

**Conference Call of the Federal Open Market Committee on  
January 16, 2009**

A conference call of the Federal Open Market Committee was held on Friday, January 16, 2009, at 10:30 a.m. Those present were the following:

Mr. Bernanke, Chairman  
Ms. Duke  
Mr. Fisher  
Mr. Kohn  
Ms. Pianalto  
Mr. Plosser  
Mr. Stern  
Mr. Warsh

Ms. Cumming, Messrs. Evans, Lacker, and Lockhart, and Ms. Yellen, Alternate Members of the Federal Open Market Committee

Messrs. Bullard, Hoenig, and Rosengren, Presidents of the Federal Reserve Banks of St. Louis, Kansas City, and Boston, respectively

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

Messrs. Connors, English, and Kamin, Ms. Mester, Messrs. Rolnick, Rosenblum, Sniderman, and Tracy, Associate Economists

Mr. Dudley, Manager, System Open Market Account

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

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

Mr. Slifman, Senior Associate Director, Division of Research and Statistics, Board of Governors

Messrs. Leahy and Levin, Ms. Liang, Mr. Reifschneider, and Ms. Stefansson, Associate Directors, Divisions of International Finance, Monetary Affairs, Research and Statistics, Research and Statistics, and Banking Supervision and Regulation, Board of Governors

Mr. Luecke, Section Chief, Division of Monetary Affairs, Board of Governors

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

Mr. Fuhrer, Executive Vice President, Federal Reserve Banks of Boston, respectively

Messrs. Altig, Potter, Rudebusch, Sellon, and Sullivan, Senior Vice Presidents, Federal Reserve Banks of Atlanta, New York, San Francisco, Kansas City, and Chicago, respectively

Mr. Gavin, Vice President, Federal Reserve Banks of St. Louis

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

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CHAIRMAN BERNANKE. Good morning, everybody. The principal item on the agenda today is to have a preliminary discussion on inflation objectives and that range of communication issues, and I will come back and provide some more introduction to that shortly. We also should take the opportunity to talk a bit about the structure of the FOMC meeting, which we can then apply to the regular meeting coming up in about ten days.

Before we get into the regular agenda, though, I would like in a moment to ask Scott Alvarez to describe the terms of the Treasury–FDIC–Fed deal with Bank of America. That deal was originally scheduled to take place—or to be announced—after the close of markets today, and so my hope had been that I would be able to present this to you before completion or announcement. In part because of market conditions, the bank asked for an acceleration to this morning, and so that news, obviously, is already out. I apologize that we were surprised and weren't able to provide as much advance warning as we would have liked. In any case, I am going to turn to Scott and let him just outline what we did and why we did it. The Richmond Bank was very much involved in this, as was New York. After Scott's comments, President Lacker, if you would like to add anything, you are welcome at that point to do so, and then we will have any Q&A that people want to do. Let me turn now to Scott to give us a quick overview of the transaction.

MR. ALVAREZ. Thank you very much, Mr. Chairman. Let me start by saying that a tremendous amount of effort went into this deal, and the folks at the Richmond Reserve Bank—in particular the lawyers and the exam staff there—with some support from the New York staff did a phenomenal job in putting this together. This proposal was motivated by significant losses that Bank of America announced this morning. There are two kinds of losses. They announced some losses that were a little above market expectations for Bank of America itself. This is their first quarter of losses, and the market is now expecting that this is the first of several quarters of losses for Bank of America. They are one of the more thinly capitalized banking

organizations, so losses for them are taken pretty seriously. What was most important was a very large loss that Merrill Lynch declared for the fourth quarter today, much larger than market expectations—in the mid-20s pre-tax. The concern was that a large loss on the Merrill Lynch acquisition, which Bank of America just closed on January 1, might shake market confidence in Bank of America itself.

The proposal that Bank of America requested from us and that we ultimately agreed to provide is in two parts. One is a capital injection of \$20 billion from the Treasury from the TARP funds—that is in the form of preferred stock. It is very much like the preferred stock that was issued in the CPP (capital purchase program) to other banking organizations, except that the interest rate is higher. It is a uniform 8 percent interest rate right from the start, rather than 5 accelerating to 9, I believe, under the CPP. The capital injection has some conditions tied to it. One condition is that dividends be restricted to a penny a share per quarter for the next three years. There is also an executive compensation requirement that is more severe than the executive compensation requirements that apply under the CPP but very much like the exec comp restrictions in the Citi deal. So the highest management of Bank of America, roughly the top thirty officials, had their bonuses cut 40 percent for the next two years, and their bonuses are based on the 2007 performance. There are also restrictions on corporate activities, on the use of corporate jets, and on various extra corporate expenditures, which are subject to Treasury review.

In addition to the capital injection, the U.S. government agreed to provide some downside protection for a period of time on a pool of ring-fenced assets. This part was also modeled on the Citi deal. The maximum size of the pool is \$118 billion. The pool includes a variety of residential and commercial real estate securities, including some structured instruments—CDOs and the like. The underlying assets include a range of prime, subprime, and alt-A assets. There are also some derivatives—in fact, a large derivative book on real estate and other corporate assets—and some leveraged loans. The term of the downside protection is ten years on the residential-mortgage-based assets and five years on everything else. The way it is structured, Bank of America has a deductible of \$10 billion. That is the first loss position on any losses in this pool. After the Bank of America loss position, the U.S. government will share losses on a 90/10 basis with Bank of America, the government taking the next 90 percent and Bank of America, 10 percent, for another \$10 billion. That \$10 billion of losses is shared between the Treasury and the FDIC on a *pari passu* basis, which is slightly different from the Citi deal. The Treasury will take \$7½ billion in losses potentially, and the FDIC is willing to take \$2½ billion.

In exchange for providing that protection, the Treasury and the FDIC are getting \$4 billion in preferred stock and some small amount of warrants as a premium. The losses will be based on actual losses that are incurred in the maturity and sale of assets from the pool, not on mark-to-market losses. So if the pool continues to exist after they have gone through that series of \$20 billion in protection, then the Federal Reserve Bank of Richmond stands ready to make a loan to Bank of America on the basis of the assets remaining in the pool. That loan would be on a nonrecourse

basis—so recourse only to the assets in the pool. Again, Bank of America would share 10 percent of the losses alongside the Reserve Bank in that pool liquidation. The Reserve Bank is getting a commitment fee on this loan that begins immediately on signing the documents. The fee is 20 basis points on the outstanding amount of the assets, which represents the potential amount that the Reserve Bank could lend against. Once the loan has been drawn, the Reserve Bank would also get an interest rate of OIS (overnight index swap) plus 300. That interest rate is the same that we have used in the Citi deal. The restrictions that I went through on the preferred stock that the Treasury gets are also part of the asset ring-fencing proposal and will last as long as the ring-fence continues to exist. That is the summary of the deal. President Lacker may have other comments to make, and I am happy to answer any questions.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. In putting this together, our staff benefited tremendously from what has been learned over the past two months in New York from trying to put pencil to paper and negotiate the details of the legal agreement pursuant to the term sheet for Citi. We were able, at the margin, to improve in several respects on a couple of the provisions of this ring-fencing arrangement. In our case, actually, the collateral isn't going to be the underlying securities. It is going to be just Treasuries. But the loan agreement stipulates that the repayment amount is the amount of the outstanding balance of the loan minus the amount of credit losses they incur on the underlying assets. In addition, we have a trigger point for advancing the credit that is a bit tighter than before and a couple of other minor things.

But I want to thank the New York staff and the Board staff as well for doing a great job in helping us put this together. This obviously is an uncomfortable thing for any central bank to do. The terms of this deal are very consistent with the Citibank terms, so it seems like a consistent follow-through in terms of the conditions involved for the institution that triggered this intervention and the terms and structure of the intervention. So we were happy to cooperate with the System in carrying this out.

CHAIRMAN BERNANKE. Thanks, President Lacker. I agree with Jeff that this is uncomfortable. It is a significant improvement, I would say, over some of the things we have had to do in the past in that the Treasury obviously is taking by far the bulk of both the capital investment and the fiscal risk and the FDIC is fully engaged as well. The FDIC also announced its intention to expand the loan guarantee program to allow for up to ten-year covered bond type of instruments, which will be interesting. They are going to go out for comment on that, and we will see how that works out. So they are very much engaged.

I would make a couple of other points. One is that we also had the benefit of knowing somewhat longer in advance than had been the case in other situations and so had more time to determine what strategy to follow. I think the agreement will reflect that greater time and greater attention. Finally, and this perhaps anticipates some of our later discussion, we have been very attuned not only to the credit risks but also to the monetary policy implications of these deep-tail loans. We don't expect to have to make the loans, but if we do, we want to make sure that they don't create balance sheet problems in terms of our monetary policy. Both in this case and in the final negotiation with Citi, we have worked it out in a way that, if we make loans, it will be on a tranching basis so that we wouldn't have to make a loan of \$300 billion or \$100 billion in one shot—rather, somewhat smaller loans that could be better managed from a monetary policy point of view. So that is the overview. Let me see now if there are any questions for Scott, for me, or for Jeff. President Fisher.

MR. FISHER. Thank you, Mr. Chairman. I have two questions. You may remember that, back when we first started down this path, we had a discussion—at least I raised the subject—about a decision tree and about our assessing possible outcomes. I can say this in front of the group; this is an inside question. After that discussion, President Geithner and I had

substantial phone conversations, and I was assured that there was a decision tree and that we were thinking through all the different possible outcomes. My question is the following: What probability did we assign to this kind of problem arising from B of A, particularly when they announced the merger with Merrill? I am curious as to whether we envisioned this as a possibility. If so—and, of course, circumstances change over time, and nothing is perfect—what reasonable probability did we assign when that merger was announced that we might have to step up to the plate? Thank you, Mr. Chairman. I have a follow-up question that is not related to this about an outside response to a question that I anticipate.

CHAIRMAN BERNANKE. Well, the agreement took place over the Lehman Brothers weekend in a situation of considerable stress and anxiety. But it was a freely negotiated agreement between Bank of America and Merrill. There was no government assistance, and there was no request for government assistance. It was a commercial decision. At that time, we were actually quite happy to see it happen because we were concerned about the pressures on Merrill. But it was their decision, and we had no particular reason to think that there would be extraordinary losses in this case.

Of course, the world has changed in just a few months, and this whole situation was stimulated by a call from Ken Lewis just a few weeks ago to the effect that the losses that Merrill Lynch was going to report at the end of the fourth quarter had risen on the order of \$10 billion or \$15 billion in just a couple of weeks, in terms of what they were reporting to Bank of America. So these losses were not anticipated, certainly not at the time of the merger agreement, and they were actually quite a shock. We were a little disappointed in Bank of America's monitoring in that they seemed a bit behind the curve in terms of following the developments at Merrill Lynch. But there were enormous losses at Merrill Lynch that emerged very quickly and that surprised

Bank of America and us as well. I don't know if I am answering your question, but we did not anticipate this problem when the transaction was originally agreed to. You had a follow-up question?

MR. FISHER. Thank you, Mr. Chairman. This is a separate question: How do we expect to counter concerns that we are basically underwriting greater concentration as we go through time? In essence, what we are doing here is providing emergency lending to underwrite heavy concentration by virtue of a merger. So I would just appreciate your thoughts or perhaps the thoughts of other members of the Committee on how we deflect that kind of concern if it arises in the marketplace.

CHAIRMAN BERNANKE. It is a legitimate question, President Fisher. This particular transaction, as I was just saying, was different from, say, Bear Stearns, where our intention was to arrange a merger in order to stabilize the company. In this case, as I said, it was a freely undertaken business transaction in which the government was not involved.

It is clear that, on the one hand, we are seeing a consolidation of firms and some increase in concentration. At the same time, the industry overall is shrinking and needs to shrink, and that is going to be a structural problem going forward. I think the right approach—and I have said this most recently in my speech this week—is that there needs to be a wholesale policy response to the question of “too big to fail.” President Stern, of course, is very familiar with this issue and has written on it. That could involve breaking up firms. It could also involve a tougher regulatory regime for so-called systemically relevant firms. There are different ways to address it. It must be addressed. It is very important to address.

