. I think we are seeing some modest improvement in labor market conditions in the District, and wage gains generally remain in the 3 to 4 percent per year range.

As far as the national economy is concerned, I think the outlook is positive, and I am reasonably optimistic in that regard. My own forecast isn't quite as strong as the Greenbook's; but basically, whether I adhere to mine or I take the Greenbook baseline, I'm pretty comfortable with the outlook. I do think the uncertainty around the forecast has diminished. One issue I would point to that has been talked about by others is the labor market. I remain skeptical that we will see overall employment gains of the size indicated in the Greenbook. There is no doubt, at least in my judgment, that employment will come back and probably come back substantially. But I am a little skeptical that we will achieve employment gains in the next couple of years as large as those anticipated in the Greenbook. Having said that, I don't think that is going to have any profound effects on the way the economy performs because the difference is likely to be made up by productivity. Finally, I think the inflation outlook is benign not because of the gap but because inflation has been low, and I expect it to remain low.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. The weather has been frigid in New England, but the economy may actually be heating up. Anecdotally, many contacts in manufacturing are more upbeat, and our contacts in the retail arena reported a noticeable pickup in business in the fourth quarter. Business confidence in Massachusetts surged in December, and consumers are more confident as well, particularly about future conditions. Even employment trends may be better than we thought. An early assessment of the likely benchmark state employment revision suggests that job losses in early 2003 were greater than previously thought but the latter months of the year saw a greater rebound. Nonetheless, regional employment levels are still below 2002, and the area's unemployment rate held at 5.1 percent in November. Initial unemployment claims rose as well, though help-wanted advertising is picking up.

The increase in business confidence that I noted earlier was accompanied by statements that employers in Massachusetts have abandoned their wait-and-see posture and now believe that a robust economic recovery is under way. However, other contacts are more skeptical about that. The continued ability to increase productivity and the expanded use of outsourcing seem reasons enough for reining in domestic hiring, at least over the near term. Recent contacts with sources in the high-tech world indicate that optimism is spreading there. Big customers are starting to spend money, and the mood of software executives has definitely brightened. I think that is along the lines of what President Parry and President Hoenig mentioned as well. One of our directors is the CEO of a relatively large chip manufacturing company. He reports that worldwide semiconductor manufacturing is increasing on the basis of solid new orders growth and rising profitability. Companies in this industry were waiting for growth to materialize before

committing to new hiring. Now he believes that they are ready to add staff; and in one case, a major firm recently hired 100 workers for its Portland, Maine, facility. That is a start anyway.

I certainly hope that solid employment growth in the nation as a whole will start soon. As I see it, that's the remaining fly in the ointment, if you will, to a recovery that in every other way shows signs of really picking up. I, like others, was disappointed with the December unemployment report. The disappointing numbers may get revised away, but I think there is still a sense of caution—though perhaps it's ebbing—on the part of businesses to both spend and hire. In my view, questions remain about the durability and self-sustaining nature of this expansion, past the fiscal impulse. It is certainly true that consumer spending continues to be buoyant, and we expect it will remain so. Business spending also seems to have picked up and will likely accelerate further given profit levels and incentives that are built into fiscal policy. It's likely that hiring will follow, but I think it will take some time before all lights are green for both spending and hiring.

Speaking of green, the Greenbook forecast continues to anticipate an economy that is about as good as it gets or is likely to get. I don't have any major problems with that forecast. Growth is expected to be strong over the next couple of years, with unemployment lower and inflation a moot issue. Fiscal policy stimulus recedes in the latter half of this year, but the economy is sustained by continued strong consumption, an improving external sector, a declining dollar, and very favorable financial markets. We in Boston, not unlike others around the table, show lower growth projections for 2004 and 2005 than does the Greenbook. But the direction of our numbers is the same as those in the Greenbook, and I don't want to quibble about differences at the margin. The overall message is the same: Productivity is strong; the gap

in resource use narrows; and inflation, if anything, is likely to trend down in the near term, but that trending down isn't worrisome.

What I think could turn out to be a little worrisome and needs to be given some thought are the implications of the extremely accommodative financial markets that we are seeing. For now, very low credit spreads and rising equity markets are not out of line with profits and are one of the key underpinnings to sustaining a solid pace of growth in 2004. What I view as a possible concern is whether these markets have the potential over time to feed into the types of speculative excesses that were so damaging to emerging markets abroad and then to our own economy in the late '90s. It hasn't even been ten years since the first Asian crisis so there is reason to believe that borrowers, lenders, and investors remember the hard lessons they learned and will manage their risks more effectively. But I think it's something to watch. However, what I'm most focused on watching, at least over the near term, is whether we will begin to see the increased level of employment envisioned in the Greenbook forecast or even in our forecast, which is a little lower.

On balance, as I look ahead there seem to be risks on both sides of the projection. If employment picks up as the Greenbook projects, we could see some surprises in reduced productivity and higher inflation. On the other side, the employment growth in the projection remains a forecast, and if doesn't occur soon, it could take longer than we expect to realize any tightening of resources. As Vince put it in the Bluebook, we may be able to be patient for a while; but I think we have to be watchful as well.

CHAIRMAN GREENSPAN. President Broadus.

MR. BROADDUS. Thank you, Mr. Chairman. As in other regions of the country, the Richmond District economy is increasingly signaling a sustained economic expansion, at least as

far as demand and production are concerned. Our sense is that holiday sales were solid. And service-sector companies in our District—there are many, including trucking companies, financial sector firms, and law firms, and we have a lot of law firms—[laughter] are all telling us that their businesses have strengthened most recently.

More important for our region, though, manufacturing activity appears clearly to have bottomed. We still have textile companies and apparel companies in the Carolinas that are hurting, but that's largely the ongoing result of a secular adjustment. Other manufacturing companies in our region, especially high-tech companies but also manufacturing companies producing such things as construction equipment, indicate that they are doing better. New orders at factories have been rising at an increasingly rapid pace in recent months according to the monthly manufacturing survey that we conduct. That survey has an employment component, which in the month of December gave us the first non-negative reading that we've seen in about two years. That may be a sign that the long decline in factory jobs in our region is ending, at least in the aggregate. Related to this, the results of the capital spending survey that we did in response to the Board staff's request were, as in other Districts, much better than those from the previous survey in the summer. I think that in general business decisionmakers are much more confident as to the durability of the expansion than they were earlier.

Finally with regard to the regional economy, despite the evidence of slightly firmer aggregate demand and increased production, we don't see clear signs that our labor markets are firming significantly at this point. This relates to the central issue you were underlining, Cathy, and that we are all grappling with at the national level. However, as I said earlier, I see encouraging evidence that the hemorrhaging in the factory sector may now be ending.

With regard to the national economy, the broad contours of the Greenbook forecast have not changed a lot since December. To summarize what everybody knows, the forecast for real GDP growth is about 5½ percent for this year and 4 percent for next year. The Board staff still anticipates that the employment gap will be eliminated over the forecast period, but not completely until the end of next year. And core consumer inflation is expected to remain at about 1 percent. For me, the really interesting part of the Greenbook forecast discussion—and I suspect this is true for a lot of other people around the table—lies below the headline growth and inflation projections. Namely, the substantial increase in estimated structural productivity growth in 2002 and 2003 is expected to continue this year and next. The Greenbook now concludes that much more of the recent productivity surge is permanent than was thought to be the case before.

I find this reassessment of broad productivity growth very interesting. I have been worried for a while that the productivity surge may be longer lasting than had been assumed in earlier staff forecasts. The key point here, of course, is that this development certainly has the potential to move the employment gap in the wrong direction. That is, it could widen the gap or at least keep it from closing as rapidly as we would like to see. I think that risk is nicely summarized by the alternative scenario in the Greenbook that is labeled “temporarily faster productivity growth.” In fact, I thought the two alternative scenarios on productivity growth were very helpful, but the temporarily faster productivity alternative is the one that I would focus on here. It describes how the public may perceive the productivity gains as a one-time increase in the level of productivity rather than a sustained rise in productivity growth going forward. In the case of a one-time level increase, the public would not feel much wealthier, and aggregate demand would potentially fall short of the increase in aggregate supply resulting from the higher

productivity growth. In that scenario, the output and employment gaps would widen rather than close, and inflation conceivably could fall further.

In this regard, I think it is worth underlining that, in this Greenbook forecast, the trend in the output gap stays fairly constant compared with the last Greenbook despite the significant increase in productivity. The reason, of course, is that the forecast assumes that the trend in labor force growth slows by about as much as the trend in productivity growth increases, with the result that the path of potential output is not changed. My concern here is that extrapolating the recent weakness in labor force growth forward may be a mistake. In fact, Part 2 of the Greenbook presents evidence that more workers may be discouraged by poor hiring prospects now than has been the case historically. I don't know if the Greenbook mentioned this, but immigrant domestic workers could be discouraged in this situation. And the result could be that the overall U.S. workforce is now more cyclically sensitive than earlier, meaning that trend labor force growth may not decline, in contrast to the Greenbook assumption. In this situation, workforce growth would likely pick up strongly as employment growth begins to pick up. This means that it would take longer to absorb the labor market slack than the Greenbook projects. In that case, the risk of further disinflation would be greater than the Greenbook discussion might suggest, and that of course is where I was going with all of this.

My bottom-line concern, for the reasons I have just summarized—and I'm back to where I started—is this: Even though the real growth and inflation projections in the baseline forecast have not changed a lot since the December meeting, I think a good case could be made that the risk of further disinflation is greater in the current forecast than in the previous one. I'm not going to conclude from that assessment that we should ease policy, but this would be a basis for me to want to resist changing policy in the other direction. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. By most measures, economic conditions in the Fourth District are improving. Households have continued to purchase new and existing homes, automobiles, and light trucks at a solid pace. Bankers in the District are reporting that credit quality in their consumer loan portfolios has been very good. A notable development during the intermeeting period has been the improvement in sentiment regarding capital spending. Whereas several months ago it was common for me to hear from most CEOs that they were not going to invest significantly in new equipment for a “considerable period” of time, [laughter] many business leaders now say that they are willing to do so. This improvement in attitude seems to be due both to a change in mind and to a change in heart. The change in mind comes from a better capital spending arithmetic. Many CEOs are now convinced that demand for their products will remain strong. Moreover, corporate earnings have been excellent, and investors have flocked back to the equity markets. The change in heart seems to stem from the appearance of more stability in the international situation. The paralyzing uncertainty that had been in place has been replaced by more informed risk-taking. CEOs are beginning to act as though we are in an expansion, and they are again beginning to make decisions, especially investment decisions, with more confidence.