But right now we are doing the best that we can to address the immediate threats to the system. I think we are making progress. As I said before, the Fed's role is still there, and it

shouldn't be there at all ideally, but it is now at least subsidiary to the Treasury and the FDIC. I am hopeful that going forward the Administration will be able to develop a systematic, comprehensive approach to the banking problems that will leave us out of it entirely, or at least keep us in our appropriate liquidity provision role. So the answer to your question in short is that it is very important, but we can't address it simultaneously with addressing the near-term threats to the system. But the regulatory and legislative response clearly has to address those issues.

MR. FISHER. Thank you, Mr. Chairman. Again, I pray that we keep this in mind, as obviously we are doing, as we go through time because our actions might counter our intentions if we are not careful. Thank you for addressing the issue. I appreciate it.

CHAIRMAN BERNANKE. Well, I think that speaking about it is, obviously, one useful way of counteracting the concern. President Rosengren.

MR. ROSENGREN. My question was whether the Treasury had a criterion for when they thought ring-fencing was the most appropriate way to deal with a problem versus alternative ways of dealing with these problems. We have had two cases now in which we have done ring-fencing. The circumstances have been very different. So is there a criterion that is being worked with the Treasury and the FDIC for when those are appropriate actions to take and when other options should be considered instead?

CHAIRMAN BERNANKE. Well, first, there are three classes of firms. There are the so-called healthy firms that are eligible for the CPP. There are the very sick firms that require emergency assistance. And somewhere in the middle are the targeted-investment programs—Citi and BAC are now the two examples of that. These are firms that were not immediately in a state of failure but were obviously under serious stress, and there is a set of criteria for those firms and the way we approach those firms.

The specific combination of capital and ring-fencing is, to some extent, a matter of judgment—you know, looking at the situation of the individual firm, the market conditions, and so on. But there is a general feeling—I think we all may be seeing this—that the preferred capital approach is reaching its limits. The markets don't view preferred capital injections as being a perfect substitute for common equity. On the other hand, there is resistance on the Treasury's part to injecting significant amounts of common equity because they don't want to own the bank, among other things. So you need another mechanism, and ideally the mechanism would be a good bank/bad bank or a purchase of assets—a way of getting some of the downside risk off the balance sheet. This has been the most effective way essentially to provide contingent capital without creating a capital instrument. As we go forward, I expect to see more combinations of what are effectively capital injections and removal or ring-fencing or insuring troubled assets. I think we will see more of that going forward, but a substantial amount of individual analysis of this particular case led to the particular combination of measures.

President Lacker.

MR. LACKER. I just wanted to follow up on a couple of things that President Fisher asked about and add a bit of color to your response about earnings. There are press reports today coming out of the Bank of America earnings call that suggest that they learned about these losses only in the days following their shareholder vote on December 5 or something like that. These were actually accumulating from just early November, and the erosion of earnings took place over a five-week period at Merrill, so they accreted within the organization. They knew about it to some extent, as it was happening in late November and early December.

In response to Richard's question about a decision tree, the way this played out over the Lehman weekend is notable. This initiative of the two firms was a direct response to hearing a

conclusive, definitive statement from the Secretary about his unwillingness to provide government support for Lehman. So for all that has been said about the handling of the Lehman case, the difference between the orderly resolution of Merrill, given this merger, and what would have transpired had they tried to take a chance on going it alone has to be counted as a beneficial side effect of Lehman—a kind of rare, direct evidence of some incentive effects here.

One thing I am concerned about with these ring-fencing aspects—this is a comment to you, Eric—is that they leave a substantial part of the risk, both upside and some downside, on the books of the institution. So they have the inconvenient property that defraying some of the costs of that risk is part of the calculus of anyone considering injecting new equity in the firm. Some prospective equity investor that takes them a bit out of the hole of this thing is going to be benefiting existing debt holders as well. This debt-overhang problem ought to be the subject of some attention here because ultimately we want to get away from dependence on government support. To some extent, these preferred injections, because they are dilutive, have us in a tipping point kind of thing in which equity holders are scared off by the prospects of future dilutive injections. So we are sort of stuck with just the government as the potential equity source until they come far enough out of it that the tail risk for debt holders is large enough.

I think that deserves some thought. Initially we took a look at an SPV (special purpose vehicle) approach, more like Bear, specifically for this reason—that it would lift the assets out of the institution and help us get more rapidly to a point where we didn't have this debt-overhang problem. My understanding is that there was a concern at Treasury that this should resemble, as closely as possible, the Citi deal, so that it was patterned after that and could be sold as kind of a continuation of the Citi-like structure. This issue about common versus preferred was a surprise in this—in December we learned that there was a real concern about the appearance of B of A's

tangible common equity ratio, which is below that of some top-tier banks like JPMorgan but above that of Citi. They were concerned about the erosion of that, and that was their chief investor-confidence issue that motivated this. Understanding that a little better and what motivates that on the part of the investor community would be useful as well.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Just a quick question. Given the way AIG was structured and the possibilities of being able to pay back the loan with a sale of assets or operating units, and Citicorp is now looking to sell off units, have we given any thought to requiring that, if these things aren't dealt with even in an extended period of time, they would be required to sell off units to pay this back? That would address some of Richard's and my concerns about the enabling process that we are providing for this continued increase in concentration of these resources that are themselves unsound.

CHAIRMAN BERNANKE. Well, I would welcome any assistance from an appropriate governor or supervisor. We have been concerned about Citi from a supervisory perspective for some time. One of the key problems was the difficulty of managing and dealing with risk in such a complex and loosely structured organization. So we—the Federal Reserve, the Federal Reserve Bank of New York—had been pushing Citi to try to rationalize, sell off assets, refocus, and improve risk management and management competency for some time. That wasn't motivated primarily by a concentration issue but was just trying to make Citi a more viable firm. Governor Warsh.

MR. WARSH. A couple of things. First, in the Citi case, as an example, the markets are putting a lot of pressure on them to slim down and sell off assets. I think that, as quickly as they can rightly restore their brand and their business, they and their shareholders will have every

incentive to do so. I think that is already happening. Under the terms of the CPP, negotiated chiefly by the Treasury, the company has the option to get rid of the government ownership at different periods. I think it will be a sign of strength when they are able to do so.

In addition, there is an incentive—and Scott can correct me on the terms—that, if they were to pay back the government by year-end '09, then the options, the warrants in effect, that the government would get would be half what they otherwise would get. So generally under the CPP you will see the strongest of this group looking to distinguish themselves for being stronger, by November/December of this year—to try to say that they are different, that the options and warrants they have given the government will now be reduced because of the redemption feature. But in square answer to your question, there isn't some compulsion that somehow the government needs to be paid back first among the order of preferences for their liquidation.

CHAIRMAN BERNANKE. Any other questions? President Bullard.

MR. BULLARD. Thank you. Just coming back to President Fisher's question: How are we going to play this going forward? Should we expect more deals in the category of Citi and B of A? How are we going to draw the line sometime in 2009 about how to do this?

CHAIRMAN BERNANKE. Well, speaking for myself, I am not going to draw the line somewhere that involves the failure of a firm the size of Bank of America. But that said, we need to find better solutions to this problem, and the new team—Geithner, Summers, and Christina Romer—is very focused on trying to use the available TARP money, which of course was just approved yesterday, plus other funding and other authorities, to develop a more systematic and more comprehensive approach to the banking crisis. We have been trying to support that analytically, and we are certainly also going to support it politically, because it is

very important that this be done both in a consistent and a well-thought-out way and that fiscal authorities take the appropriate responsibility.

So let me just say that I know President Lacker was uncomfortable with this arrangement. I am certainly very uncomfortable with it. But for whatever reason, our system is not working the way it should in order to address the crisis in a quick and timely way. Until the reinforcements arrive, I don't think we have much choice but to try to work with other parts of the government to prevent a financial meltdown. But I am very sympathetic to the view that the faster we can get a comprehensive, appropriate fiscal response—and that is the goal of the new Administration—the better off the country will be and the better off the Federal Reserve will be.

Okay. If there are no other questions, maybe we could turn to the main topic of inflation objectives. Let me make just a couple of very short introductory comments. First of all, obviously, we have talked about this issue many times before. I think in 1995 President Yellen was involved in a debate or a discussion on this topic, so it is an oldie but goodie. The reason that there has been interest—and I feel this interest has welled up to some extent from the Committee as a whole—is that, in the current situation, there are some circumstances that might make an explicit numerical objective more attractive.

There are a number of considerations, but the two I would mention are, first, that we do face, if not deflation, certainly some disinflation; and disinflation, if it proceeds too quickly, can be counterproductive because it raises real interest rates. So to the extent that we can, through expectations management or policy communication, reduce disinflationary pressures, that is a positive. This is one way perhaps to do that. At the same time that we are using every power we have to try to fight this incredible crisis, there are concerns on the other side that, by expanding our balance sheet and the like, we risk inflation increasing in the medium term. It is important

for us to communicate that we will be effective and timely in removing that stimulus, so that we will not have an inflation problem during the exit from our current policies. In that respect, there may be some special features of the current environment that make this topic worth thinking about once again.

Now, we have been through this process a number of times. As I mentioned, we have made some steps in this direction with our communication strategy—our projections, for example, particularly the long-term projections we are planning for January. So I think the question is whether we want to take another step. If so, what should it be? We all agree—and we have discussed it also on numerous occasions—that this has to be managed very carefully from a political perspective. I think we need to go slowly on that front. Don and I and the staff met this morning with some representatives of the Administration. I did not detect any strong opposition on the substance, but they didn't want to incur heavy political costs themselves or use up political capital at the beginning of the Administration. Their view was that whatever we did needed to be very carefully managed to avoid getting blown out of proportion in the political sphere. So we will work very carefully and closely with the Administration in thinking about this, not only in the substantive details but also in terms of the political communication.

One point that was made in the meeting this morning, which may affect our thinking on timing if we do decide to go forward, is that the new President has already appointed one member of the Board and will have two more slots to fill. We should pay attention to the schedule of appointments, and to the extent that appointments by the new President can be known and can be consulted in this process, it might ease the political consideration somewhat. That is something we may have to take into account, and it may somewhat affect our timing.

So we do want to discuss today a bit of the substance of what we would like to do. But I think we should all have a sensitivity—whatever steps we take—to the need to do it very carefully from a political perspective and perhaps think about the extent of the change, the step we want to take, to balance a more dramatic or discrete step against whatever additional costs or risks there might be from a political perspective. I just want to emphasize that and note that it probably suggests that we should go a little more slowly than at the January meeting. Certainly it is a good idea at this point to get a sense of the Committee's preferences to give me guidance in doing my consultation and getting feedback on further steps.

Let me turn now to Brian Madigan to introduce the topic, and then we will do a go-round on this issue. Brian.

MR. MADIGAN.<sup>1</sup> Thanks, Mr. Chairman. You have made some of the points that I was planning on making, so let me turn directly to the questions that the staff circulated for discussion at this meeting. The first question is on the principal benefits and costs of an explicit objective for inflation. One of the key issues in this regard is the consistency of a numerical price objective with the Federal Reserve's dual mandate. Unlike some other central banks, the Federal Reserve is charged with promoting maximum employment as well as price stability. Some FOMC members have previously expressed concerns about this consistency. Thus, one of the questions for your discussion is, Do you see any conflict with the dual mandate in setting an inflation objective?

That question is posed in a somewhat abstract fashion, and your answer to it may depend on how a numerical inflation objective would work in practice—a set of issues that is teed up in question 2. In particular, how would the Committee's conduct of policy be affected by the quantification of its price objective? For example, would the specification of the price objective mean that the Committee would put more weight than at present on deviations of inflation from its objective and less weight on deviations of output and employment from their steady-state values? Or would you anticipate that a numerical price objective would be used primarily as a device to make the Committee's intentions clearer and, thus, to help anchor inflation expectations so that the short-run conduct of policy would be little affected? A related question is the effect of a numerical price objective on the Committee's policy choices when it is concerned about the risks of financial instability. For example, in circumstances in which inflation was projected to remain near target but asset-price developments pointed to incipient financial instability,

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

would the Federal Reserve be inappropriately constrained from using its monetary policy tools to help address the emerging financial instability? Or would you argue that monetary policy tools should be used only in such cases to address the potential effects of the financial instability on output or inflation and, thus, that there is no conflict?

The third question goes further into the general framework for establishing an inflation target. In establishing an objective, do you think that the Federal Reserve should set specific time frames for comparing realized inflation with its target? Would it set timetables for the return of inflation to target following a deviation?

Question 4 raises the issue as to whether the Committee should establish an inflation objective or an objective for a gradually increasing price level. Theoretically, a price-level objective has certain desirable properties. At a basic level, a credible commitment to a price-level objective should ease households' and businesses' long-term planning by eliminating the base drift that can occur under inflation targeting. Moreover, in potentially deflationary circumstances, it might be helpful for the central bank to make clear that any undershoots of the desired price path in the near future would be recouped down the road through above-average inflation that would bring the level of prices back to the desired path. In principle, building in this error correction would help keep medium-term inflation expectations from falling excessively in response to inflation undershoots and thus would help prevent inappropriate increases in real interest rates. However, a number of difficult questions surround the possible establishment of a price-level target. Would the public view such a target as credible? Or would analysts be concerned that the Fed might have difficulty meeting its price-level target or that it might eventually renege on its commitment to permit higher rates of inflation in the future, if necessary to offset temporarily low rates of inflation in the near term? Indeed, you yourselves might be uncomfortable with a policy that intentionally pursues relatively high rates of inflation, even as an offset to previous undershoots. For example, you might be concerned about the implications for economic and financial stability of those temporarily higher rates of inflation partly because you might worry about your ability to subsequently bring inflation back down to its optimal level.

Questions 5, 6, and 7 focus on certain practical aspects of setting an inflation target. Should the objective be framed as a single number or a range? What price index should be used? What inflation buffer, if any, is appropriate? Has the current episode of a very large negative demand shock led you to revise up your views of the appropriate inflation buffer? Alternatively, do you see the present downside risk to output as sufficiently large as to warrant a temporarily higher objective for inflation?

The final question addresses the relationship of a quantitative inflation objective to other aspects of the Committee's communications. At the December meeting, participants generally seemed to agree with the subcommittee's recommendation to collect and publish longer-term projections on a quarterly basis. The SEP (summary of economic projections) questionnaire would ask each participant to "provide your

best assessment of the rate to which each variable would converge over the longer term (say, five to six years from now) in the absence of shocks and assuming appropriate monetary policy.” An important question for today’s discussion is how such projections would relate to a medium-term inflation objective. There are at least two possibilities. In one view, the establishment of a medium-term inflation objective would obviate longer-term projections. In this view, longer-term projections are useful solely because of the information they provide about the Committee’s inflation objective. Indeed, some participants may be concerned that publication of longer-term projections of GDP growth and the unemployment rate could be interpreted incorrectly as implying that the Committee has speed limits on growth and employment. Under an alternative approach, the Committee would both establish a numerical inflation objective and extend its current projections process to include long-term projections for output growth, unemployment, and inflation. The advantage of this approach is that it would allow the Committee to present, in its summary of economic projections, a fully articulated picture of the economic outlook and how the Committee’s conduct of policy was intended to be consistent with closing any output and inflation gaps over time. Thank you, Mr. Chairman. That concludes my prepared remarks.

CHAIRMAN BERNANKE. Thank you, Brian. Are there any questions for Brian? If not, would anyone like to comment on this issue? I see President Yellen. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. This topic, as we have seen in previous discussion, is bedeviled by difficult issues. But in the spirit of the pragmatic responses that we have taken throughout these challenging times, I would like to take a straightforward approach. I am going to organize my remarks around two questions. First, what is the communication problem we now face regarding inflation and inflation expectations? Second, is there a solution that we can implement quickly and readily? I agree with the characterization that you offered, Mr. Chairman: The main communication problem we now face is that most of us anticipate a period that may be quite extended in which inflation will be below the mandate-consistent rate, even with monetary policy pulling out all the stops, especially given that we are at the zero bound. That can result in a pernicious increase in real interest rates. So we do need to communicate very clearly that such a decline in inflation is both unwelcome and undesirable and

that we will do everything possible to return inflation over time toward higher levels consistent with the dual mandate.

But I also agree with your remark that a second problem has developed, and we need to address it, too. There is growing concern that the Fed is printing money with abandon to stimulate the economy, and the combination of trillion dollar deficits and trillions of dollars of money creation can have only one outcome in the long run, which is high inflation that debases the currency. Now, I think this reasoning is completely misguided, but it is out there, and I think we need to consider it because it is dangerous for our credibility as an institution. So I also think we have to say that we are not willing to tolerate very high inflation.

I think uncertainty about what our inflation goals are could be reduced by clear communication about our expected path for the economy and especially inflation. Greater transparency about how we think the future will likely unfold could help anchor inflationary expectations and reduce their dispersion, which is now very large. But our existing FOMC projections, which have the three-year forecast horizon, obviously aren't up to the task. Given the enormous negative shocks to the economy over the past year, our forecast for inflation over the next three years falls quite low, and that may support the deflationary fears of some. In addition, those who are worried about an inflationary surge may argue that a three-year horizon is too short to display the full extent of inflationary consequences of our balance sheet policies. The obvious solution to this problem is to provide economic projections with a longer horizon, and that is exactly what the Subcommittee on Communications recommended in December. Based on the trial run we conducted, these projections, especially with the rich narrative that accompanies them, appear to be useful in conveying important information about the Committee's goals and the strategies for achieving them over time. Especially under current

circumstances, I think there are clear benefits from that approach, and I hope that we can decide to implement the subcommittee's recommendation.

The enunciation of an explicit numerical inflation objective is certainly another possibility. It is one I have long been in favor of doing, but I don't expect the associated gains from transparency and better anchoring of inflation expectations to be a lot larger than those that we would achieve just from extending the forecast horizon. I am concerned that there are a number of subtle issues in setting a numerical objective that I would not be eager to rush through or just sweep aside in the interest of getting this done quickly. Most important, I wouldn't want consideration of those issues to delay us from implementing the extended projections that we had recommended. For example, among the issues I am concerned with, the issue of time horizon for an explicit numerical objective—Brian asked about this—is not straightforward to answer. Brian's questions were all cast in terms of a medium-term objective, whereas in the past this Committee's discussions have always been cast in terms of a long-term goal.

I think that the distinction between long term and medium term is not semantic—it is substantive. From macroanalysis, I consider short term as referring to less than, say, a year or two, medium term as ranging from around two to six years, and long term as anything beyond around six. Articulating a long-term inflation objective would be consistent with our past policy behavior and with, for example, the kind of optimal policy scenarios in recent Bluebooks that show convergence only after around a decade. In contrast, I would interpret a medium-term inflation objective as one that we would be committed to hitting within several years. Even during normal circumstances, this would often require deemphasizing the employment part of our dual mandate. At this time, though, with such a huge adverse shock to navigate through, I don't think a medium-term inflation objective is necessarily even attainable.

There is a view among some economists that stating a medium-term inflation objective would go a long way toward achieving it, but I am not so confident in the power of our words. I think that the inflationary psychology that exists right now is especially delicate and doesn't correspond well to our theoretical models. For example, my sense is that, in present circumstances, many people are really relieved by the recent fall in consumer prices, which has translated into a boost to real wages, after several years of being battered by ever-higher energy and food costs. That makes me skeptical about the desirability of right away setting a temporarily high medium-term objective for inflation. In contrast, if falling prices and wages became entrenched, as in the Great Depression, I believe the psychology would change a lot, and a promise of higher inflation or a price-level target could prove useful. It is something I wouldn't want to see taken off the table. In today's situation, though, I think an approach like that would be confusing and counterproductive. Even if we agree on a long-term horizon for a numerical inflation objective, a lot of important issues remain regarding its formulation and communication.

My preference is now, as it has been for some time, that we have a long-term inflation objective specified in terms of the total PCE price index. We have had success with that in our Monetary Policy Report. As we have discussed previously, I prefer a total measure to a core measure. With respect to a specific number, I think the welfare function is pretty flat over a range of values, but I think an inflation buffer is appropriate because of potential adverse effects of downward nominal wage rigidity, especially in situations with low productivity growth. Now that we have had a couple of brushes with deflation, all in all I have concluded that a long-term numerical inflation objective of 2 percent for the PCE price index would be preferable.

There are process issues about choosing a long-run inflation objective. I believe that we should try, as a group, to arrive at consensus or general agreement among the full set of FOMC participants, not just by a formal vote of the members, which was in essence the decisionmaking process that was proposed in the last Bluebook where this was raised. Consensus among participants is the way in which we usually decide communication issues, because everyone has to live with the consequences. If we do adopt an inflation objective, I think we should revisit it on an annual basis. Of course, if we do reach consensus on a numerical inflation objective, communication of that consensus is very important. I think the objective needs to be announced in the context of a clear and convincing statement of our commitment to both parts of our dual mandate. A single sentence in an FOMC statement, which was what the last Bluebook contained, doesn't seem sufficient to me. I think we would need a special press release, and I think the long-term nature of the inflation objective would have to be clearly explained to the public in the context of the dual mandate. I think we should stress that the implications for near-term economic and financial stability would always be taken into account in deciding how to move toward our inflation objective.

So let me summarize what I see as the way forward. Essentially, I am hopeful that extended projections along the lines recommended by the subcommittee can accomplish most of what we need right now in terms of better anchoring inflation expectations, and I believe that is something we can implement this month. Ideally, sometime perhaps further in the future, we could also formulate an explicit long-term inflation objective to accompany our extended forecasts, and then the forecasts would naturally illuminate the path from the present to our long-run goals. But I wouldn't want to postpone implementing what the subcommittee proposed, which is four-fifths of a loaf, which is our extended projections. I wouldn't want to postpone

that to potentially get a whole loaf with an inflation objective down the road. Finally, I have said in the past, and would say again, that I think guidance on the path of future short-term interest rates that implicitly accompany our quarterly economic projections could be quite helpful in the current circumstances. The market at this point has priced in a fairly steep upward trajectory to the path of the funds rate, at least relative to the Greenbook. So I think there would be value in conducting a trial run on this issue to get a sense of whether that is workable.

CHAIRMAN BERNANKE. Thank you. We have had some work here by the staff about what kind of press release we might do, and the focus has been on explaining how it relates to the dual mandate in some particular situations. So I think this is absolutely right. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. As I have argued at previous meetings, I am in favor of the Committee's establishing a numerical objective for price stability and announcing that objective to the public. My view of this is based on the importance of price stability and the effective functioning of our economy and the financial system. In thinking through the details of how to implement such a numerical goal, I am guided by the important roles that credibility, commitment, and transparency play in our ultimately achieving this goal. I believe that specifying a numerical objective for medium-term inflation would focus our policy discussions and help anchor expectations, preventing them from drifting either too high or too low. By reducing the public's uncertainty about our goal, long-run expectations would become less responsive to changes in short-run inflation. Again, this should help enhance monetary policy's flexibility to respond to economic shocks as we deem appropriate.

Numerical specification appears to have been associated with better-anchored expectations in foreign countries that have adopted it. It seems to have produced a moderate

improvement in monetary policy, and inflation outcomes have improved without negative consequences for output growth. But to be effective, the Committee's stated commitment to the objective must be credible. Transparency can help strengthen the credibility of our stated commitment. Thus, in choosing specifics of how we implement the numerical objective, we should be guided by those that enhance our transparency and credibility in the process. Just saying that we have an objective isn't enough. We need to design mechanisms and take actions that help achieve that objective and make that objective and those mechanisms transparent.