Nevertheless, the contrast in business attitudes between capital spending and hiring plans remains striking. My business contacts remain adamant about not expanding worker head counts except as a last recourse. A CFO from a large national retailer told me that she and the company president must approve any net addition to employment anywhere in the company. At the same time, though, while some CEOs express a grudging reluctance to hire, I am beginning to hear from a number of bankers that they are having difficulty finding qualified workers to hire. We

are experiencing our own problems in that regard in the District. We are having a difficult time finding qualified bank examiners to hire and a difficult time in our Cincinnati marketplace trying to find employees for some expanded check-processing operations that we are doing there. So labor market patterns are puzzling. The data suggest to me that something unusual is happening both on the supply side as well as the demand side so it is hard to get a handle, as many others have said, about the degree of slack in the labor markets. I think the staff's decision to lower employment growth in 2004 from its previous projection is a sensible adjustment.

What has surprised me most in the District during the past several weeks has been talk about prices increasing for certain products despite the low inflation rate of which we are all aware. I don't want to make much of this. It's just that I haven't heard the topic of price increases mentioned in quite a while. Commodity prices, both energy and non-energy related, have been increasing for some time. Some manufacturers are now quietly looking for opportunities to pass on price increases in their products. Steel producers have gone from famine to feast. They are enjoying a strong global demand after a period of industrial consolidation. With the strengthening in demand, steel prices have been rising sharply and obviously without the protection of tariffs. Price increases for raw materials and industrial commodities have not found their way into retail prices in any broad-based way. Indeed, we discussed the looseness of the relationship between commodity and consumer prices at the last meeting. In addition, I know that many manufacturers expect that the dollar's depreciation will provide them with some leverage in a strengthening global economy even though, again, the empirical evidence of that happening is questionable. After all, retail price inflation is still slipping rather than rising, but perhaps the mere fact that there is any discussion about price increases is simply another sign that business persons have regained their confidence in the outlook.

As I think about the national outlook, I realize that, despite my confidence in the prospects for the expansion, I have little confidence in forecasts of the future course of inflation. The output gap and our estimates of the natural rate of interest provide us only rough guidelines in the best of circumstances. Unfortunately, today we have the challenge of trying to decipher inconsistent evidence regarding labor market tightness, accounting for the possibility that some of our measured capital stock is obsolete, and attempting to estimate the underlying rate of growth in structural productivity. My best guess is that we have passed through the point of concern about unwelcome disinflation and are entering a period where the odds favor greater inflation stability. Given that, I believe we should proceed with the strategy that you laid out at our December meeting, Mr. Chairman. Thank you.

CHAIRMAN GREENSPAN. Governor Kohn

MR. KOHN. Thank you, Mr. Chairman. Once again I'm an outlier in terms of my projection of the strength in GDP growth for this year, as I can see from the charts we looked at this morning. I want to note, however, that someone else is even more ebullient than I am, but that person has not yet "fessed up." [Laughter] For me, the lesson of the second half of last year was confirmation of the strong response of the economy to fiscal and monetary stimulus once the restraint of falling equity prices, capital overhangs, business caution, and geopolitical risks had faded. In fact, the response was stronger and quicker than I anticipated. Consequently, for next year I expect the fallback from the 6 percent plus growth of the last half of 2003 to be limited.

Fiscal stimulus ebbs fairly gradually as we saw on a chart this morning. Household spending held up better than expected at year-end despite weak labor markets, suggesting that its earlier strength was based on more than just rebate checks and newly liquefied home equity. Low interest rates, rising wealth, and increasing confidence about the future surely played

important roles, and these factors will continue to boost spending. Indeed, financial conditions have become even more stimulative over the last several months, and that will have its effect this year. Since September of last year, equity prices have risen 14 percent, rates on corporate bonds have fallen as much as 1 percentage point or more, and the dollar has depreciated nearly 5 percent on the broad index. The largest declines in bond rates were on the riskiest issues, and the growing willingness to take risks in capital markets is echoed in increasing optimism about future profits and sales by businesses more generally—a development certainly witnessed by many of the reports we heard this morning. Lower costs of capital and growing confidence should interact with accelerating output, strong profits and cash flow, and the need to make up for previously postponed replacement spending to support considerable ongoing strength in business capital expenditures. In effect, we are beginning to see greater feed-through of strong productivity growth to spending both by households responding to rising equity prices and by businesses reacting to profit opportunities in new investment.

Given financial conditions, fiscal policy, growing confidence, and strong growth in productivity, real GDP growth of 5 percent or more is not a stretch at all. It is well within the normal response pattern, and this suggests to me that there are upside as well as downside risks to such a strong forecast. In a sense, though, the growth forecast isn't all that interesting. I agree with President Broaddus that the interesting and more difficult questions are on the supply side of the economy. How fast will potential grow, how will it interact with demand, and what are the implications for the output gap and inflation? The staff has a favorable story here. Strong underlying productivity boosts actual and expected profits, equity prices, and anticipated income streams, raising demand. But actual productivity growth slows some, so strong demand shows through to a closing output gap. At the same time, compensation growth remains moderate,

labor's share of income remains fairly low, and workers only begin to catch up with the higher underlying productivity growth. As a result, the slowing growth of actual productivity doesn't raise unit labor costs very much, and it keeps core inflation at recent levels.

This seems a reasonable projection, taking account of the surprising behavior of productivity and labor costs in recent years, but there are considerable uncertainties around this most likely outcome and appreciable skews to the probability. For one, the staff did not allow the higher trend productivity of recent years to show through to a larger output gap, and Sandy gave some good reasons for this. But we did see more disinflation than expected last year, and while special factors contributed, price behavior could point to a greater probability that the gap is larger and not smaller than the staff's estimate. Moreover, the staff has interpreted some of the recent productivity gains as pushing the level of productivity above its trend, and this gap disappears once business confidence rebounds further. But given the uncertainty about the origins of the astounding productivity gains in recent quarters, there would seem to be a good chance that they won't be reversed. So, actual labor productivity might not slow as much as in the Greenbook forecast, keeping unit labor costs on a lower trajectory.

Other risks point to the potential for greater price pressures. Compensation could accelerate more as labor markets tighten, allowing higher productivity to pass through to labor more quickly. Productivity advances could begin to show through more forcibly into demand, in effect raising the natural interest rate more quickly than in the staff's forecast. At this point, however, since we have experienced repeated productivity surprises and insufficient demand to tighten labor markets, while some measures of wage gains continue to trend down, I judge the risk on inflation arising from the supply side of the economy still to be tilted toward the downside.

These uncertainties and skews have implications for policy strategy. Given the lags in compensation behind productivity, this most recent productivity surprise bears a resemblance to the mid-1990s. Then we took some of the temporarily favorable output–inflation tradeoff resulting from the productivity surprise in output—the unemployment rate fell to 4 percent—and some in lower inflation, as core PCE fell from 2½ percent in 1994 to 1½ percent in 1997. At this time, with the core inflation rate in the neighborhood of 1 percent, it would be important to take as much as possible of the productivity surprise in output, not in lower inflation. So in my view, the supply-side uncertainties, together with the skews in those uncertainties pointing toward a higher probability of inflation coming in below expectations, reinforce the rationale for being very, very cautious in moving off our current highly accommodative policy stance. This is a subject I assume we will come back to in the next part of the meeting. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. Developments in the Second District seem to be tracking those in the nation as a whole. We are strong where the national economy is strong. The Empire survey shows very high levels of business confidence, orders, shipments, and most things we measure, but the slope of the increase has flattened. Employment is still soft, perhaps a bit softer than it has been nationally. In our neighborhood, however, inflation seems to be running somewhat ahead of the national numbers, and our survey shows further increases in prices received and paid as well as higher expectations for both six months out.

Developments in the national economy since our last meeting support growing comfort in the outlook. The expansion seems more broad-based, with strength continuing in household

spending and housing, and capital spending growing at reasonably rapid rates. Exports are performing well, consumer and business confidence are at quite high levels, and business caution has receded. The increased confidence in the sustainability of the expansion seems justified. Although we have a somewhat softer outlook for growth than the central tendency of the forecasts around this table, we share the general expectation that the payroll number should begin to show more rapid growth. The fall in claims, increasing part-time employment, and surveys of enterprise plans support this view. With demand growth strong, it would be surprising if we did not see more-rapid growth in hiring. Inflation, of course, is still very low. It is hard to find evidence yet of a change to the trajectory of a gradual downward drift in the rate of increase in core inflation.

Looking outside the United States, demand looks stronger and the news is generally encouraging. Still, the major economies are growing at rates substantially short of the U.S. pace. Policy in Europe and Japan may be getting better, but it doesn't look too impressive when judged against the scale of the structural challenges. Fundamentals in emerging-market economies have improved, although perhaps not to the extent implied by the very low spreads to Treasuries. The broad consensus in favor of open trade policies seems more fragile these days despite the strength and breadth of the global recovery.

Overall, we believe that the U.S. economy is likely to continue to expand at a pace somewhat above our estimate of potential growth and will do so for the next several quarters. We believe that the range of uncertainty around this outlook has narrowed, but the probability of a stronger outcome may now exceed that of a weaker outcome, and this is a good thing. We expect inflation to stay low. There is some chance that inflation will decelerate further in the near term, but we can afford to be less worried about this risk given the apparent strength in

demand. We now face a rising, if still small, probability that inflation will find its floor and begin to move modestly higher. The critical question, of course, is whether this will happen even if the apparent slack in the economy is absorbed only gradually.

This is a reasonably encouraging outlook, but it is probably healthy to acknowledge the sources of uncertainty and risk. The sources of uncertainty and risk are not new, but they are compelling still. The apparent strength of productivity growth supports the view that the microeconomic fundamentals of the U.S. economy are exceptionally strong relative both to its recent path and to the performance of other major economies. There is a lot, though, that we do not know about these dynamics and what they mean for employment and inflation, given our forecast for growth, and what in turn the implications of these dynamics are and how soon it will be appropriate for us to adjust policy. Caution here argues for giving ourselves more flexibility than our statement now provides, with a possibility that we may need to move sooner than we had thought and than the market now expects.