In normal times, when policy is implemented by a fed funds rate target, the path of the target itself can serve as a nominal anchor for the economy. Including the funds rate in the set of variables included in our economic projections would be a way for the Committee to communicate how it planned to achieve its goal. I know there has been some reluctance to do this for fear that it would undermine the Committee's policy flexibility. But reporting the central tendency and range of fourth-quarter averages of funds rates, as we do with the unemployment rate, wouldn't seem to be too constraining and would help inform the public about how we anticipate hitting our goal, thereby raising our credibility and our stated commitment.

However, we are not operating in normal times at the moment. Because our funds rate target is effectively zero and is expected to remain at that level for a while, the funds rate cannot now serve as a nominal anchor. In implementing credit policy, we are operating without a controlling nominal anchor at this point, and this could jeopardize our ability to ensure price stability. Missing our goal could seriously undermine our credibility. Thus, I think it behooves the Committee to do some serious thinking about how we ensure that the current credit policies we are pursuing today don't put price stability seriously at risk in the future. This includes limits on the growth rate of our balance sheet overall or perhaps of individual credit programs. At the

very least, we should be monitoring these and developing metrics to assess the implications of credit policies for the future of price stability. It would be a mistake, I believe, to declare a target and fail to conduct policy consistent with that target or fail to communicate how our current or future policies and actions relate to that target and that intermediate objective for price stability. I don't think words or communication is enough. They need to be linked to actions in some specific way.

In terms of the details of implementation, there are some aspects about the design that I feel more strongly about than others, and some of the choices are interrelated. For example, a longer-term horizon should mean a tighter control range. A longer horizon makes the choice between headline and core less important. A longer horizon in my view means that the choice of core would be less compelling. Regarding which price index, in general I prefer a headline index, even though it is likely to be harder to control than the core in the short run. I prefer headline because I do not want to convey the idea that we are insensitive to the wider array of prices that influence behavior. It also affords us the opportunity to use core in our communications when explaining why we might or might not have policy react to a temporary blip in headline.

This is similar to the practice in other central banks that have announced numerical goals. I note that there is some justification for measures of inflation that include only the sticky price components, as some monetary models suggest that optimal policy should be aimed at stabilizing those sticky prices. But the core measures of inflation do not necessarily correspond to the sticky price sectors. For example, apparel prices are more volatile than food prices. The experience of foreign banks, almost all of which use the CPI, gives us some indication that using the headline CPI can work. The headline CPI is the measure most understood by the public, and

unlike the PCE, it is not revised. I think the fact that it is not revised is very important because it aids transparency. The public and we will be in a better position of assessing whether we have achieved our goal when metrics aren't revised. That seems to me like a salient reason to prefer the CPI over the PCE.

Of course, I think it will be important for us to consider how we will respond and communicate about inevitable misses from our target. Presumably, the larger the miss, the more burdensome the communication requirements should be on us, similar to the requirement, for example, in the United Kingdom for a letter to the Chancellor. Presumably, a miss should be calibrated also to the variability and measurement precision in the underlying inflation measure used. Small deviations from targets should not be considered misses, but large deviations clearly should require more explanation.

Regarding a point goal versus a range, I continue to prefer a point goal. In reality, there is a range around this point goal reflecting the precision with which policymakers can control inflation. This control range will differ depending on the inflation measure we use and the time horizon. However, I would be reluctant to announce such a range as part of our goal unless we could ensure that the public would not interpret this range as a tolerance range. I think that may be a very difficult communication task. For headline CPI, I would be happy with a point target anywhere between 1½ and 2 percent. It is not as critical to me—having a goal is the important part. I think that this is consistent with our goal of price stability—the estimated measurement error of the CPI being a little less than 1 percent—and gives us a margin for reducing the chances of getting into the zero bound situation.

Regarding the time horizon, I feel strongly that we need to specify a time horizon so that we can be held accountable for meeting or missing the goal. If the horizon becomes too long, it

imposes less discipline on the Committee and therefore presumably reduces the benefits of a numerical goal in the first place. So I oppose making the horizon much too long. Because I favor using headline CPI, which is more difficult to control than the core, I am comfortable that something like a three-year horizon is appropriate and achievable, given the typical shocks that hit the economy and the volatility of the CPI measure. If the Committee prefers a shorter horizon, that might be a reason to think more precisely about the core.

Regarding targeting the price level versus inflation—price-level targeting I think has some attractive features, especially when we are near the zero bound, as we have talked about in the past couple of meetings. We could operationalize this by defining an average inflation goal over the time period so that, if inflation increases above this average for a time, we would need to bring inflation below the average for a time in order to achieve our goal. But I think it would be difficult to communicate price-level targeting to the public and get them to understand what we are doing and why we are doing it. The increased transparency of it persuades me that, at least as a practical matter, stating our objectives in terms of an inflation objective is probably preferable.

Finally, I am in favor of the Committee's including the longer-term projections for GDP growth and unemployment in its projections. These would be interpreted as steady-state values for the variables, and I think that would be a good thing. Presumably, in most situations our inflation goal will be our long-term projection for inflation. As I said earlier, I am in favor of the Committee's including forecasts for our target policy rates as well in these projections. Again, that would be a form of communication. The range and central tendency of these variables, in let's say the fourth quarter of each year, would give the public information on how we are

planning to meet our inflation goal. I believe this would increase the benefits of stating a numerical goal by making our commitment to that goal more credible.

Mr. Chairman, I also recognize the political sensitivities in this matter and certainly am willing to defer to your judgment. However, I do think that dragging the process out too slowly may have some unintended consequences and perhaps lead us to lose some of the near-term benefits that having a goal might provide us. If you conclude that we have a window of opportunity here, both politically and practically, I would urge you that we not let this window close on us. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I ultimately favor an inflation target, but I am concerned that this may not be the right time. Nevertheless, I am open-minded. First, I do ultimately favor an explicit inflation guideline. Inflation is a monetary phenomenon. How the central bank responds to everything around it determines the range of inflation outcomes. Once inflation fell to a range closer to price stability in the 1990s—as we have already mentioned, we had this debate in 1995—it seemed reasonable to me as a monetary economist that clarifying our inflation objective would improve the public's expectations and the effectiveness of our policies. Because trend growth and natural rates of unemployment are determined by technology and the structure of the economy, we cannot similarly dictate their steady-state levels. We can and do provide information on that in our longer-term forecasts.

Despite my preference for an explicit guideline, I worry that now might not be a good time to adopt an explicit target. I can be convinced otherwise, but I think the dangers might outweigh the likely benefits. I think that many would see such a move as overly opportunistic. Our intentions may be questioned, and these criticisms could undermine our credibility. I am not

concerned merely about the reaction of political officials who may not understand the value of clear inflation goals. Earlier this week we hosted a group of academic economists who would normally be very sympathetic to this suggestion. But as the discussion turned to the reported arguments that adopting an inflation target might help us with our current policy dilemmas, there was great resistance, and I was really quite surprised. Many thought this was taking advantage of a crisis without working to build the necessary political consensus. Some also thought it would make the Fed look out of touch. The debate over inflation targeting is not fresh. As you mentioned earlier, it is a long-standing debate, and it seems somewhat orthogonal to the financial crisis. At a minimum, there is a mountain of effort and persuasion required to pull this off successfully. Now, any reluctance I have about setting an explicit inflation target is due simply to the current difficult environment. If we can overcome this—and, Mr. Chairman, I would rely on your judgment there as well that this has reasonable prospects of being successful—I would favor this proposal.

Turning to the other questions circulated to the Committee, I don't see those as generating substantial concerns, at least from my standpoint. For example, I don't believe that our dual mandate stands in the way of adopting an explicit numerical price objective. Most of my thinking on this is consistent with quadratic loss function analysis not much different from the Bluebook discussion before each meeting. The key elements are an output-like gap and an inflation deviation from target. The policy responses implied by such a loss function have a partial adjustment of inflation toward its target value. The rate of adjustment will depend on the size of the output gap in obvious ways. If we adopt an explicit inflation target, we can find straightforward language to communicate how these adjustments respect our dual mandate responsibilities, in my opinion.

How does this affect the conduct of monetary policy? Well, the loss function approach indicates that we would balance any conflicts within our dual mandate goals. This is not that different from the current situation, in which we have implicitly agreed on an inflation range, at least according to our longer-term forecasts. With regard to financial stability considerations, most of the time it would be enough to say that policy takes into consideration financial market pricing and volatility through the way in which they influence the evolution of the economy and, hence, our dual mandate goals. Of course, there can be regime-switching or nonlinear financial risks. We are certainly experiencing those. In those events, we would need to balance more considerations. For me, this issue does not seem any more relevant for the inflation target discussion than our other policy goals.

In terms of timing, it is probably useful to adopt the medium-term language and try to define the elastic ways it will be used—that is, in a state-contingent way. I would provide an average time frame for medium term, such as three to four years. I would then use some language based on the loss function framework to indicate that the size of the output gap would tend to influence the actual timing of medium term.

Regarding price-level targeting, I am not convinced that it is a better tool for minimizing the costs associated with inflation and deflation, and the temptation for the Committee not to follow through when it is uncomfortable to do so would be large. That would be a big credibility hit. On the particular numbers, I would favor using the total PCE index at 2 percent. That seems to be more likely to avoid zero lower bound issues. I agree with President Plosser. I think just finding an explicit goal would provide most of the benefits, not so much the number, as long as it is not too large. I would prefer a target around which we behave approximately symmetrically. I don't want us to panic over deflation every time we move under the target. Now, my staff has

talked to me quite a lot about the fact that optimal policy could imply some asymmetry with respect to inflation being above and below the target. For example, we might need to be more aggressive fighting below-target inflation, as we are today, because the costs of a moderate deviation in that direction could be higher than those of a comparable deviation above the target. In that case, the guiding principle is that optimal policy should seek to equalize pain above and below target, not the time spent above and below. This is a clever idea, but this equilibrium relies heavily on rational expectations and full credibility with the public, and I am just a bit skeptical of that. To conclude, my bottom line is that I like an explicit inflation guideline at the right time. I am not completely sold that this is the right time, but I am open-minded. If you have a reasonable expectation or assurance that this could be pulled off, I would favor it. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I, too, am in favor of an explicit inflation target, and I think now might be a fairly good time to embark on this. Echoing your opening comments, I think today's expectations are extremely fluid. Should they become entrenched, they will dictate inflation over the next five years and may lead us into a particular regime, one that involves a side of the two-sided risk that we face—either a Japanese-style deflation or a 1970s-style resurgence of a volatile inflation environment. So I think naming an inflation target now would help a lot to avoid both of those possibilities. If we can exit the current crisis with inflation at target, we will set up the next long expansion along the lines of the 1990s expansion that increased incomes substantially in the United States. I think that should be our goal, even though we are in the heart of a financial crisis right now.

My reading of the foreign experience is that it has been extremely valuable for countries whose monetary policies were somehow at a crossroads—they had a lot of problems in the past, often with managing exchange rates, and then they were able to move to inflation targeting and get good results from that. That hasn't been the case for the United States, but now may be a different time. You might think that we are at a crossroads right now and that we could lose control of the inflation situation, either on the high side or the low side, during 2009 and therefore we might want to take the step at this moment.

Let me talk for just a minute about interference with the dual mandate. My view on inflation targeting is that this point is the most misunderstood in the public domain and actually also in some places inside the central bank establishment. The whole point, at least in my view, is that anchoring expectations is part of the optimal policy from the point of view of a typical household in the economy. That is the Woodford analysis of inflation targeting. You name your inflation target exactly because this is the optimal policy from the utility point of view of a typical household in the economy. It does not mean that you ignore any part of the equilibrium of the economy. It means that this is the best you can do with monetary policy in terms of shaping an equilibrium, which delivers the most to the median household in the economy. So if we are able to communicate that and get that across in a public debate, that would go a long way because, really, everyone should be for inflation targeting from that point of view.

There is a question here about excessive declines in inflation. I guess I am maybe more concerned than some of my colleagues on the Committee here, but I do see this as a real risk. I might mention that five-year TIPS are at minus 35 basis points today. That is the inflation rate implied by the five-year TIPS. I know there may be distortions in this market, but that number is making me nervous. If that actually materializes—that is, we have declines in prices over the

next five years—I think there is no question that we will be in a Japanese-style equilibrium for the foreseeable future. I am very concerned about that possibility, and maybe the inflation target would help us on that.

As far as the FOMC's conduct of monetary policy, I don't think actual policy conduct would change that much because I think implicit inflation targeting is going on inside the Committee, and much of the discussion about monetary policy is based on implicit inflation targeting. This, to me, is all about communicating to the private sector in a very turbulent time what it is we are trying to do. Also, I don't see any hindrance to our ability to address financial stability issues. In fact, we are addressing financial stability issues right now, and we are saying that, because we can reverse programs later on, the inflationary effect is minimal.

I don't have strong opinions on the time frame. I think it should be a medium-term target. We should be looking at average inflation over several years. I do think that setting a price-level target might work in some models that depend heavily on rational expectations. As much as I love those models, I think they may not be ready for prime time as far as actual policy is concerned. So going to a price-level target at this juncture is just too difficult, and it would be difficult to maintain credibility if we went in that direction.

As far as a single number or a range, I have always liked a single number. For me, a range doesn't make any sense. I think it implies that you have a region of indifference about inflation—that inflation in a certain range is all the same—and I don't think that is what we really think. So I prefer a point for the objective. As far as which basket, I would prefer the headline CPI. As much as possible you want to get to prices that households actually pay. That came up all through 2009, when we were emphasizing core inflation and other prices were

moving radically. That harms our credibility. Also, the CPI is not revised later. Core would still be used as a gauge, but that is not the ultimate objective.

For the numerical value of the target, I think inflation is quite distortionary for the economy. That is my reading of the literature on the topic. Not least among the many types of distortions that occur is significant interaction with the tax code, which is that the tax code is necessarily imperfectly indexed to inflation. So when you get inflation, you are changing taxes all around. We know that that is distortionary in the economy, and it is an unintended consequence. I would suggest 1.5 percent as the target.

One question was whether we should have a higher inflation objective in the medium term, saying that we would come down to a lower level of inflation at some point further in the future. I would really not want to do that. I think that is playing with fire. It seems to me that a press release that says something like that might ignite exactly the 1970s-style of inflation, and I wouldn't want to go in that direction. It seems to me also to be opposite to the general idea of inflation targeting, which is to anchor expectations and to reassure the private sector that you are not going to shift inflation around on them unexpectedly. I have a few more comments, but in the interest of time, I am going to stop my comments here. Thank you very much.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Also in the interest of time, I'll be brief. We have said a lot about this subject—it is hard to picture much that hasn't been said. Yes, I do believe that we should adopt a specific numerical objective for inflation. We should be clear why and what we're doing. I just can't help but start thinking about this question from the point of view of our taking actions over time in a repeatable process that generates a consistent pattern of behavior. That point of view leads you to certain answers to some of these questions. From that point of view,

whatever we do and whatever we imagine for that policy rule, surely it generates an average rate of inflation. So the question before us is, Why not reveal that? Why not state that? Why not figure out what that is and state that to people?

Now, contrast that with some suggestions and some discussions that seem to have the flavor of let's state now what we think, on a one-shot basis, that inflation is going to be from 2010 to 2015. I think of this as announcing a consistent pattern of behavior that we think we're sticking to. That approach has a real advantage over the long-term projections approach. If we're going to be doing long-term projections every quarter, I don't see how we avoid the problem we've had with the third-year-of-the-projection approach to signaling our inflation intentions. Every quarter that projection could come out differently, and that's going to be an acute problem in the coming months when the composition of the Committee changes, obviously. How does it relate to our dual mandate? I agree with Jim. It's no problem. Let's imagine that we're following a pattern of behavior that we view as optimal with respect to our dual mandate. Surely that generates an average rate of inflation. Why not announce that? If we announce that, it does not have any implications for our pursuit of our dual mandate.

The time frame is sort of a separate question, I think. This is a question for what we say in any given meeting or in any given quarter about how we view the economy evolving over the next couple of years—what we view as our outlook. How we view inflation is likely to come back to what we view as its long-run average, and, gosh, that could change. It could be quick in some instances; it could be longer in some instances. I don't see any reason to pin ourselves down to a particular time horizon.

How would this change the way the Committee does its work? Well, I think it would inevitably change how it communicates. I think we'd pay a little more attention to inflation. In

particular, we'd tend to underemphasize language that treats inflation as an autonomous development in the economy (which we tend to use too much now), and we'd use more often language that implies our responsibility for the path inflation is likely to take. I think we would serve ourselves best by not changing our inflation target very much at all and communicating about it in a way that conveys that we intend to revisit this only very, very rarely. I do not think this would interfere with our ability to deal with financial stability. It is hard to picture how allowing uncertainty about our inflation objectives would help with financial stability. If anything, it seems as though the opposite would be true, especially given the experience in the 1970s. About these other questions, a single number to me seems obviously preferable. Total PCE and 1½ percent would be my choices. That concludes my remarks, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you very much. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. For many years now, I have believed that providing the public with an explicit numerical inflation objective would enhance the effectiveness of monetary policy for a variety of reasons. One of the principal benefits would be an improvement in communication, thereby enhancing the FOMC's ability to fulfill both of our mandates. I believe that an explicit numerical inflation objective would help to anchor inflation expectations, and strongly anchored inflation expectations should improve the efficiency of wage- and price-setting decisions and lead to better economic performance. Although the research findings are not conclusive, I think that foreign central banks operating with explicit numerical objectives have, on balance, more firmly anchored inflation expectations than have other central banks. Anchoring inflation expectations also could be especially crucial during current economic conditions, but my support for specifying a numerical objective is based on my regard for its value in all circumstances.

In principle, establishing an explicit numerical inflation objective need not diminish or assign less weight to our objective for maximum employment. Rather, establishing a numerical inflation objective should help us achieve our employment goal over the long run. Because the Committee has already reached a broad consensus on an implicit inflation objective, announcing an explicit inflation objective should not materially change the way we respond to economic conditions. However, an explicit inflation objective may be most valuable in times when achieving it appears to be more difficult. Right now, as several have mentioned, people are concerned both about the possibilities for future deflation and future inflation. The existence of an explicit commitment would enable us to explain more clearly to the public what we are trying to accomplish and how we intend to do so. It would require us to explain how we plan to achieve our objective when we see actual and projected inflation deviating from our objective.

I favor an objective expressed in terms of an average over the medium term of, say, three to five years, but the communication value I see is not that tightly connected to a specific time frame. Evidence of successful inflation targeting should be revealed in a closer alignment of inflation expectations with the inflation objective, particularly in the case of the longer-term horizon. My preference for a total versus core inflation measure depends on the time frame chosen, but a longer-term target specified in terms of total CPI inflation seems like the best option to me. I favor the CPI because it is not subject to revision, and many contracts are specified in terms of the CPI.

Concerning the issue of an inflation objective versus a price-level objective, I prefer the inflation objective. I am more persuaded by having at least the experience of some foreign central banks in implementing inflation targets than by purely theoretical arguments for price-level targeting. I think our objective should be stated in terms of a number with an acceptable range around that number. While I prefer the CPI, I recognize that the PCE measure has become the focus

of our attention, and I have been on record as suggesting an objective for PCE inflation of 1¾ percent. But in light of our recent experience, I am now leaning toward an objective for total PCE inflation of 2 percent to provide a larger buffer against zero lower bound events. I would provide a range around that number of plus or minus 1 percent to let the public know that some variation in actual inflation is acceptable during that time frame. But, again, the size of that range would depend on the horizon that we select. Recognizing our dual mandate, I think publishing our longer-term growth and employment projections would remain a valuable part of our communication strategy.

So in conclusion, I do regard the establishment of an explicit numerical inflation objective as a natural step forward in our Committee's progress toward better communications. I recognize, however, that gaining support for such a framework at this time could be challenging. I would feel much better about launching this endeavor if I thought that this step in our communication strategy would be welcomed by the Congress and the Administration rather than resisted, but I will leave managing the politics up to you, Mr. Chairman. As you said clearly in your opening comments, you are well attuned to the political environment. I also agree, though, with President Yellen that extending the Committee's economic projection horizon buys us a lot of what we are trying to achieve without some of the political risk. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. As a general statement, I think I am on record as having supported and continuing to support an inflation objective. A numeric inflation objective, as we have talked about before, would help communicate the Federal Reserve's commitment to price stability. Of course, that said, we all realize that in the past this Committee was reluctant to push for its implementation in part because such an articulation of price stability mandate needs

strong support from the Congress. In the current circumstances, this support may be likely; but in the longer term, if inflation were to require strong tightening policy, I think support would fade quickly away. Also, it may be difficult to make the case for quantification of only one of the mandates as we have talked about before, thus making this action, if we were to move toward an explicit target, a temporary action just by circumstance. I would be opposed to establishing a numerical inflation objective at this time if it were only a temporary measure in response to the current crisis.

In my view, if we go this way, we need clear congressional agreement, at least in a resolution, and the mandate should be considered by all parties as permanent. I see little benefit in adopting a temporary numerical objective. Such an approach would likely undermine our credibility in establishing a permanent objective at a future date. If by circumstances or if we think the odds are fairly high that an explicit numeric objective at this time would be temporary, I believe we would be better served by focusing instead on our communication strategy, as President Yellen has outlined—at this time, for example, clearly indicating that inflation below 1 or some percent was unacceptable and would call for aggressive policy action, as we have already taken.

In terms of implementation of a permanent numerical objective, though, I would favor a medium-term range of 1 to 3 percent. I would prefer overall CPI but certainly can live with PCE as we have been doing at this time, with an explicit statement that we are targeting the midpoint of 2 percent. That makes it a target, and the range gives some maneuvering room, but we are headed always toward 2 percent. This is as other central banks have done. I would say I am not in favor of price-level targeting at all, in part because of the difficulty of communicating such an approach to the public in any successful way. If, however, we are going to decide to go down this road toward inflation targeting or even price targeting, I guess I would back off this idea of longer-term

projections just because I think of the added confusion that it would perhaps cause. I will leave my comments at that. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, President Hoenig. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, I have long favored adoption of inflation targeting, and as with the policies to address “too big to fail,” it appears to me that the time has finally come to go down this path. I think the arguments in favor of inflation targeting are by now pretty familiar. I don’t view it as a significant departure from the way we conduct policy in normal circumstances. Obviously, the past 18 months have not been normal circumstances. So in many ways, I think it is institutionalizing and making explicit things we have typically done in any event. I do think inflation targeting has the potential on the margin to improve accountability, to address the potential time-inconsistency problem, and to improve communication. I am struck by the fact that, if we had an explicit inflation target, it would probably help in the current circumstances, where there is, indeed, a good deal of concern both inside the organization and externally about the potential for deflation. I think it would have also helped six months ago, when there was a good deal of concern that inflation was getting away from us and getting out of hand because of what was happening with commodity prices and so forth. So I think it would be valuable in all of those regards, but I do not want to oversell it. I think, as I said, it is largely institutionalizing the way we have conducted policy for several years now under normal circumstances.

I will certainly leave to you the political judgment as to how to best proceed and what the timing ought to be. Let me just make a few other comments here. As several others have said, Jim and Jeff among them, I do not see any problem on the substantive level with adopting an inflation target and the dual mandate. In the long run, sustainable growth and price stability go hand in hand, and indeed I think we can explain that. I would have a mild preference for adopting a range rather

than a point estimate just for credibility reasons. If you adopt a single numerical target, I think people are going to say to themselves, “Well, there is either an implicit range around that or their ability to hit that number right on the button is low.” But I do not think that is a show stopper, quite honestly, one way or the other. I do not worry about our ability to respond to financial crises. I think the central bank always has the flexibility and the responsibility to respond to those situations when appropriate, and even preemptively, if we see something in asset prices that the Committee judges at the time to require a response on our part.