The scale of the broader imbalances in the economy—the low level of private savings, the substantial deterioration of the structural fiscal position, and the size of the external imbalance—remains a source of considerable risk. Even if the long-run sustainable level of U.S. growth is higher than conventionally thought, the factors necessary to bring these imbalances down to more comfortable levels are not now in place, and they do not appear to be in prospect. The fact that the dollar decline has been so benign should not be too reassuring, given the forces at work to slow it and to support official foreign demand for U.S. fixed-income assets and given the extent of the further adjustment in the dollar that may still be required. These risks don't alter the balance for monetary policy now, but they may suggest that we need to be more

attentive to the downside of giving the markets too much confidence that policy will remain on hold indefinitely.

And finally, of course, financial conditions are now very accommodative. Asset markets, credit spreads, risk premiums, and measures of volatility have all moved a long way toward a very benign view of the world. These factors make the fundamentals look better than they probably are. They make us more vulnerable to the buildup of distortions in financial markets that can only be unwound with some drama. They amplify the force provided by our already exceptionally accommodative policy stance. This merits attention, and at the margin it probably also reinforces the case for recalibrating our signal a bit to position us more comfortably to deal with the possibility that we may see a case for moving policy before the end of the year. This is not a call to arms or a call to action. This is meant just to be a case—to borrow yesterday's formulation—for a gentle, gradual evolution [laughter] in how we frame the forward-looking signal in our statement. Thank you.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. President Broaddus used the term “bottoming out,” and I think that expression also applies to the two issues that I want to discuss—fiscal policy and the banking system. First, with respect to fiscal policy, you undoubtedly know that the omnibus spending bill passed the Senate last week and was signed by the President. This means that the government is no longer being funded on a continuing resolution. You may or may not have noticed, because it got lost in the reports of the victory of John Kerry in the Iowa caucus, that the closure vote in the Senate to bring the bill to the floor failed the first time around. It received fewer votes than there are Republican members of the caucus, which a lot of people took to be a signal that many Senators have reached a point where they recognize the need for some discipline in the

government spending process. The short-term result of the spending bill is that it will provide a whole lot of stimulus for 2004 but in ways that most of us would not approve. The bill included somewhere between 8,000 and 10,000 separate earmarks, which we used to call “pork.” It does seem, though, that in a response to the last spending effort, both Republicans and Democrats see the need to go back to a budget process that will impose some discipline. The future reductions in deficits that are being discussed are more consistent with what we have in our Greenbook.

With respect to the banking system, “bottoming out” has a much more positive connotation. As has been reported, the quality of assets in the banking industry has reached the point that there is an expectation that it could go down. Nevertheless, my discussions with bankers this past week differed from many of my conversations in other recent weeks. Instead of talking about loan losses, they are now talking about watch lists. What that means is that, rather than being corrective in terms of their approach to bad loans, they are now being preventive, which would suggest that the economy is now probably bottoming out. That is important for a couple of reasons. Despite the improvement in bank profits, we see that interest income margins continue to decline and are at their lowest level in many years. What bankers are telling me is that low margins are putting great pressure on lenders to increase loan volume. Now, because the consumer loan side has stayed strong, the only opportunity for significant growth is in the C&I loan component. What I’m hearing now is that there is a lot more loan demand and tremendous competition among bankers for loans. It seems to me that bankers are willing to take on more risk than I have heard them admit to in recent years. This includes both credit risks and interest rate risks, with a lot of bank financing involving commercial real estate ventures. So we may be at a point where in 2004 there will be many lenders competing for a relatively small number of loans, a conclusion that is supported by the financing gap of nonfinancial businesses

as described in the Greenbook and anecdotally. One of the bankers I spoke with told me that they use the demand deposits of their commercial customers as an additional benchmark for forecasting loan volume. The low level of such deposits suggests that the need for bank financing of business capital expenditures is going to be very limited. This conclusion is also supported by the chart that Larry Slifman showed us earlier today, which indicated that debt–asset ratios, both short term and total, are at a record low.

In summary, I conclude that we will have a lot of stimulus stemming from the federal budget process but perhaps more fiscal discipline going forward. From the bankers' side, we have significant indications of more interest in capital spending by business firms. Unfortunately for the bankers, most of it will be financed internally or outside the banking system.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. We seem to be entering phase 2 of the fight against the downturn. Phase 1 involved bringing in all the fire trucks—fiscal expansion, monetary accommodation, and language such as “considerable period.” The fire is out now, the economy is growing at a healthy rate, and the pattern of vigorous growth is spreading throughout the economy. Earlier, most of the strength involved household and government spending; now the strength has broadened to investment and exports. It is not inevitable but fortunate that inflation has stayed very low in this expansion, and it is still bumping along the bottom edge of our target range and pointing down in its most recent numbers. On the other side, we are just beginning to hear talk of new asset bubbles such as we discussed previously. In these circumstances, to bring this all together I personally think it is time for policy to start pulling back the fire trucks gradually. For monetary policy, we should start unwinding our rhetoric by moving toward a more flexible set of words. We can deal with interest rates later on.

Fiscal policy should do likewise. Now, I'm talking here about the general fiscal outlook. Larry Slifman discussed a chart earlier today that shows one period of sharp decline in fiscal impetus, but in general the trend is for a series of large deficits. Making the Administration's preferred assumption that the tax cuts will be extended, the CBO declared two days ago that the outlook is for a \$300 billion yearly deficit as far as the eye can see. A former colleague, Alice Rivlin, is convening a Brookings conference that has the deficits rising to twice that level. These numbers are much too large, and we should gradually be removing the fiscal fire trucks as well. Not doing so will drain funds from capital formation, waste tax revenues on excessive interest costs, and put the country in poor shape to deal with the upcoming retirement crunch stemming from aging baby boomers.

There is an interesting, if difficult to understand, impact on the foreign side. Under the normal Mundell–Fleming model, gradual fiscal tightening should lower the dollar and lead to a gradual reduction in our current account deficit. Part of that has actually happened. There has been a dollar reduction that according to the Greenbook has resulted in a current account deficit that is smaller by a percentage point of GDP than it would otherwise have been. But the current account deficit is still very large—5 percent of GDP through the Greenbook horizon and possibly even larger beyond that horizon. The net external debt implied by all of this—it was zero as late as 1985—is 25 percent of GDP right now, and it could easily be as high as 40 percent of GDP in three years. We are putting a lot of dollar instruments on the international markets, and it's reasonable to ask who is going to hold them all. So far, the Asian central banks have been huge buyers and are now holding more than a trillion dollars of foreign exchange reserves, largely in dollar form. They seem to be motivated more by the desire to keep their exports competitive than by traditional rate-of-return considerations. As other currencies bear the brunt of the

adjustment, it is not impossible that this kind of behavior will spread to other central banks. Suppose many of the world central banks gang up to support the dollar. Can they pull it off? I don't know. We know that it is physically impossible for central banks to intervene indefinitely to support their own currencies, but they may be able to keep printing money to support some other currency. The question is whether they will exhaust their ability to sterilize these interventions and whether this monetary expansion ultimately will lead to rapid inflation.

We're into the realm of unfamiliar economics, a realm that we have visited often since I've been on the Board. [Laughter] Is such intervention desirable? To me the answer is clearly "no." If the support just goes on for a finite period, the central banks are overriding the normal exchange rate adjustment process. The current account deficit remains too high, too much external U.S. debt is being created, and inevitable adjustments only become more difficult down the road. The world economy would be better off with small and gradual adjustments now. In the limiting case, where the support goes on forever, one must be less definitive; but as I just said, I seriously question whether this limiting case is possible. Politicians have an old saw called the law of holes, which says that, when in a hole, the first thing to do is to stop digging. I think the world macroeconomy would be a safer place if the economic authorities around the globe would follow this rule. The United States should be gradually tightening its fiscal policy. Foreign central banks should get out of the business of export promotion, finding domestic ways to stimulate their economies if necessary. The Fed can, and I trust will, pull back its fire truck; but now is the time to pull back all the fire trucks.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you very much, Mr. Chairman. The incoming data, as almost everyone has noted, appear to validate the confidence that emerged at the last meeting that a

sustainable expansion seems most likely to be under way. Almost all components of domestic final demand seem to be on a relatively firm footing. Household consumption is clearly benefiting from stimulative policies and the effects of rising stock market and housing wealth as well as improved consumer confidence. Residential real estate investment also is on a solid footing, with recent declines in mortgage rates most likely to support a strong housing market for some time to come. Importantly, the expansion seems to have broadened out, as others have indicated. In the business sector, incoming data on new orders and shipments, when combined with survey and anecdotal data, do suggest that businesses are likely to increase their investment in a widening range of capital goods as opposed to retrenching. Finally, the firming that is under way domestically also appears to be occurring overseas.

Of course, this good news must be tempered by a clear understanding that firms are not yet creating jobs as quickly as we would like. However, even in the labor markets there are a few positive signs. Aggregate hours rose in the fourth quarter as a whole, which I think was the first quarterly increase since 2000. The unemployment rate has declined, and initial claims also seem to be shifting downward. The other small fly in the ointment is that core prices seem to have drifted somewhat lower during the intermeeting period, I believe in large part because of strong productivity growth—a theme to which I will return shortly. Given my reading of these incoming data, I think I can accept the contours of the baseline forecast in the Greenbook, which for me implies the desirability of ongoing patience with the current stance of monetary policy.

However, even against that benign outlook, there are a couple of risks that confront us, and I must say that they are in some sense inconsistent. On one hand, I have some concerns that the baseline Greenbook forecast has assumed a fairly large drop in the growth rate of structural labor productivity for 2004 and 2005 from its estimated level in 2003. I fully agree that

productivity growth cannot pick up indefinitely. Trees don't grow to the sky, as they say. However, if the rate of change in structural productivity were to come closer to maintaining its 2003 level instead of falling as in the baseline forecast, the outcome would be better captured by one of the two faster productivity growth scenarios in the Greenbook. Both call for somewhat lower inflation. I think that echoes the point that President Broaddus has already touched on and that we in fact discussed earlier today in the question and answer session right after President Minehan's question. Now, it's obviously very hard to know exactly what is going to happen to productivity, as the answers that Dave Stockton gave indicate. But if one looks at the special survey of Beige Book contacts that many have referred to, it's quite clear that one of the major factors behind the capital goods spending plans for this year is the desire to replace either IT or other capital goods. Therefore, businesses will again have the possibility of capturing some efficiency-enhancing improvements that come with the technological capabilities embedded in some newer generations of equipment. If they do so, we may well find that productivity growth is stronger than in the baseline forecast; and against the backdrop of inflation, which is already at the low end of the range that I find acceptable, that clearly calls for some important discussion about what our policy should be.

On the other hand, I have another kind of concern, which has to do with the state of financial markets. During the intermeeting period, we saw quite a run-up in the prices of equities, as businesses proved that they indeed have a great deal of earning power if not much pricing power. Nonetheless, during that same period, interest rates dropped quite significantly. Risk spreads have come down, which is a good thing as Governor Kohn suggested but also may indicate an underappreciation of the risks that may be embedded. Frankly, to put it mildly, I think that the dollar carry trade has become extremely well entrenched and that the markets are

looking to us perhaps more than they should be. One small piece of evidence in this regard is that the flows of the funds and the behavior of multifamily investments strike me as being somewhat out of touch with the fundamentals. This suggests to me that perhaps we are anchoring the yield curve more than we'd like, and in my mind we need to try to do two things simultaneously. One is to suggest that inflation risks, while they have receded from corrosive disinflation or deflation, still tend to be tilted a bit to the downside. The other is to suggest that markets should be looking at and calibrating more fully the incoming data and the underlying risks to the economy. I'm afraid that at this stage, given the high productivity possibilities, the fixed-income markets in particular are not in fact doing the appropriate job of pricing risks. We need in some sense to remove the anchor that we have placed on those markets. With that, Mr. Chairman, I'll stop and look forward to the second half of our discussion.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. As I suggested yesterday, my guess about future economic conditions is very close to the Board staff's forecast. I'm just a little more optimistic than they are on real growth and unemployment. So, Don, I may be your guy! [Laughter] The economy appears to be in the sweet spot of strong growth combined with very low inflation. It would be even sweeter if it were accompanied by rapidly falling unemployment. I believe that we are going to get a decline in unemployment soon, as does the Greenbook. But like Cathy, I'll feel better about it when I start seeing it. The productivity improvements in manufacturing seem to be spreading to the wholesale and retail trade sectors, where information technology advances have improved the economies of scale in retailing, leading to below-par hiring in that sector. I'm a lagging indicator when it comes to using new technology, but I recently got up enough nerve to use the self checkout counter at the supermarket. [Laughter] It was very scary. The bar code

was a tremendous productivity enhancer, and now we have the bar code without the employee—with the customer using the bar code. I understand that Wal-Mart is pushing technology that is going to make the bar code obsolete, which will be even more of a miracle. I think that, in addition to technology, freer trade and outsourcing are also contributing to faster productivity growth.

Turning to the Eleventh District, I can say with a lot more conviction than I did at our last meeting that the Texas economy is well on its way to recovery. On the basis of revised and more-complete data, we feel more confident that our economy has entered a sustained period of growth. And it now appears that our employment growth slightly outpaced the average in the nation rather than coming in slightly behind it, as we had thought recently. The improved performance is occurring across a widening range of sectors. Since the middle of 2003, construction activity has been contributing to the District's recovery. Single-family building permits and residential contract values took off in mid-2003 and remain at record levels. The Mexican economy seems to be doing a little better, too, which is helping our District. Domestic drilling has not responded much to higher oil and natural gas prices, so we haven't gotten a boost there. But gas drilling activity is anticipated to pick up this year. Output has stabilized in Texas manufacturing. The Texas leading index continues to indicate improved growth in the months ahead. Broadly speaking, the District's recovery is under way on a par with the Greenbook outlook for the nation.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. I find it amusing that yesterday everyone denied being in the forecasting business and today there is a round of forecasts. [Laughter]

MR. MCTEER. You heard me refer to mine as a guess.

MR. BERNANKE. Seventeen forecasts and one guess! One of the key issues in the forecast, of course, is the role of the output gap, and I have a few comments to make about that topic. The use of the output gap or the Phillips curve relationship in forecasting inflation was a subject at our two-day meeting in June 2002. At that meeting, Art Rolnick of the Minneapolis Fed presented research by Andrew Atkeson and Lee Ohanian suggesting that output gap measures were no better forecasters of inflation than a simple random walk assumption that inflation next year will equal inflation this year. In particular, Atkeson and Ohanian showed that the Greenbook forecast of inflation, which makes heavy use of the output gap concept, did no better than the random walk model for the period 1984 to 1996.

Given our current reliance on the output gap concept for projecting inflation, I thought it would be worthwhile to revisit this discussion briefly. In particular, I would like to call your attention to recent work by staff members at the Board and at the Federal Reserve Bank of Boston. Work by Board staff member Deb Lindner summarized in a memo last summer, which I'm sure she'd be glad to make available, confirms the results regarding the accuracy of Greenbook forecasts for the period 1984 to 1996 for inflation measured by the GDP deflator. However, she also shows that the Atkeson–Ohanian results regarding the accuracy of Greenbook forecasts are highly fragile on a number of dimensions, notably with respect to the sample period employed and the measure of inflation used. Using the GDP deflator to measure inflation and using real time data only, Lindner shows that when the Atkeson–Ohanian sample period is extended back to 1980, the Greenbook forecasts are 40 percent better in terms of root mean squared errors than the random walk alternative. In the more recent 1997-2002 period—for which we, of course, have the Greenbook data but they are not yet publicly available—Greenbook forecasts of GDP deflator inflation are 35 percent better than the random walk

benchmark. Lindner shows that the results are more dramatic still when inflation is measured by the core CPI rather than by the GDP deflator. Even for the Atkeson–Ohanian sample period, 1984 to 1996, Greenbook forecasts for core CPI inflation are 24 percent better than the random walk alternative. For the recent period, 1997-2002, real-time Greenbook forecasts of core CPI inflation are a full 61 percent better than the random walk. These results are consistent with those of several published papers, including a well-known paper by Christina and David Romer that showed that the Greenbook forecasts of inflation have outperformed private-sector forecasts.

The other recent study to which I'd like to call your attention is an article by Boston Fed economists Michelle Barnes and Giovanni Olivei in the most recent *New England Economic Review*. Barnes and Olivei estimate a piecewise (linear) Phillips curve that allows the effect of the output gap on inflation to vary depending on how far away the economy is from potential. They find little relationship between unemployment and inflation in a region close to full employment but a robust relationship when the unemployment rate is relatively far—which they define as 1.4 percentage points—away from the natural rate. Barnes and Olivei propose economic interpretations of this finding, but I would suggest a measurement-error interpretation. Because our measures of the NAIRU are necessarily quite noisy, when the output gap is small, the measurement noise dominates the signal. Only when the measured output gap is relatively large can we be reasonably sure that an actual output gap exists and, therefore, that inflation will respond.

These results, by the way, are consistent with my own informal investigations of the predictive power of the Phillips curve. For the period from 1960 to the present, I find that a very simple Phillips curve specification does not out-predict the random walk out of sample except at times when unemployment is at least 1 percentage point above its average for the previous six

years. In short, output-gap-based forecasts of inflation are probably the most reliable during periods of recession. And indeed, inflation behaved as the output gap theory would suggest in 2002 and 2003. Looking forward to 2004, the unemployment rate is now less than 1 percentage point away from the estimated value of the NAIRU and from its recent average. While a continuing output gap may induce some further disinflation, from a statistical point of view the random walk model may now be just as good. That is, following President Stern, a good guess is that inflation in 2004 will be the same as in 2003.

With your permission, I'd like to add one thought on the "considerable period" language that we'll be discussing later. A good rule of thumb is to try to look as if you know what you're doing even if you're not entirely sure. We properly emphasized that "considerable period" refers to economic time, not calendar time, and we made our commitment explicitly conditional on low inflation and resource slack. We can debate whether or not the intermeeting data, including the December jobs report and very low inflation numbers, suggest improvement on those two dimensions. However, the bond markets clearly believe that they do not, as yields have fallen significantly and the expected date of Fed tightening has been pushed further into the future. Hence, as our conditionality is not perceived to have been satisfied, we have no fig leaf for dropping the "considerable period" language today. I would rather wait until March and the presumption that we will see at least one good payroll number by then. In short, I'm looking now more at long-term credibility issues rather than short-term flexibility and tactical issues. Of course, if we don't see a strong payroll number by March, then we might be glad that we didn't drop the language. Thank you.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. My comments coming at the end of our go-around are going to be repetitive of some of the views expressed earlier. So let me just summarize my views. First, I agree with many of the comments around the table that this recovery has moved into a new phase. We've moved from the stage of the business cycle where the economy was driven mainly by the consumer to one where business is now doing its share in fostering the expansion. Having more-balanced growth going forward gives me much more confidence that this recovery has legs, and I want to focus my comments on the business side today.

We all know that this was a unique kind of cycle because it was driven more by the business side than the consumer side. While consumer spending continued to grow through the whole recession, business fixed investment and inventory investment both fell and were the major engines for the slowdown that we saw. On the inventory side, we have now gone from a period, including the first three quarters of 2003, of falling inventories to a period where we expect inventories to have grown in the fourth quarter of last year and our forecast has strong inventory growth going forward. We're beginning to see in surveys that businesses are becoming more comfortable with inventory levels. Now, I fully expect that inventory-sales ratios will continue to push the envelope lower, as business firms continue to improve the procurement and management of their resources. But I think businesses are beginning to express some confidence that sales levels are sustainable and companies are at least beginning to increase inventories to support the level of sales that they see coming.

On the capital spending side, equipment and software expenditures also have turned around in this last period. Again, in the early part of this recession, we saw consumer spending outpacing equipment and software spending. But in the second half of 2003, we began to see a

pickup in the pace of the latter. There was some growth in that sector in the second half of 2002, but it really wasn't until after the Iraqi war that we saw some force in its expansion. And as the survey that accompanied the Beige Book showed—and other surveys reinforce this—businesses now are beginning to plan for increased equipment spending in the coming year.

The other side of the business investment picture that is particularly strong is the business debt picture. While households have not done a whole lot to mend their balance sheets and they continue to run high debt levels, businesses clearly have made substantial progress. The flow of funds data show with regard to the financing gap in the last two quarters that cash flow due to strong profitability more than covers the capital expenditures that businesses have undertaken. This should provide further legs to support the business fixed investment that would keep this recovery on more balanced ground. So again, I think financial conditions give us strong hope.