I do think an important issue, and one on which personally I would like to see more evidence and more work done, is what the appropriate time horizon is. Presumably we are going to conduct policy as we have been to achieve our objective of price stability over time. If the time horizon is too short, you run the risk of excessive volatility in interest rates, assuming that’s your instrument but perhaps even if not. If the time horizon is too long, it is meaningless. My guess is that we are talking about something like four or five years, but I would like to see more evidence on that particular subject.

I do have a preference—it is not a strong one—for the PCE index only because I think that is a better measure of inflation and the one we ought to be paying attention to. With regard to the numerical specification, I have long favored something like the European Central Bank target of 2 percent or a little under. That gives us some room on the downside. But having been around this Committee for quite a while and observing the great concern with deflation not only in the current circumstances but back earlier this decade when the economy was, in fact, expanding, I think we do need to recognize that and be careful that whatever number or range we pick is not too low. After all, most of the benefits of selecting and achieving an inflation target come from maintaining

inflation at a stable, low level. It probably does not matter very much whether the number is  $1\frac{1}{2}$ , 2, or even  $2\frac{1}{2}$ , as long as it is low and as long as we achieve it. Thank you.

CHAIRMAN BERNANKE. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. Like President Evans, I met with my academic advisory council this last week. It is composed of a variety of academic economists from around Boston. As you might expect, there were widely divergent views on the advisability of inflation targeting and the nature of what it should look like, but I nonetheless think that some of the observations they made were of interest. First, those who thought that a target was a good idea thought the lower bound of that target should be 2 percent. That's higher than they would have advocated previously and certainly higher than many members of the FOMC have advocated. Second, those who thought a target was a good idea argued for a large range, at least 100 basis points, reflecting the difficulty of actually remaining in our target range and, again, larger than I think many have discussed in the past. Third, many felt that we would have a difficult time explaining to the public our target because we might have great difficulty hitting that target and it might make the Federal Reserve look ineffectual. So there was a surprising concern about actually moving toward a target at this time.

My own view is that a target may make sense to highlight that we will take actions necessary to avoid deflation and that we will remove the accommodation quickly enough that inflation will not be a significant problem when the economy does eventually recover. I do have some caveats. First, as I have mentioned before, this is the second time this decade we have been concerned about a zero lower bound, and it is significantly limiting our actions at this time. We should take into account the cost of being in this position too often, and I think that argues for a higher target rate than I would have argued for two years ago. At a minimum, the middle of the

range should start with a 2, not a 1. Second, as we experiment with a target and given the variability we have seen in all inflation measures, we should start with a larger range than I would have argued for a few years ago, probably 100 basis points is reasonable. Third, just by observing where inflation has actually been over the last decade, it seems as though a revealed preference for inflation ranges has been roughly 1½ to 2½ percent. I think an open question is whether our preferences should change based on hitting the lower bound this time.

In terms of the other questions, I will just be very brief. Like others, I think it will be very difficult to have a price-level objective. I just think it is too difficult to communicate. It will be a big enough challenge to explain inflation targeting. So I would not be in favor of moving to a price-level objective. Second, the Congress may ask that we also provide a target for the unemployment rate if we adopt an explicit inflation target, and we should ask ourselves whether that is a tradeoff we are going to be willing to make. Finally, regarding communication, most of our communication recently has been on the PCE measure. I think changing as few things as possible probably makes sense. So I would be an advocate for using the total PCE. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. It is always desirable to have inflation expectations well anchored and better anchored, and I think the benefits of having more firmly anchored inflation expectations are higher now than they have been at any time I can think of at least in the recent past. As you remarked, Mr. Chairman, on the one hand we face the threat of prolonged disinflation and weakness with a potential adverse feedback loop with declining inflation expectations raising real rates and feeding economic weakness, which in turn further erodes inflation expectations; on the other hand, we face concerns about the longer-term potential inflationary effects of our large operations to get the credit markets moving. I do think that being

clearer about where we think inflation is going over the long run and where it should go over the long run can contribute to anchoring these expectations and, by anchoring the expectations better, will support meeting the dual mandate, especially in the current situation.

We need to be careful not to expect very substantial, huge gains by what we do in terms of anchoring inflation expectations. Expectations are already well anchored in the United States. I thought the memo on the international experience was interesting in the sense that you could see this last spring and summer when, in the context of rising oil and commodity prices, longer-term expectations in the United States were anchored no worse and in some cases better than expectations in inflation-targeting economies. So I do not think we have a big problem right now, but there is a threat of a bigger problem. If, as seems likely, inflation and output are weak over an extended period, probably the most important question that we will face about expectations and credibility will be whether we can actually get inflation up before many years have passed, not whether we want to raise inflation and output. Still there are enough studies about reactions to incoming data in inflation-targeting countries and the dispersion of inflation expectations to suggest that there are gains. There will be marginal gains in anchoring inflation expectations if we are more explicit, and as I said, I think that is particularly important in the current situation.

I think we should strive to specify an objective in a way that does not materially affect the conduct of policy. I do not have significant concerns about the way policy has been conducted over the past several decades. I would not want to sacrifice flexibility or put less emphasis on the output gap. I agree that the better expectations are tied down, the more scope we should have to pay attention to other objectives. But we need to remember to take advantage of that scope. I thought policy last spring and summer was appropriate, and the question I have asked myself is whether it would have been harder to ease as much as we did last spring or hold off tightening as inflation rose

last summer if we had had an inflation objective. In concept it should have been easier, but I think we need to be careful—if we are more explicit—that we retain our flexibility. I remind ourselves that the most frequent criticism we get now is that we paid too much attention to the forecast for consumer price inflation in 2003-04, allowing a housing and credit bubble to develop. I am not convinced that we should lean against the wind of asset bubbles with monetary policy, but we do need to be careful that an inflation objective does not constrain our ability to address financial instability when necessary.

There is a whole range of alternatives we could choose to be more explicit about our inflation objective. The first would be the extended projections that the subcommittee endorsed a couple of months ago—the range and central tendency of individual views. Second would be the Committee's voting on a long-run inflation objective: What are we aiming for over the medium to long run? Where should inflation return to after it deviates from the objective, but with no pre-commitment on the horizon? A third alternative would be one that has what I would call an inflation target that has a medium-term priority and that the Committee expects to achieve within a couple of years. This is what President Plosser was talking about.

I think that the extended projections seem like an obvious step, a natural evolution. They will give us a lot of the advantages. They will give us reference points for talking about the fact that inflation might be lower than we would like and why we will be acting to make it go higher. I do think that getting to a vote on the longer-run inflation objective—not the medium-term inflation target but the longer-run objective—eventually would have some advantages over just the extended forecast. It is a better sense of commitment and clarity. It will help in Committee discussion if we are all talking about policy to get to the same objective, and if we are not specific about the time frame, we should have enough flexibility to avoid undue constraints on our behavior.

Then how far to go and when to go depend importantly on building the case, as President Evans remarked, both in the public and in the political environment. We need to convince people that this is consistent with the dual mandate. So I think the speed with which we move through a potentially staged process would be dependent, Mr. Chairman, on your sense of where the political process is, where it is going, and what the costs and benefits are.

On the specific points, I would go for a point rather than a range. I would go for something around 2 percent on the PCE index. The range to me has difficult properties about how we would react. If we said around some number, I think we could react very little to small deviations and more to larger deviations, and that makes some sense. I would make it PCE. That is what we have been dealing with. It is a more comprehensive measure. Even if we moved toward a more explicit inflation objective that the Committee voted on, I would continue with the long-run projections. I think it is important to emphasize them in our information to the public about what we think the long-run properties of the economy are, and they emphasize the dual mandate. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I have gotten a lot out of the discussion today. I have to say that I am still really forming my opinion both on some of the more important arguments in favor of this or that and on the details. But I think what I can best do at this point is just to give you a sense of how I am leaning, which I think is broadly in line with what many of the members have already stated. I favor an explicit target. I think going beyond simply the approach of extending the forecast makes sense. I favor an inflation objective versus a price-level approach. I think the price-level approach, particularly for the broad public, will be more difficult to communicate.

I can see arguments on both sides of a point versus a range. On balance, I favor a point forecast of 2 percent, a round number. For many observers of our policy, some range would be understood, and I do like a range from a management point of view because it gives us a better chance of hitting it. But from the point of view of clarity with the general public, I could be convinced that a point, as long as it is a round number, would make sense.

I tend to view the approach that I am laying out as really espousing what I call a “serious guiding principle,” which allows for pragmatic consideration of conditions at any given time and, therefore, does preserve some flexibility, as Governor Kohn emphasized. Of course, if it is too soft a guiding principle, then it is not taken seriously. It is not credible. So I think we want to communicate it so that it is understood that, as a guiding principle, it is to be taken very seriously. I do not see this in conflict with the dual mandate. I think we would be communicating a guiding principle for the inflation part of our dual mandate. I tend to favor a medium-term horizon—three to five years. I think that is a credible horizon. I also favor a headline number. Because we have been using the PCE measure, although it requires a bit more education for at least the broad public, I think headline PCE is a good approach. But I would certainly be easily convinced to go with headline CPI.

To anchor expectations on the part of households, as President Bullard discussed, I think the approach needs to be one of simplicity. One test that I would use would be to find out if the average informed citizen can recite our policy or our approach back to us. That is why I favor a round number of 2 percent—because it is memorable and because I think the average person would get it. What we are doing here really is formalizing a consensus that already exists. In that respect I find myself broadly in favor of what most have emphasized. I do like a staged approach to deal with the politics of the matter. Under the current circumstances, there is such sensitivity out in the political

world that it may require a staged approach. I agree with the comment made earlier, Mr. Chairman, that you would be in the best position to judge how to stage it. So as I said earlier, I am still forming my opinion, but those are my leanings at this point. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher—back from the Galapagos, by the way.

MR. FISHER. Yes, and where you can see how creative destruction works over very prolonged periods, Mr. Chairman. I recommend it to anybody who would want to truly get away from what we constantly worry about.

Mr. Chairman, you have heard a broad range of views, and that broad range of views indicates the difficulty of reaching a decision in short order here. In terms of my own preferences, from a theoretical standpoint rather than go through each particular aspect, I would basically ask that I be recorded almost point by point as President Plosser early on articulated. We are in exact agreement from the standpoint of what we might seek to achieve theoretically. I was taken by President Evans's comments, however, in terms of the validity of ultimately having a price objective, but his concern that now is not a good time. I was particularly struck by his phrase that this exercise may be orthogonal, as he put it, to the current financial crisis. The only disagreement I have with President Plosser is that issue of timing, and I would probably say that, unlike President Evans of Chicago, I am not open-minded on the subject. Let me explain.

I do not believe the issue right now is the political environment. We went through this argument before in 2007. My views are clearly recorded. I was quite concerned about the politics of this, given my background and given that I am neither an academic nor as intellectually potent as the rest of the people around this table or on this video screen. I worry about those things. What I worry about most, though, is the last time we discussed this we were basically fiddling while Rome

was beginning to burn, and I worry about the market perception of our focusing on this issue at this time. Let me be blunt from the standpoint of what we have been able to achieve.

We basically are working our way out of a deep end zone, just to use a football analogy. Charlie will appreciate this since they decimated the Dallas Cowboys. We have fumbled sometimes, and we have been sacked a few times, but I think we are beginning to build street credibility, and that street credibility comes from the evolution of our understanding of these issues. As President Lacker and you said earlier in discussing the Bank of America transaction or the new support program, we are learning more as we go on. I think we have more respect in the marketplace. I think the New York Desk is gaining—not that they did not have credibility before—and we have achieved a great deal in terms of these new programs we are undertaking. We have a financial crisis upon us. I do not believe that has been alleviated, and I think we are just at the beginning of the game. We are deep in the end zone. We are beginning to work our way down the field, and I worry that being viewed as engaging in a theoretical discussion, which has lots of niceties to it and a lot of attraction to it ultimately, may just make it look as though we are not keeping our eye on the ball or keeping to our game plan.