As many other members have pointed out, the one part of this balanced recovery that is stretching our ability to understand is the employment story because the data are giving mixed signals. While the payroll numbers continue to show very disappointing results in light of how fast and how durable spending has been, I believe that it's due to productivity and that we are in the early stages of improving business confidence that will bring people back to work. But I also am looking a little more at other indications of improving employment conditions, namely some of the data that come from other sources, particularly self-employed income. Over the last year, the incomes of people who are self-employed have grown by 50 percent more than the growth in overall personal income. It may not be so much a formal business expansion as this self-employment income that is creating multiple legs for the recovery and showing up in the household but not the establishment survey.

The profitability of major businesses could be forcing up nonfarm proprietors' income for the same reasons, or it could be that more people—either out of necessity because they've been laid off in corporate restructurings or because of lifestyle choices—are choosing to be self-employed. So, we may have a different type of labor force going forward. I think we'll have to wait for more data to see what the end result is going to be. Either way, I think this shows that small businesses tend to lead employment growth.

CHAIRMAN GREENSPAN. Vincent, you're on.

MR. REINHART.⁶ Thank you, Mr. Chairman. I'll be referring to the material that Carol Low is handing out. There is a Zen koan—which is a meditation riddle spelled K-O-A-N, not a relative of the Governor—that holds that the most difficult act of all is to do nothing well. This sentiment seems to apply to today's meeting.

As can be seen in the top right panel of your first exhibit, market participants have scaled back the path expected for the federal funds rate as much as ½ percentage point in 2005, with the nominal funds rate seen opening 2006 at 3 percent. This path of the expected funds rate is consistent with a probabilistic assessment that the median expected date of the start of tightening, seen as the peak of the dashed line at the right, rose from around five months to about ten months, the solid line. As judged by options on money market futures (shown in the middle left by the red bars plotting the implied probability distribution that prevailed yesterday), investors are somewhat surer that the funds rate will trade around 1 percent six months hence than they were at the time of the December meeting (the dashed line). While considerable weight is placed on the possibility that policy will firm, some weight—and more than at the last meeting—is placed on policy easing. In the latest survey of primary dealers conducted by the Desk, the greatest number of respondents judged—as shown at the middle right—that the onset of tightening would take place in the second half of this year, although a sizable portion thought it would come sooner or later than that.

As to the specifics of the statement to be released this afternoon, as shown in the bottom left panel just one primary dealer foresees a change in the assessment of output risks, and only a couple more view the risks to inflation as anything but balanced. In that regard, I would not view that consensus on balanced inflation risks as a change in your assessment. While the Committee's last statement indicated a balance slightly skewed toward lower rather than higher inflation, market participants mostly interpreted this as "balanced." Thus, the four respondents calling for "downside" risks are more likely predicting that you will scale back the current setting toward odds favoring disinflation. The staff has interpreted a goodly portion of the rally in financial markets over the intermeeting period as resulting from a

⁶ The materials used by Mr. Reinhart are appended to this transcript (appendix 6).

downward shift in market expectations toward our assumption that policy tightening will not take place until next year. That there remains considerable mass on the possibility of earlier tightening embedded in financial market prices implies that there is a potential for the rally to be extended as expectations correct more to the Greenbook baseline. Why market participants might still expect earlier and more-significant firming is evident in the bottom right panel: A survey of economists at eight dealers indicates that their outlook for inflation is decidedly less subdued than the staff's, even with a growth forecast that is less robust than the staff's. A distinct possibility is that many in the market have a gloomier view of the prospects for the growth of aggregate supply, a point that came out in the exchange between President Poole and Dave Stockton.

One of the more interesting market developments over the intermeeting period was the further decline in yields on Treasury indexed debt, seen in the top left panel of your second exhibit as the shift from the dotted to the solid line. The real yield curve remains steeply upward sloped, but this has prevailed because both short- and longer-term yields, shown in the top right panel, have moved lower. These movements have two implications relevant for setting policy. For one, the low level of longer-term TIPS yields may signal that real rates need to be very low to encourage private spending, suggesting that forces of restraint still loom large, including an equity premium on the high side of historical experience and a desire on the part of households to raise the saving rate to something more in line with historical norms. If the Committee puts much weight on such possibilities, it might be inclined to ease policy, or at least to project a willingness to do so, as is the subject of the middle left panel. In particular, a sense on your part that business confidence would remain impaired might lead you to seek a policy offset. While the anecdotes about spending are encouraging, firms have yet to put their money where their mouths are when it comes to new hiring or additions to inventory stocks. The recent sluggish performance of the monetary and credit aggregates, shown in the table at the bottom left, may raise your discomfort level on that score. Another possibility is that we are seeing additional once-off increases in productivity that, as the simulations in the Greenbook and the extended scenarios in the Bluebook suggested, imply that the increase in aggregate supply is actually outstripping that of aggregate demand, thereby generating additional resource slack and putting further downward pressure on inflation. Even if you are satisfied that spending has settled onto a sustainable and acceptable upward track, the recent sluggish readings on inflation may be worrisome, either because they suggest that the level of inflation is already on the low side of your preferred range or that it may be poised to go lower.

The second implication follows from the steepness of the indexed debt yield curve, which could be taken as a measure of the gap between the currently very low real short-term rate and its longer-run equilibrium value. If aggregate demand is sluggish, then such a configuration would be appropriate. However, you might be concerned that—as related in the middle right panel, which makes the case for policy firming—too much financial accommodation is in place. If the Committee was comfortable with the level of the nominal funds rate at its December meeting, it might

believe that, as in the bottom right panel, the decline in longer-term yields, the run-up in share values, and the depreciation of the dollar since then warrant a policy offset, as President Geithner was mentioning. Such concerns would be more intense if you believed that the staff was a bit too optimistic about the prospects for inflation to remain subdued. If events unfold similarly to the “more inflation pressures” scenario in the Bluebook, the Committee would probably want to begin firming sometime soon.

Of course, there is an obstacle in doing so: The last sentence of your past four statements held that policy could be kept accommodative for a considerable period, thereby constraining the flexibility of your actions. But as related in exhibit 3, such a constraint may not really be binding on your current rate decision. In particular, the case for keeping policy on hold could rest squarely on your confidence and satisfaction with the general contours of the staff forecast, in which the economy is expected to grow briskly, resource slack to narrow, and core PCE inflation to remain at around its current level. Indeed, in the alternative long-run simulations reported in the Bluebook and repeated in the bottom four panels, the nominal funds rate could remain at 1 percent until next year if the Committee’s inflation goal were 1 percent (the black lines) or until 2006 if the goal were 1½ percent (the blue lines). Given the limitations of our ability to model the economy, such simulations are really only for illustrative purposes. Your policy decision involves weighing a variety of costs and benefits in a probabilistic setting. And in that regard, 1 percent may look like an appropriate level for the funds rate if you view the costs associated with a firmer policy—should you be wrong about aggregate demand expanding vigorously—as large relative to those incurred by running a little easier policy and risking a more vigorous expansion if aggregate demand proves more robust than you now expect. Committee members might be reassured in that regard from the fact that measures of longer-term inflation expectations, the top right panel, remain subdued as well as from the staff’s assessment that resource slack remains considerable and that potential output will be a target that is moving rapidly upward. However, as opposed to the past few meetings—given the buoyancy of financial markets—you might be less confident about that tradeoff going forward, and therefore be more reluctant to make promises about your future action, which brings me to your final exhibit.

At times over the past six months, members have chafed at the constraint imposed by the commitment to keep policy accommodative for a considerable period. But by being explicit to the public about this self-imposed constraint, you did help limit the tendency of market participants to build in unhelpfully aggressive expectations of policy firming, thereby keeping financial conditions accommodative at a time when you might have been concerned about the efficacy of alternative monetary policy actions. In the event, the expansion of aggregate demand did not falter, and there was no need to dig deeper into the toolkit of policymaking. But the fact that insurance was not needed ex post does not imply that it was unwise to purchase it ex ante.

Three options for the wording of the statement are laid out in the middle panel. For one, you could decide to retain the sentence, which would be particularly appealing if you were confident that the economy was likely to evolve in a relatively benign manner at an unchanged funds rate for some time, as in the staff forecast. That option would be even more appealing if you thought inflation was currently on the low side of your desired outcome. In addition, as President Moskow and Governor Bernanke have pointed out, the news on the conditioning elements of the statement—inflation and slack—moved in a way over the intermeeting period that would seem to have extended the considerable period. And that is how the markets took those developments as well. Given that most market participants appear to expect retention of the “considerable period” sentence, you might want more time to prepare the way more for its deletion, perhaps using the opportunity provided by the Chairman’s upcoming semiannual testimony. As another possibility, you could drop the sentence, as would be appropriate if you either anticipated tightening within the next few meetings or were no longer confident that you could rule it out. If you viewed aggregate demand as growing along a self-sustaining track and were worried that inflation pressures might pick up, you might welcome a check on the extent of financial stimulus. Even if the Committee put low odds on tightening policy sometime soon, it might view either delaying needed tightening or reneging on its commitment should inflation pressures pick up as sufficiently damaging to its credibility to warrant dropping the sentence preemptively.

But if you are concerned that the reaction to dropping the sentence might be outsized, a third option would be to soften the sentence. In the Bluebook, we suggested adopting the notion of “patience” that the Chairman introduced in a recent speech, which market participants would probably take as implying that the Committee viewed events as such that it could be gradual in firming policy. We suggested the sentence: “With inflation quite low and resource use slack, the Committee believes that it can be patient in adjusting the very accommodative stance of monetary policy.” In the feedback I’ve gotten since the publication of the Bluebook, some members expressed concern that describing policy as very accommodative, which has not been a feature of previous statements, might be taken as too strong a signal that significant tightening would soon be under way. Another possibility, as shown in the bottom panel, would be to have the Committee characterize itself as “patient in removing its policy accommodation.” I would advise, however, that you run the statement through a spell checker, something I forgot to do. That concludes my prepared remarks.

CHAIRMAN GREENSPAN. Any grammatical questions? [Laughter]

MR. PARRY. May I ask a question? If you look in the Bluebook, the range of estimates of the real equilibrium rate has shifted up substantially, which could suggest that we’re a lot

farther away from the real equilibrium rate than we thought. This is especially true for the estimates based on the FRB/US model. Can you comment on that?