So I would argue very strongly from my sense of those with whom I talk in the marketplace that this is not a good time to proceed with this endeavor. We can think about it. I think the discussion today has been very thorough. Again, I line up with President Plosser in terms of what I would ultimately like to do. I do not have much of a difference of view there. But I do not think, Mr. Chairman, that this is a good time to proceed from a financial market perspective and the way we are being perceived in the outside world, whatever the validities may be; and I do not think anybody can doubt, certainly on the hawkish side, my credentials on this issue of inflation, even to the point of standing all by myself against a much wiser majority. I am deeply concerned about the

deflationary gearing that we are encountering right now. But I do not think it is the time to talk about this, and I think we should just keep our eye on the ball of what we have been doing and basically running the business that we are running the way we are running it currently.

I want to conclude with just underscoring another comment by President Plosser, which is that words and communication are not enough. Our actions speak infinitely louder than our words, and right now I think our actions should be devoted to getting ourselves out of the mess we find ourselves in. I think we are making progress on that front, and I do not want to be distracted from it. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. First Vice President Cumming.

MS. CUMMING. Thank you, Mr. Chairman. I believe it would be very helpful under the current circumstances to adopt an explicit numerical objective for medium-term inflation of 2 percent for PCE inflation, given the real risk of deflation and the likelihood that deflation fears will become an important part of the public's concerns about the steep global downturn that we are now in. In some ways, as many have noted, it would be a small step. The analyst community and much of the public already believe that we have an implicit objective of 1½ to 2 percent, and our effective reaction function probably also reflects that. We could emphasize that continuity with our past practice if we adopt such an objective. But it is also a large step, as the Chairman himself noted at the start of the discussion. The implications of such an explicit objective in the current circumstances for our behavior are very important and not necessarily easy to explain—for example, that we would be willing to accept some inflation above our objective for some time—and really requires a carefully crafted speech or even a series of speeches, as well as that political dialogue. I note again that, much as the Chairman's speech earlier this week really laid out what our current monetary strategy is, such a speech or series of speeches could be very useful.

What would give that kind of education campaign real power is a unified FOMC behind the speech. Being unified means a wholehearted endorsement and a consistent message from all of us about the explicit objective, right down to the chosen number. The normal, healthy debate during benign times can produce great anxiety in stressful times like these, and it would be a large step because, to be effective, this move could not be portrayed as temporary or until the crisis seems to lift. It would be a real advance in our practice, consistent with where we have been headed to date—others have noted this in a discussion earlier on this same topic—and also where overall central bank practice has been heading. Of course, it would be correct to evaluate the success of such an objective sometime down the road.

I would also like to see us keep it simple for the most effective communication, as many have noted. So I would see that as a medium-term objective of around 2 percent for the PCE; inflation at a flexible horizon, and here we would be thinking on the longer end of medium, as President Yellen described it, maybe leading into the longer term; and overall inflation, not core. We do have a lot invested in PCE as what we believe is the right inflation measure, and I would advise continuing. We would have an opportunity to relate that PCE inflation target to an equivalent in the CPI—for example, a CPI of 2½ percent with a PCE inflation target of 2.

If we go ahead with long-term projections, which I would recommend, an explicit objective obviates the need for participants' long-term forecasts of inflation because in the medium term we would all be working toward and would expect to meet the shared objective. In such a framework, though, participants' views on the long-run values of GDP growth and unemployment would be of great use to the public. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. I will keep my comments short mostly because I do not think my views have changed materially since we last took up this discussion. On the merits, I remain skeptical of the benefits of establishing an explicit inflation objective, and in terms of timing, I think the timing is really quite poor at this moment. Part of the reason for the skepticism is that I do not believe an inflation target would have or should have changed our conduct of policy during this period or most other periods that I could envision. In substance, I think that establishing the objective is of far less consequence than the conduct of policy and the actions of this body. Our credibility and commitment come from those actions—come from our reaction function to changing circumstances—far more than from what we say, and I think that is particularly true in times like this. I am convinced that the benefits of an inflation objective are small relative to the prudent steps that we have taken in terms of our longer-run projections—along the lines that President Yellen mentioned—in keeping expectations well anchored. I am far less certain, however, that the costs of establishing an objective are small, particularly in a period like this.

President Evans talked about this discussion being orthogonal to the financial situation. I think that is quite euphemistic. Among the questions the world and the markets have about the FOMC, this is not on the top of the list or maybe even on the first page of questions they have about us at this moment. The very nature, role, and responsibilities of the Fed are central and are being asked about in all corners, both in the Congress and in markets, and I think that we should not burden those discussions by adding the discussion of an inflation objective to get some modest benefits thereof in this environment. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. Let me say, first, that I have not been thinking about or discussing these topics since 1995. [Laughter] Nevertheless, before I got here I could have

guessed pretty accurately what the intention of the Committee was and what the targets of the Committee were. From that standpoint, I am not sure that articulating a specific objective is going to do much more to inform the general public as to how this Committee might act. After hearing the discussion, I could, frankly, support in normal times almost any consensus opinion as to what that target should be—how it should be expressed, whether it should be a point or a range, and what measure should be used. However, these are not normal times, and all of the discussion assumes communication and credibility.

On the communication front, I never thought I would see a time when it was almost impossible to articulate the role of capital in the financial system or even the role of the financial system in our overall economy. So I think this makes it a very difficult time to try to inform the public about something like an inflation target. The second piece would be credibility. First of all, we are in a situation with a fairly high level of uncertainty and a low level of confidence in our forecasts, and we are responding to those forecasts with untested tools. So I think it is really difficult to be precise in what we think the outcomes are going to be. Second, we have already strained our credibility a bit in our inability to meet the fed funds target for a period of time, and then we moved the target down to where the actuality was. So I think that those two would make it very difficult right now. Finally, in the political environment, my concern is that, in our efforts to support the markets and individual firms, we are running very close to the political independence line. Any political capital that we use in that sense is political capital that we need, and I do not think this is a time to use up a lot of political energy on the subject of inflation targeting. Thank you.

CHAIRMAN BERNANKE. Thank you all very much. Let me just try to summarize a bit what I heard and make a few additional comments. We have had this discussion a number of times

before, but I actually am learning, and I think the views are evolving, becoming more subtle, and in many ways converging. So I do find it useful, and I appreciate everybody's willingness to participate in this.

I was going to say before the last two or three speakers that I thought we had a pretty broad agreement with the idea in principle. Now, maybe I cannot quite say that at the end of the round, but it is still the case that purely in principle it seems that the great majority of the Committee is comfortable with the idea of inflation targets. Again, abstracting for the moment from political and other considerations, the Committee made both the general arguments that we have heard before about anchoring inflation expectations, reducing uncertainty, improving communication, and the like, while noting that there are some special features now including risk of deflation and concerns about inflation that might make a communication device of this type particularly useful.

I think there is wide agreement in the Committee that an inflation target is not only consistent with the dual mandate but also supportive of the dual mandate in general and that our policies already approximate inflation targeting in that respect. Such a change would affect communication more than policy. For the most part, people agreed this would not affect our ability to address financial stability issues, although Governor Kohn mentioned the asset bubble question. I think that is an interesting question. Just speaking parenthetically, when Mark Gertler and I wrote on this in Jackson Hole as academics about ten years ago, I think our message was misunderstood; our message was not so much that bubbles are unimportant but rather that a strong inflation-oriented policy would, as a side effect, be an effective response to bubbles. But, anyway, there is an interaction, but most people today did not feel that it could not be overcome. So, again, on general principles, I hear pretty widespread support for the idea.

In terms of specifics, there remain some not heartfelt but nevertheless some differences about the details of what an inflation-targeting program would look like. There remains some disagreement about the PCE versus the CPI. One place in which there is agreement is that the headline inflation number is the right one—certainly if the range we are looking at is longer than a year or two. I thought perhaps a slight majority was in favor of a point as opposed to a range, but it was not overwhelming. For the actual number, I actually expected maybe slightly more interest in moving up from our so-called comfort zones, given our recent experience with deflation risk and zero lower bound. There was a bit of that, but people are still mostly in the 1½ to 2 percent range, in general.

On the horizon, I think most people are comfortable with the implications of a quadratic objective function model that says basically that the horizon should be somewhat variable depending on initial conditions and preferences, although a couple of people talked about having a more long-run perspective that would be more aspirational and not as constraining in the short term. There were a couple of interesting comments about having more information about our funds rate expectations, which is something that we have not explicitly talked about much before and that we need to think about over time. Certainly it is a direction that some central banks have decided to go. There was not much support for price-level targeting, as being too complex an approach and too hard to communicate.

Let me say a word about the projections, particularly in light of the consensus that, if we are going to proceed with a target, we should not do it in a precipitate way. I think that there was a pretty reasonable consensus—and I myself would support it—that we should go ahead with the long-term projections that we discussed and were recommended by the Subcommittee on Communications and that we should think about how we communicate those long-term projections

and how that might be either a terminal point for the time being or a further step in the direction of an explicit Committee target. So I think we ought to go ahead with that. I heard a lot of appropriate concern about the political process, and I agree with it. I think it is a very difficult period. In some ways this could be a propitious time because of concerns about deflation, for example. Periods in which there are concerns about deflation are periods when there is not, in a congressperson's point of view, a tradeoff between inflation and growth, but rather inflation is in some sense promoting growth. So in some ways it is propitious and opportunistic, as President Evans described it. But I think fairness to the process and fairness to the fact that we want to have a longer-term decision here suggest that we need to do this very carefully. I will undertake to test the waters very carefully and with great sensitivity to the reactions that I get both from the Administration and from the Congress.

A point that President Plosser made, which I think was a very good one, was that it is not enough to give a target or an objective but that it is important to be very transparent about the linkages between our objectives and the actions that we are talking. I think this is very important, particularly in the current circumstances, when we are working with such unusual tools and the relationships between our tools and our objectives are much less clear even to us than normal. So I am very much in favor going forward, whether or not we decide to have an explicit objective, of doing everything we can collectively and individually to provide information and clarity about the tools we are using and how we expect them to affect the economy and what our anticipations are for the future in terms of using those tools, the criteria we will be using, and so on. I think that transparency in general—if we think about this in a broader framework—is extraordinarily important right now, and an explicit objective could be part of that. But even if it is not part of that, creating more certainty for and understanding by the public about what we are doing is unusually important in this context.

To summarize, I have heard a very interesting discussion. It has been very helpful. I hear for the most part support for the idea of an explicit objective in principle. However, if we were to move in that direction, there was considerable concern that we do it in such a way that it does not use up too much political capital, create a backlash, or even create concerns that we were off message. We would have to explain very carefully why this is not an off-message step. I would propose to continue to discuss and evaluate this option and to do some gentle testing of it with the various political actors and meanwhile to continue with the projections, with transparency efforts, and with our discussion of this within the Committee as we go forward. So let me just stop there. We do not have to come to any conclusions today. I do think it is clear that it is very unlikely that we would take a vote in January, at the next meeting in 10 days, on this matter, but I will continue to report to you on what reactions I get as I test this out a bit.

If it is okay, why don't we just turn for a few minutes to the last item on the agenda, which is the meeting structure. We received a couple of letters on this, which were posted. We are obviously facing important challenges substantively in terms of finding a set of policies that will address the financial instability and its consequences, and in doing so, we have been very creative and have engaged in a number of unorthodox policies. Those policies, in turn, have created governance and collaboration issues. As I discussed at the last meeting, I think fundamentally the only solution for us if we want to, on the one hand, get the right policies and, on the other hand, to work effectively is to do this in a collaborative and mutually respectful way. As a step toward facilitating that collaboration, I asked the staff to propose a structure of the FOMC meeting, which you received. Let me just talk about it for a couple of minutes. I do not know if we want to do a whole go-round, although I am happy to sit here as long as people want to comment, but I would be happy to take comments or questions about it.