MR. REINHART. Well, you are right. The estimates of r^* have moved up rather sizably, as you can see in the bottom panel of chart 8 in the Bluebook. The estimate from FRB/US is up about 1 percentage point, meaning that the gap between actual r and r^* is bigger than you thought over the prior two years and that the current stance of policy is more accommodative than you thought. I think the revision relates to a couple of things—in part the benchmark revisions and a rethinking of saving behavior but also that the estimate of the risk premium in equity prices is higher.

MR. PARRY. Okay.

MR. STOCKTON. The revision principally has to do with a sort of respecification of the model rather than objective changes in economic circumstances. As Vincent said, a significant chunk of that came about by how we were modeling the term structure premium. So I think that upward revision should not be taken as a change in economic circumstances. On the other hand, from your perspective of how far the rate is from what that model estimates the equilibrium rate to be, the distance is wider.

MR. PARRY. It's wider.

MR. REINHART. I think the other thing to note when you look at that chart is that the band is wider as well. Our uncertainty about r^* is very sizable.

MR. PARRY. Yes.

CHAIRMAN GREENSPAN. President Broaddus, did you have a question? Are there any other questions? If not, let me get started. I must say after listening to this roundtable discussion that I find it hard to recall a degree of buoyancy like the one that comes across today.

Unless I'm mistaken, Committee members have not reported on indications of a more unequivocally benign and positive economic outlook in a number of years. It sounds as though we're back in the late '90s or perhaps early 2000. That, I suspect, is a reflection of what is going on in the economy. Indeed, on the basis of both the Beige Book and today's roundtable discussion of regional developments, the data that will be forthcoming from official agencies, if my experience serves me well, are going to come in surprisingly on the upside. The outlook seems extraordinarily benign, and I'll get to the reasons why that bothers me shortly.

Profits margins are high though they may have peaked and probably will be edging downward. At this stage the usual lag between productivity growth and its effects on real compensation is likely to result in increasing incomes and thus provide a fairly solid base for further growth in consumer spending as the impact of earlier tax cuts fades. The wealth effect, which has been a drag on spending for quite a long period of time, is now back to neutral or possibly has turned positive; and in my view, the consumer debt service burdens that one hears about from most of our private-sector colleagues are really being overstated. If we look, for example, at the debt service burden on home mortgages, we find that a very large number of homeowners have refinanced and have locked in a very low coupon rate on average. That suggests that most mortgage credit servicing payments are going to be relatively flat irrespective of what we do in the marketplace. And while we likely are looking at an increase in the consumer credit part of household indebtedness, it is mortgages, of course, that dominate the overall household sector debt.

On the business side it has already been mentioned that the financing gap has turned negative for the first time in quite a significant period, and we're seeing the implications of an increase in cash flow on capital investment. We're seeing it in the anecdotal information on

capital appropriations and certainly in the new orders series, which are continually improving. Inventory investment has nowhere to go but up. The Institute of Supply Management reports that purchasing managers continue to view the inventories of their customers as exceptionally low. The implication is that new orders will strengthen, and we're even hearing some discussions about a prospective pickup in commercial lending; that has not yet happened, but it would be another indication of a surge in inventory investment. The housing market is bound to soften at some point, but we've been saying that for quite a long period of time. In any event, it's hard to imagine that housing activity will contribute very much in the way of strength to the expansion. Net exports will probably continue to be a small drag. Inflation clearly is stable.

I think the employment data are actually a good deal better than the latest payroll numbers suggest. If we look at the change in employment as the difference between gross hires less gross separations, the gross separation series as best we can judge is pretty much what we would expect given the GDP growth numbers that we have been looking at. Initial claims are down significantly as are job losses. What's happening is that new hires are well below expectations in relation to economic growth, and I suspect that virtually all of that weakness is merely a mirror image of the increase in output per hour. Indeed, the question here is how much longer we can continue to get such rapid increases in output per hour. I do not deny that we may get additional quarters with 5 percent productivity growth rates, but if that goes on much longer, it will become historically unprecedented.

An economy characterized by cutting-edge technology such as in the United States does not seem capable of expanding much faster than 3 percent over the long run. Indeed, the level of intelligence is not high enough to foster appreciably faster growth over time. As I like to ask the question, why did it take so long to recognize the economic value of silicon among other things

or to appreciate the desirability of reorganizing corporate structures the way businesses do now? Business firms could have done that fifty years ago, and they didn't. The answer is that we're just not smart enough. The reason that a lot of the emerging nations are able to sustain faster economic growth is that they are catching up. It's not an intelligence issue. So there is something here that has to change, or we really are looking at a new trend in productivity that, as I see it, is remarkably fundamental. My impression of the employment data is that the probability of a significant upward revision in the December number or a pop in the January number is a good deal better than 50/50. And I would submit that, as of next week, we may—I say “may”—be looking at a somewhat different overall picture of the labor market.

The question that we have to ask ourselves is, What could go wrong with this extraordinary scenario, which the Board's staff forecast extends through 2005? It involves the most extraordinary and benign economic performance that I have observed in my business lifetime. But then again all this involves a productivity world that I've never perceived or lived in, and it may be more real, if I may put it that way, than we imagine.

There are several developments, however, that I find worrisome. All have been mentioned in our discussion. The first is that yield spreads continue to fall. As yield spreads fall, we are in effect getting an incremental increase in risk-taking that is adding strength to the economic expansion. And when we get down to the rate levels at which everybody is reaching for yield, at some point the process stops and untoward things happen. The trouble is, we don't know what will happen except that at these low rate levels there is a clear potential for huge declines in the prices of debt obligations such as Baa-rated or junk bonds. To put it another way, the potential snapback effects are large. We are always better off if equity premiums are moderate to slightly high or yields are moderate to slightly high because the vulnerability to

substantial changes in market psychology is then obviously less. In my view we are vulnerable at this stage to fairly dramatic changes in psychology. We are undoubtedly pumping very considerable liquidity into the financial system. It is showing up in the Goldman Sachs and Citicorp indicators. We don't see it in the money supply numbers or some other standard indicators. We're seeing it in the asset-price structure. That structure is not yet at a point where "bubble" is the appropriate word to describe it, but asset pricing is getting to be very aggressive. I don't know whether any of you have noticed that, while stock market prices have been rising persistently since March of last year, the rise in the last four or five weeks has been virtually straight up. That's usually a sign that something is going to change and that the change is usually not terribly helpful.

I think we have to be wary of the possibility of a somewhat different outcome than is suggested by the model we may be looking at. The main issue here is what will happen in the event of a decline in the rate of growth in output per hour. In the context of the strength in aggregate demand that we are experiencing, we should get a big surge in employment. We should also get, as the staff forecast suggests, the first significant increases in unit labor costs. It is not price that we ought to be focusing on. It is not core PCE, although I think that's ultimately where we're going. The first signs of emerging trouble are likely to be in the form of increases in unit labor costs; and with profit margins currently at high levels, those increases may be absorbed for a while in weaker profit margins, which is probably not a bad forecast at this stage. But there is also a difficult question regarding what has caused the decline in inflation in recent years. It has been global and not confined to the United States, and it cannot simply be the consequence of monetary policy. I realize that a lot of people think that world monetary policy has suddenly gotten terrific and that it is the reason for the global decline in inflation. I'd love to

believe that is true. I don't believe it for four seconds. I think that what we're looking at is, to an important extent, the consequence of a major move toward deregulation, the opening up of markets, and strong competitive forces driven in large part by technology. I don't know how long this very significant downward pressure on prices is going to last. With regard to deregulation, I do know that the lowering of trade barriers is coming to a halt. All of the low-hanging fruit involved in trade negotiations has probably been picked, and we will be very fortunate if we can just stabilize the situation here without experiencing a rise in protectionism.

There has been a lot of discussion about the gap issue here, and I think for good reason as Ben Bernanke and Bill Poole have indicated. I might add that random walk does not mean that the inflation in 2004 is necessarily going to be the same as in 2003. That's the expected value, but the outcome could very easily be 1½ points higher under foreseeable circumstances. What I think we have to ask ourselves is which of the various alternatives for policy can give us the most significant trouble if we are wrong. In that regard my judgment is that the expected value of inflation is in the area of its current level as far out as I can see. I also think that if we wanted to retain the "considerable period" language, we would be able to do that for a significant period of time. Indeed, I would guess that the most likely forecast of when we will have to move is not too far from when the futures market is currently anticipating that move will occur. We need to remember that we are talking very largely about a move in a tightening direction. There is a small probability that we might have to move rates lower should we suddenly run into some deflationary problems. That in my judgment is a very small probability, but it is not zero.

We are, therefore, essentially looking at the question of doing nothing or tightening. In that regard, the most costly mistake would be for us to be constrained by the "considerable period" phraseology at a time when inflationary pressures were building up fairly rapidly. If the

probability that we will have to drop the “considerable period” reference is very high, which I think it is, it’s not clear to me what we gain by waiting. If, indeed, the economy is as buoyant as the discussion around this table has just described, then we are going to be pressed relatively quickly by market developments to start moving. In that event, the futures bulge now ten months out would very likely start to move closer in time. I don’t think that’s the most probable outcome, but it is a sufficiently large part of the probability tail to suggest to me that we ought to drop the “considerable period” language and adopt some reference to “patience.” The latter would in my view give us greater leeway to take action. We probably will also have to tack against the amount of liquidity that we’re pumping into the financial system. As Governor Gramlich rightly mentioned, it’s probably wise to call in the fire engines.

It’s one thing to look at the degree of liquidity after rates have been this low for this long and another to presume that the structure of the economy is going to stay this way if we continue to hold rates at this level for, say, another year and a half. So my view as far as policy is concerned is that it would not be a bad thing if we referred in some way to “patience” rather than to “considerable period” in our press statement and the markets responded in a negative way by moving up funds rate futures and long-term bond yields. Unless what I’ve heard this morning about business conditions and business sentiment is going to be dramatically reversed by the time of the next meeting, interest rates are too low. One may ask how that can be because a large number of market participants are aware of all these developments and in the past they presumably would have moved market rates higher by now. I would suggest that there is a very significant danger that they have listened to us! [Laughter] We have convinced them that the earlier simplistic view of our response to an upturn in economic growth and the associated risk of rising inflation does not apply under prevailing circumstances and will not lead us to tighten

monetary policy in the near term. We have succeeded in demonstrating that such a view was now wrong. When we first argued that it was wrong, they didn't believe us. We argued again, and they said, "Well, maybe." We continued to argue that they were wrong, and they now believe us.

One implication in my judgment is that we can't necessarily look, for example, at a chart showing the one-year maturity for the ten-year Treasury note nine years out, which is trading steadily at a little over 6 percent, and say that the market does not expect a rise in inflation. That may be what the numbers tell us. What I don't know is whether that chart is based on market factors or whether I'm looking in a mirror. And I fear that it's more the latter than the former. It is a terrific vote of confidence in the System or what Al Broaddus likes to call our credibility, but I'm not sure that we're wise to sit here and allow that view to persist if indeed that is the case.

As a consequence and in line with our discussions at this and previous meetings regarding the desirability of taking gradual steps, I think today is the day we should adjust our press statement and move to a reference to "patience." I think the downside risks to that change are small. I do think the market will react "negatively" as we used to say, but I'm not sure such a reaction would have negative implications, quite frankly. If we were to retain the "considerable period" wording, I would hate to find us in the position of seeing Citicorp's forecast of a 300,000 increase in January employment number actually materialize in next week's announcement. We would be in a very uncomfortable position. If we go to "patience," we will have full flexibility to sit for a year or to move in a couple of months. I don't think we're going to want to do the latter, but I'd certainly like to be in that position should a rate increase become necessary. That's my view. Who'd like to comment? Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I ended my previous presentation by saying that I would be very cautious about moving from the very accommodative stance we currently have. Rates are extremely low and obviously much lower than they have to be over the long run. But from a risk-management perspective, as you like to say, I think they are at an appropriate level right now. I think that keeping them low and moving aggressively if necessary makes sense in a situation in which the risks on productivity, costs, and prices are still pointed down. Total inflation is likely to fall. We haven't seen any closing of the output gap. This is a situation in which we ought to be taking our risks on the side of ensuring a rapid return to full employment. The benefits in economic welfare would be considerable. A small overshoot that pushed inflation up a little would have essentially no cost and might even be desirable.

Having said that, however, I still support dropping the "considerable period" language and substituting "patience." The "considerable period" phrase was inserted as a form of unconventional policy when we were concerned about deflation and the lower nominal bound. That's not an issue anymore. Rates will rise when we move to "patience," but the expansion is robust to a modest increase in rates. I think the rise will be modest since it is in the context of weak employment and low inflation. No one should anticipate that the Committee is contemplating an early tightening. I think retaining the slight downward tilt in the inflation risk sentence will help, and I believe that is your proposal as well.

There will never be a good time to eliminate the "considerable period" phrase. But I think that doing so today will be seen as a logical extension of what we did last time in terms of tying policy actions to economic developments and to the words that you and other members have used in speeches rather than as a sign of immediate action. You will have an opportunity in your testimony to expand on "patience" and that theme. Such a shift is not only about restoring

our flexibility; with the economy strong, it might be a good time to let the market react more to incoming data. There are upside risks to our forecasts and to the path of rates despite the fact that my best guess is that rates won't have to rise for a while. Sitting on expectations in these circumstances might not be stabilizing from the long-run perspective. This could damp some of the interest rate risk-taking that we see in the market. I'm not sure it will do much about credit risk, which people also have expressed concern about. I think the lack of appreciation of credit risk is a function of a very, very good economic outlook, and I hope that view doesn't change even with this change in wording. I would be cautious about using that argument. It strikes me that it's about second-guessing asset-price levels. It's something we didn't do in the stock market run-up in the '90s, and I was pretty comfortable with how we handled that. So I'd be a little cautious about using monetary policy to try to damp asset-price movements.

CHAIRMAN GREENSPAN. I certainly agree with that. President Poole.

MR. POOLE. Mr. Chairman, I support the recommendation. If in nine days, when we get the employment report, it's a weak one—I hope it's not—much of the increase in interest rates that we will see this afternoon will go away, but we'll be out from under the “considerable period” language. If we remove the “considerable period” language after we see a strong employment report, I think it will be taken as an announcement of an action at the next meeting, which is a move we might not want to make. Removing the “considerable period” phrase gives us a lot of flexibility, and I think it's the right way to go.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. First off, I would endorse many of the dovish comments Don started with. [Laughter] But in the meantime I'll be relieved to drop the “considerable period” language. I think you're right that we're looking at the mirror in that the

market is listening to us. And that's even more than normally nerve-wracking. I would like to keep open the possibility of staying ahead of the curve, and I think this proposed new language does that. We're not making a move; but as you point out, there's a whole lot of uncertainty about various aspects of the economy, and we have to be ready to move if need be. So I support the rate recommendation and the language suggestion.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. I support your recommendations, Mr. Chairman. On the funds rate, I absolutely agree with you. On the change in language, to the extent that it adds to our flexibility I think it's a good time to make the change. So I'm very supportive.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, I support both your recommendation on the rate and the change in the wording. I have a question. At our last meeting we voted on the exact words in the press release. Are we going to do that again?

CHAIRMAN GREENSPAN. Yes, we shall.

MR. PARRY. Thanks.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Mr. Chairman, I support your recommendation for the rate. My preference on the sentence would be somewhat different from what you're recommending. I would prefer to have you explain "considerable period" in more detail in your testimony. It will be delivered after the jobs report comes out, so you will have the flexibility of giving a clearer signal. If the jobs report is very strong, as I think it will be, you would be in a position to give a very clear signal that the "considerable period" will not last for long. We have conditioned it already, and my preference would be to get rid of the concept completely and not have it phased

out by a reference to “patience.” If we have a sentence in our statement that says the Committee believes that it can be patient in removing its policy accommodation, we will still have the problem of removing that sentence sometime in the future. So my preference would be to have you do the explaining during your testimony and to get rid of the time reference completely in the March statement.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. I support your recommendation on the rate and on the change in language. I would reiterate one point I’ve tried to make before—apparently unpersuasively—that further disinflation or even a touch of deflation, if it’s stemming from rapid productivity growth, is not necessarily a cause for concern.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. I can support both elements of your recommendation. As I said in my earlier remarks, I’m somewhat torn between two kinds of risk. But as I think about the outlook for this year, it seems to me that the economy could unfold very much the way it did in ’95, ’96, and ’97. In that period we started to get a better sense of the productivity story and its implication that real equilibrium interest rates should rise. I want to be set up for that possibility. But I also want to be set up for the possibility that we won’t want to do anything. Given the degree of uncertainty that I feel about the appropriate strategy for this year and maybe next year, I think gradually starting to get to a position of greater flexibility is without a doubt the right thing to do. Nevertheless, I would not in any sense want to suggest that we’re eager to move. So, keeping the inflation balance a little to the downside and leaving the rate unchanged while starting to remove the “considerable period” commitment by modifying the language strikes me as the best way to give us the degree of flexibility we’ll need this year.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. I support your recommendation on the rate, and I am glad to see that the old language referring to a “considerable period” is going away. I can support the recommended wording change to “patience,” but like President Moskow I would prefer not to use the “patience” language because we’ll have to get rid of that also. I’d feel much more comfortable going back to not including in the statement any kind of forward commitment of that sort. The faster we can eliminate both the “considerable period” and the reference to “patience” the better I will feel.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I support both parts of the proposal. But I would echo what Governor Bies and Mike Moskow said. Implicit with the introduction of the words “considerable period” was the need at some point for an exit strategy. And in my view even with the term “patience” we will need an exit strategy. But I agree with your unchanged rate proposal, and I think the change in wording to “patience” is an improvement from where we are now. So I support both parts of your proposal.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. I agree that there’s no need to move policy now. The far more important issue right now is what we say about it. It has been clear from our discussion that risks are perceived on both sides of the Greenbook forecast—growth and inflation. Some believe we could be surprised on the upside with both growth and inflation. Others see supply trends as possibly leading to declining inflation even in the face of what may otherwise be strong growth.

This raises the question—and you, too, raised this issue in your comments—of where it is most costly to be wrong. I think some of us believe that being wrong on the inflation trend side—that is, lower inflation than we are projecting—would be more costly. I have questions about that along the lines that President Stern just suggested. I don't believe that price decreases prompted by strong productivity create a pernicious form of deflation. On the other hand, if supply contracts faster than we expect and both growth and inflation take off, there is way too much accommodation in the pipeline. Fiscal policy is accommodative, monetary policy is accommodative, and financial markets are increasingly so. I agree with your position that being wrong on that combined risk may in fact be more costly than being wrong on the inflation side. It is true that we have yet to see the kind of strong employment growth that we expect. But by modifying our language I think we get a bit of flexibility for the time when we do see that growth and a little more space to move proactively in the face of a strongly growing economy. So I feel that it's a good move on both sides.

I also think that it's better for markets to see us take several steps in removing the “considerable period” language because there seems to be some froth out there. It's going to take a little while to get rid of some of the bets that people have been making on how long the “considerable period” will be. If we step back gradually, the market reaction will be less.

CHAIRMAN GREENPAN. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I support your recommendation on the rate and also on the change in language. I welcome the removal of the “considerable period” reference because, as I said earlier, I would prefer to be silent on any future policy actions that the Committee might take. In that regard I would also have to agree with the concerns that

President Moskow and Governors Bies and Olson raised regarding the new language. But I do support the change at this point.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Mr. Chairman, I support your recommendation. I do think the new language is a nice recalibration of our signal. It is an exit strategy that is thoughtful and gentle, and in that regard it makes sense. When Ned was talking about calling in the fire trucks, I was thinking that we had already planned to do that, but we sent the gas trucks in their place.