Although the Board has responsibility for the section 13(3) credit policies, these policies obviously have implications for overall monetary policy, including the effects on the balance sheet, the effects on our dual mandate, and importantly, the exit strategy, which we discussed today as well. So there clearly is an interest of the FOMC to have oversight for and input into the credit policies that are being used by the Federal Reserve.

We discussed at the last meeting and I would reiterate why I think that setting a target, say, for the size of the balance sheet or the monetary base, as attractive as that might be in the sense of being similar to setting a federal funds rate target, is probably not a good way to go about it because of the heterogeneity of the programs that we are using and the difficulty of summarizing them in a single number. An additional point about using a single number is that, given that with many of the facilities we have the usage is determined by demand rather than by supply, it is often the case that when conditions worsen we get more demand. If we have a fixed target for the base or for the balance sheet, we would perversely be tightening supply in periods just when the facilities are more useful to the markets. Again, I do not think that setting a target for the base or for the balance sheet is a very good summary statistic, not to mention the fact that many of our programs have variable sizes and, therefore, it is not straightforward that we could even meet such an objective.

So how can we set this up in a way to work effectively together? The memorandum that was circulated discussed a possible structure for the meeting. Let me go through it very quickly. First, I proposed to make the meeting a joint FOMC–Board meeting. The purpose of doing that would be to ensure that there is no barrier to discussing any of the programs, including those that are legally the province of the Board, and to emphasize that this is a collaborative process as we work together on these various policies. The second element would be that the usual briefing about financial markets and the economy would be expanded to include a regular discussion of our

various facilities, their usage, their effects on markets, their implications for the exit strategy and for the balance sheet, and any plans or proposals that might exist for future changes or additional programs so that there would be full information for the full Committee on these programs and our evaluation of their effects. I propose that, after that and after a Q&A, we have an informal discussion, not necessarily a go-round, just to get a sense of the Committee about various aspects of these programs and their effects on monetary policy. I think I should reiterate—as everyone knows, but I am going to state it again—that many of the components of these programs are, in fact, FOMC responsibilities, including those related to open market operations, to swaps, and to purchases of securities like GSE debt. So to the extent that we want to make changes or discuss possible future programs in those areas, we can do that certainly as a Committee and make decisions at some point during the meeting.

With respect to the Board's 13(3) facilities, I think it is entirely appropriate for us to have a full discussion of the implications of those present or future facilities for monetary policy and for the exit strategy. I think that the Committee ought to express its views on the implications of those programs and that the Board should and will fully take into account those views in whatever actions it decides to take. Following this discussion there would be the normal economic outlook go-round and the policy go-round, and there would be further opportunities for comments from the FOMC participants. Then, of course, our discussions and actions would be reflected in the statement and in the minutes. It was suggested—I think President Lacker suggested it—that another place to have this discussion would be in the policy go-round, and I am perfectly fine with that. I think the advantage of having some discussion at the beginning of the meeting is to give people a chance to hear what others have to say and to get some sense of the Committee. Then in the policy go-round,

if people have views that they would like to express at that point, that will be informed by an earlier discussion. So I see no conflict with that.

That's my general recommendation. I will say just one more word about an alternative. An alternative would be to have some kind of formal vote, resolution, sense of the Committee about balance sheet programs. I am open to discussion of any such proposal, but I would just point out that, again, effectively the only programs affecting the balance sheet that are not under the direct control of the FOMC are the 13(3) credit facilities. At this point going forward, it looks as though we have the TALF and maybe variants of the TALF for the main direction that it is going to go. So I think it would be really quite effective for the Board to bring such proposals before the Committee and get their input and views, and it would probably be a more straightforward way to manage it. But I am not wedded to anything. I really want to make sure that the Committee is comfortable that it is fully exercising its authority and responsibility and that its views are being taken into account as the Board takes any actions related to credit facilities and the like. Those are just some thoughts, and I guess I would emphasize finally that whatever we do for January is an experiment. We can see how it works, and we can evolve over time as we gain experience and information. But let me stop there and just invite any comments or questions on this general topic. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Because I have made the case for balance sheet observation, I just thought I would share a couple of thoughts. First of all, I appreciate your efforts and your thoughts on this matter. I think the memo was informative and helpful, and your comments have been very welcome from my perspective. I would make just one minor suggestion or at least comment. My view about the balance sheet in terms of the FOMC's role, in part, was not to set or particularly to target the balance sheet or a specific size of the base. Both in the last meeting and currently, my point has been to think more broadly about putting caps either on sizes of

certain programs or on the balance sheet as a whole, recognizing full well, as you pointed out, that some of these programs are demand driven and they go up and they go down perhaps even from week to week in some cases. I fully understand that, and my thinking along these lines is that we would try to set caps either for the overall balance sheet or maybe even for individual programs, that we would review them periodically and, if demand or circumstances arose where we felt it was appropriate to expand the size of the programs or create new ones and therefore adopt changes in the balance sheet accordingly, we could adapt the interaction between the Committee and the Board in that way.

So I don't want to be misunderstood as that I was trying to have a base growth target or even a balance sheet growth target in the way I was thinking about it. I was trying to recognize—as you pointed out, Mr. Chairman—that there is an interaction here between the nature of monetary policy and the nature of the credit programs that we are managing. We need to acknowledge explicitly that interaction and make sure, as these programs and these efforts evolve, that we take into account that interaction in an appropriate way. That is the critical piece of what I think we need to think about. Moving forward, I agree with you that we ought to try some new strategies and discussion in our meetings. I hope in the process—as you said, it is an experiment—we will work through a collaborative effort to achieve our objectives. But this does relate back—as you pointed out in your comments—to our earlier discussion about inflation targeting and, in any communicative effort, we need to be able to link our actions that we take as a Committee on monetary policy and our charges, relate that to what we are doing and to our objectives in a fairly systematic way. As you pointed out, and I agree with you, right now that is very difficult to do. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, I am comfortable with what you have proposed for the organization and content of the meeting. As you said, I think we ought to give it a shot in January, and we may learn from that experience that there are some ways to improve it, but I am certainly comfortable in starting with that. The only other thing I would add is that I have tried to give some thought as to whether we could set some metric or numerical objective for the balance sheet, the base, reserves, or something that would relate in a meaningful way to our objectives and would help address this issue. So far all I can say is that I have been stymied and have not been able to make any progress on how we would do that. So I think by the nature of the fact that our tools and programs are not, at least on the basis of history, related to our objectives in any systematic way, we are going to have to do this as best we can judgmentally. Thank you.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I really found this proposal of yours to be very helpful because my views have been evolving on this. It is much more complicated, difficult, and interesting than even I guessed. So I think our thinking will evolve on this, and it is an experiment as you mentioned. I had previously thought that somehow introducing, as President Plosser mentioned, some type of cap on the size of the balance sheet or some range for that would be useful. But you have certainly convinced me that the size of these programs is going to vary depending on a number of endogenous developments as well as on what we do. So that is probably not so fruitful.

But in terms of the responsibility of this Committee, when we start talking about the exit strategy for winding down the programs and getting our balance sheet back toward where it was at the outset, I recognize that this is quite some time forward and we will be lucky when we get to that point. We need to be thinking about how the balance sheet looks as we exit this, and that is going to be a real challenge. That is why I applaud all of the suggestions about how we look at these

programs with respect to that exit strategy. What we need to do is think about what the due diligence ought to be as we consider the risk that we are facing for policy. Depending on how this plays out, there could be capital losses. I do not know how large, but then as we try to wind this down, we might find that there is a lot more liquidity out there. Our liabilities are larger. We can't extinguish that on our own, and that would have price-level implications under certain scenarios that would be very uncomfortable for us. Now, of course, the Treasury could help us out with issuing certain notes, but then that gets us into how we are tied to the Treasury, and so that is just more complicated. Still I think that your proposal—for Bill Dudley and the New York Desk to talk about financial developments and the programs, being as explicit as possible and in a consistent fashion describing these programs and identifying the key parameters that will help determine whether the exit strategy is going more favorably or if we are at greater risk—I think that would be very helpful.

When we get to the policy discussion on these programs, we could try to come up with some risk scenarios as benchmarks for things that we fear greatly or things that would go well. These could be low probability. Obviously, we are thinking that they are low probability. The worst case would probably be if inflationary expectations rose and the economy were still in the doldrums or worse. That is not my outlook, but if there was a loss of confidence in the United States relative to the rest of the world—again, I see that this is low probability—how would that influence what our balance sheet looks like coming out? Even if it is a low probability, if it has a really high cost to our institution, at least being explicit about the risk that we are accepting as a Committee for the Federal Reserve would serve us very well. I am pretty sure that we are headed in directions like this, but I am just interpreting this now in terms of the due diligence that we might expect if somebody were supervising an institution like this and what they would be asking us to do. I think that this will probably evolve, and I found this to be very helpful. Thanks.

CHAIRMAN BERNANKE. Thanks. I hope the kind of analysis that we can do for the Committee will be complementary with improving our explanation for the public as we develop metrics and criteria. Governor Duke.

MS. DUKE. Mr. Chairman, as we have a number of different programs, all of which have different life cycles, I wonder if we might look at managing our balance sheet in the same way our financial institutions do. That would be that we would communicate in terms of expectations and in terms of a strategy so that we would have a starting point, which would be wherever our balance sheet was at our meeting. Then we might also adopt or at least discuss an expectation as to where that balance sheet is headed in the different subcategories. For instance, in a bank you tend to talk of increasing or decreasing the loan portfolio at various levels. In some of the programs, it might be an expectation of demand, and in others, it might be a specific decision as to supply. But rather than discussing each proposal separately, we might actually take a look at the full balance sheet, if you will, and say in an intermeeting period that we would expect our balance sheet to move in this direction in terms of components.

CHAIRMAN BERNANKE. I think that is a good suggestion. But you said intermeeting period, and I think we would probably want to look at longer horizons as well.

MS. DUKE. And longer horizons as well. But it would give some indication as to what we thought was going on with each type of program and the conditions that surrounded it.

CHAIRMAN BERNANKE. That's a good suggestion. Anybody else? President Fisher.

MR. FISHER. Well, very quickly, Mr. Chairman, I think Governor Duke's suggestion is very good, both short and long term. I just want to thank you for the fairness of what you are suggesting here. I think it goes a long way to being inclusive and certainly to avoid disenfranchising the Committee, which is no one's intention. Like Gary, I'm stymied at trying to

figure out a metric. But I think the important point is that we will at least be having a full-throated discussion of the interactions and the monetary consequences of our initiatives, and I just want to thank you for the proposal that you have made. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. Just following up a bit on some of these comments, I was wondering if you thought that some kind of metric like the permanent component or the consistent component of the expansion of the balance sheet is really what we are thinking about in a lot of these comments. Maybe that is the kind of measure that we are trying to put together. A lot of your comments and everybody's comments are that there is much reversibility in many of these programs. They are temporary programs intended to address the financial crisis, and they will go away once conditions return closer to normal. But there might be components that are substantial and are harder to reverse, and somehow we would like to get metrics about that so that we have some sense of what we are doing in terms of price-level implications or inflation implications over the medium term. I do not know if you think something like that is sort of where we are headed, or is that just too difficult to get a handle on? Thank you.

CHAIRMAN BERNANKE. Well, I think a more accessible way to say what you said was going back to what President Evans said and what Governor Duke said, which is to have forecasts or projections of the balance sheet, perhaps under different scenarios. That is a way essentially of trying to figure out what the permanent component is or what the longer-maturity component is under different scenarios. Any other questions or comments? Again, it has been a long and very fruitful discussion, and I look forward to seeing you in Washington in about 10 days. Thank you.

END OF MEETING