[Laughter] We've had the nozzle on automatic, and I think it's time that we put our hand back on the nozzle. In my view, your proposed rewording is a great signal, and I support it. Thank you.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I support your recommendation on the rate and also on the wording. In terms of the timing, at some level I could make a case that the weak jobs report makes it a little easier for us to take this step because it doesn't involve the anticipation of an immediate interest rate movement. As to the concerns about whether or not this is a big enough step, we need an exit strategy, and this is one. These are baby steps, but as we know from our babies, the first step is the hardest. And moving away from "considerable period" is probably a step well taken now. We can move over time to where we want to be, and then we can finally get rid of this contingency language. So I think it's the right thing to do and the right time to do it.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. I agree with the phase-out approach. I think it would be a mistake to drop this language suddenly. It would risk sending a signal that a

tightening is imminent and creating an overreaction in the financial markets. So I support both your rate recommendation and your language recommendation.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. So do I.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. So do I.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Mr. Chairman, I had my hand up rather quickly, although Norm didn't see it, because I was looking forward to supporting what I thought would be Don's recommendation to keep the "considerable period" language. But I can accept your recommendation. This is a tough issue, and I think you made some very persuasive arguments, especially at the end of your statement. But let me just comment very quickly. I agree that most of us are now much more optimistic about the outlook, though I may not feel quite as strongly as you do. But I do believe that the supply-side issues that Don discussed and that are raised in the forecast are significant or at least not insignificant. Also, we talked a little about downside costs. As you know, there is a probability and a cost. I agree that the probability of further disinflation may be lower than a move in the opposite direction, but I think it's important not to underestimate the cost if in fact we do have further disinflation. We have the funds rate at 1 percent. I'm not confident that we are fully prepared yet to deal with the kinds of policy issues we would have to deal with if we got a bigger disinflation move than we now anticipate. So if it were my call, I would leave the "considerable period" language in the statement a little longer. But again it's a close call, and I could certainly accept your recommendation.

CHAIRMAN GREENSPAN. Let's get the draft statement distributed around the table. I assume everyone has had a chance to read it. Any questions, comments, or objections?

President Minehan.

MS. MINEHAN. I have no objection to this press release. I think it's a really good one. But I would just like to make a comment. Maybe it's because of the discussion yesterday or the way the Bluebook was lined out or the presentation today, but as a member of this Committee, I really feel better about the process we've gone through over the last couple of days as it relates to the statement than I have at any time in the last several months. I think I'm coming around to understanding better how this communication is working. And I thought the process of working through portions of the statement in the Bluebook was really helpful. So despite my comments yesterday about forty pages involving three alternatives and so forth, I do want to compliment the staff on the job you did.

CHAIRMAN GREENSPAN. If there are no further comments, I'll ask the Secretary to read the appropriate language.

MR. BERNARD. Starting with the directive wording itself: "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 1 percent."

And with regard to the announcement language that the Committee is voting on: "The Committee perceives that the upside and downside risks to the attainment of sustainable growth for the next few quarters are roughly equal. The probability of an unwelcome fall in inflation has diminished in recent months and now appears almost equal to that of a rise in inflation. With

inflation quite low and resource use slack, the Committee believes that it can be patient in removing its policy accommodation.”

CHAIRMAN GREENSPAN. Would you call the roll?

MR. BERNARD.

Chairman Greenspan	Yes
Vice Chairman Geithner	Yes
Governor Bernanke	

MR. BERNANKE. Am I voting on the statement or the statement and the policy action?

MR. BERNARD. On both.

MR. BERNANKE. On both. Thank you. Yes

MR. BERNARD.

Governor Bies	Yes
Governor Ferguson	Yes
Governor Gramlich	Yes
President Hoenig	Yes
Governor Kohn	Yes
President Minehan	Yes
Governor Olson	Yes
President Pinalto	Yes
President Poole	Yes

CHAIRMAN GREENSPAN. May I interject? In fact, the Vice Chair has an interesting suggestion, so let me call on him.

VICE CHAIRMAN GEITHNER. The third sentence in the second paragraph, which is the sentence about labor markets, now reads in the proposed text: “Although new hiring remained subdued, other indicators show an improvement in the labor market.” I was just going to suggest that we replace “show” with “suggest.”

SPEAKER(?). Yes, that’s a good idea.

CHAIRMAN GREENSPAN. I think that would be useful. Unless anybody disagrees, let's make that change in the statement. [Secretary's note: The change in question was not in the paragraph of the statement covered by the foregoing vote.]

CHAIRMAN GREENSPAN. I have a note from Michelle about an issue that we should address.

MR. FERGUSON. Here is the issue that has come up. The press and people in the market know that we had a Working Group on Communications and that we were going to discuss communication issues today. There was no secret as to what we would be talking about at this meeting. The press I suspect will be interested in knowing what came out of the discussion today. So Michelle would like us to consider what we want her to say about that. She has some thoughts of what she might say. Do you have other copies of this note that you have given me, Michelle?

MS. SMITH. I can get other copies. That one is for you.

MR. FERGUSON. Okay. Here are some thoughts about what Michelle might say. I think we all want to provide a consistent message in our public comments. One question is whether we are going to be making some changes. Michelle proposes to say that the Committee considered a range of issues and has no new formulation to announce, which is the case, and that we decided to adapt the statement gradually in response to changing economic circumstances. I think that is a fair assessment.

The second question is whether today's discussion was related to the study of the working group mentioned in the October minutes. In lieu of trying to tie this to anything, I think it is best simply to say that we've been evaluating and will continue to evaluate communications

in response to changing circumstances but announce that the working group has disbanded. That group doesn't have more to do.

CHAIRMAN GREENSPAN. Why don't you just say it has completed its work.

MR. FERGUSON. Or has been shot? [Laughter] Okay, it has completed its work. Finally, the hardest question is the one about releasing the minutes earlier. I think the safest thing is to say that we have made no decision on early release of the minutes because, in fact, we haven't yet made any decisions on that issue. Does anyone have any strong objection to that approach to dealing with what I think is going to be a pretty frenzied interest in what happened?

MR. MOSKOW. This is not an objection but a question. What about the role of projections? That issue has been in the press.

MR. FERGUSON. Oh, it has? I don't recall that being in the press.

MS. SMITH. Governor Bernanke in his ABA speech raised the possibility of increasing the frequency and the time period. I don't believe that people expected you to make a decision about that at this meeting, but we may get some questions about that. It would be a good idea for you to give me some guidance.

MR. FERGUSON. Well, I think the answer is that we decided not to increase the frequency or change the time when we release the forecasts. But I think we can say that our policies will continue to evolve as we go forward with regard to exactly what we forecast. I think that's a fair statement of where we came out. Is anyone uncomfortable with that?

MR. OLSON. I would be inclined at least to emphasize that we recognize the importance of communication. My concern is that this sounds as if we're suggesting that our work on communication issues has been concluded. I don't have precise wording to suggest, but I think we want to emphasize that we will continue to look at issues of communication.

CHAIRMAN GREENSPAN. I was about to raise the same issue. Also missing here is a statement that we actually had a very productive discussion.

MR. OLSON. Right.

CHAIRMAN GREENSPAN. In fact, we discussed this subject of communication for several hours and came to a number of conclusions. This makes it sound as though we couldn't agree on what page number we were dealing with.

MR. FERGUSON. Well, I think just the opposite occurred.

CHAIRMAN GREENSPAN. It was actually a very interesting and useful discussion about how we ought to communicate. And I think we will continue as is necessary to be involved in endeavoring to improve our communications as the economy and markets change.

MR. REINHART. Mr. Chairman, the Committee did vote on the exact words of the press statement. If you intend to do that in the future, that is another piece of positive news that Michelle can relay. And that will be in the minutes.

MS. MINEHAN. We didn't vote on the whole press statement.

MR. REINHART. But you voted on the risk-assessment paragraph.

MS. MINEHAN. We voted on that paragraph, yes.

MR. FERGUSON. That strikes me as very much a question in intra-Committee dynamics, not a question of external communication. I'm not sure about the degree to which the markets are focused on what gets voted on and what doesn't.

MR. REINHART. Well, at the last Bond Market Association meeting—or rather the time before—the significance of not voting on that wording was an issue that was raised.

MR. FERGUSON. And I thought the way we handled that was to say that it just happened.

MR. SANTOMERO. After you work through all of these pieces, can you make sure everyone of us gets a script, if you will, from this so we know what's out there and what isn't about what we concluded?

MR. FERGUSON. Yes.

MR. SANTOMERO. They're going to come at us in different directions, so I think it's important that we have some uniform way of talking about what we have concluded.

MR. FERGUSON. I would hope that we can get this draft redone and circulated to everybody relatively quickly.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. We did have a rather extensive discussion yesterday on whether or not we should parallel test, with some work involved on both the staff side and our side, the earlier release of the minutes just to see how it goes. I don't have a single problem with not telling anybody that. In fact, my own view is that that's the sensible thing to do. Let's see how it feels to us first before we go telling the world that's what we're doing. There are, however, different opinions about how to deal with the outside world among those of us at this table. Should we have an understanding about that?

MR. SANTOMERO. That's why we need that document.

CHAIRMAN GREENSPAN. Let's ask Michelle her view.

MS. SMITH. I think if we did announce that you were conducting a parallel test, you would be forced to release the minutes early.

MS. MINEHAN. That's what I think.

MS. SMITH. I would recommend that the Committee not say anything about parallel testing and give yourselves an opportunity to see how that process works. You could then choose whether or not to make a comment.

MS. MINEHAN. I agree with that.

CHAIRMAN GREENSPAN. This is one of those cases where, once we move in a direction, we cannot move back.

MS. MINEHAN. I know.

CHAIRMAN GREENSPAN. And announcing that would actually be a move in a direction. We don't have the luxury to say we're contemplating doing something like that and then say we made a decision not to be transparent.

MS. MINEHAN. Right. I think we learned our lesson about that last year. I really do think that we need to agree not to talk about this because, if we talk about it, then parallel testing doesn't do us any good.

CHAIRMAN GREENSPAN. It is regrettable I must say, but unfortunately that is an accurate statement.

MR. FERGUSON. Well, I presume that decision, which was taken yesterday, is covered by all the security and confidentiality rules that cover all these kinds of issues.

MS. MINEHAN. I hope so.

MR. FERGUSON. So that's the point in trying to be clear about what we are saying and what we're not saying.

MR. GRAMLICH. Could I just raise another approach? Maybe you won't like it. But if Michelle gets asked about this, could she just say that it will be dealt with in the minutes?

MS. SMITH. I don't believe so. I think you all will experience some pressure from the media and the public. And I think this issue will come up in the Chairman's Monetary Policy Report testimony. Reporters in the last week were saying that they expect some announcement at this meeting on the conclusion of your efforts in this area. So I don't think we have that luxury.

CHAIRMAN GREENSPAN. The next meeting is March 16. Dave Stockton is available to accept revisions on your forecasts up to the close of business Friday. Let us go to lunch.

END OF MEETING