**Meeting of the Federal Open Market Committee on December 15–16, 2008**

A joint meeting of the Federal Open Market Committee and Board of Governors of the Federal Reserve System was held in the offices of the Board of Governors in Washington, D.C., on Monday, December 15, 2008, at 2:00 p.m., and continued on Tuesday, December 16, 2008, at 9:00 a.m. Those present were the following:

Mr. Bernanke, Chairman
Ms. Duke
Mr. Fisher
Mr. Kohn
Mr. Kroszner
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. Ashton,[1] Assistant General Counsel
Mr. Sheets, Economist
Mr. Stockton, Economist

Messrs. Connors, English, and Kamin, Ms. Mester, Messrs. Rolnick, Rosenblum, Slifman, and Wilcox, Associate Economists

Mr. Dudley, Manager, System Open Market Account

Ms. Johnson,[2] Secretary, Office of the Secretary, Board of Governors

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

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

Messrs. Clouse and Parkinson,[1] Deputy Directors, Divisions of Monetary Affairs and Research and Statistics, respectively, Board of Governors

Messrs. Leahy,[2] Nelson,[3] Reifschneider, and Wascher, Associate Directors, Divisions of International Finance, Monetary Affairs, Research and Statistics, and Research and Statistics, respectively, Board of Governors

Mr. Gagnon,[2] Visiting Associate Director, Division of Monetary Affairs, Board of Governors

Ms. Shanks,[2] Associate Secretary, Office of the Secretary, Board of Governors

Messrs. Perli and Reeve, Deputy Associate Directors, Divisions of Monetary Affair and International Finance, respectively, Board of Governors

Mr. Covitz, Assistant Director, Division of Research and Statistics, Board of Governors

Ms. Goldberg,[2] Visiting Reserve Bank Officer, Division of International Finance, Board of Governors

Mr. Zakrajšek,[2] Assistant Director, Division of Monetary Affairs, Board of Governors

Messrs. Meyer[2] and Oliner, Senior Advisers, Divisions of Monetary Affairs and Research and Statistics, respectively, Board of Governors

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

Messrs. Ahmed and Luecke, Section Chiefs, Divisions of International Finance and Monetary Affairs, respectively, Board of Governors

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

Messrs. Gapen and McCabe,[2] Economists, Divisions of Monetary Affairs and Research and Statistics, respectively, Board of Governors

Ms. Beattie,[2] Assistant to the Secretary, Office of the Secretary, Board of Governors

[1] Attended Tuesday's session only.
[2] Attended the portion of the meeting relating to the zero lower bound on nominal interest rates.
[3] Attended the meeting through the discussion of the zero lower bound on nominal interest rates.

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

Mr. Werkema, First Vice President, Federal Reserve Bank of Chicago

Mr. Fuhrer, Executive Vice President, Federal Reserve Bank of Boston

Messrs. Altig, Hilton, Potter, Rasche, Rudebusch, Schweitzer, Sellon, Sullivan, and Weinberg, Senior Vice Presidents, Federal Reserve Banks of Atlanta, New York, New York, St. Louis, San Francisco, Cleveland, Kansas City, Chicago, and Richmond, respectively

Mr. Burke,[2] Assistant Vice President, Federal Reserve Bank of New York

Mr. Eggertsson,[2] Senior Economist, Federal Reserve Bank of New York

[2] Attended the portion of the meeting relating to the zero lower bound on nominal interest rates.

## Transcript of the Federal Open Market Committee Meeting on December 15-16, 2008

### December 15, 2008—Afternoon Session

CHAIRMAN BERNANKE. Good afternoon, everybody. We welcome Chris Cumming, who is sitting in for New York. As you know, under the extraordinary circumstances we added an extra day to the meeting. The purpose of the meeting taking place today is to discuss the zero lower bound and related policy and governance issues, and I hope that the discussion today will set up our policy decision for tomorrow.

Just for preview purposes, the program today will start with Bill Dudley and Q&A. We'll then have a staff presentation on the zero lower bound and alternative policies. We'll have a go-round on those issues, including nontraditional policies and communications associated with it and so on. Let me just mention that on the agenda for tomorrow, after the policy decision, we have the subcommittee's report on long-run projections and the quarterly projections. We put that there to save time and to make sure that we met our deadlines; but obviously there's some linkage between that and the discussion today, and if anyone wants to bring that up today, please feel free to do so. Finally, if we're very efficient—as I hope we will be—I'd like to get to the staff economic briefing at the end of today, if possible—if not, not—and then there's dinner afterwards. So without further ado, let me turn to Bill Dudley. Bill.

MR. DUDLEY.[1] Thank you, Mr. Chairman. Unfortunately this package is a little thicker than usual, but that's the way it goes, I guess. The stimulus provided by monetary policy to the real economy depends not only on the level of the federal funds rate but also on the health of the financial system. The ability of market participants to intermediate and act effectively as the transmission channel between the change in the federal funds rate target and financial asset prices is critical. When bank and dealer balance sheets are constrained as they are now, this transmission mechanism is impaired, and traditional monetary policy instruments become limited in their ability to support economic activity.

[1] The materials used by Mr. Dudley are attached to this transcript (appendix 1).

The recent sharp deterioration in the macroeconomic outlook and the forced deleveraging of the nonbank portion of the financial sector have led to sharp declines in asset values during the past few months. The consequence will be further big mark-to-market losses for investment and commercial bank trading books and a significant increase in loan-loss provisions on commercial bank loan books. These losses are likely to intensify the vise on financial firm balance sheets, and that is likely to further impede the Federal Reserve's efforts to ease financial conditions. As a consequence, a broadening of our suite of liquidity facilities that bypass banks and dealers may prove to be necessary.

Equities, corporate debt, and securitized assets—especially commercial-mortgage-backed securities (CMBS)—have all been hard hit, and the commodity sector, the preferred asset class of choice earlier in the year, has been clobbered. As shown in exhibit 1 of the handout, U.S. equity prices fell sharply beginning in September. Although the aggregate indexes have bounced off their low points, the S&P 500 index had still fallen 30 percent between the end of August and the end of November. This is the relevant quarter for Goldman Sachs and Morgan Stanley, which report this week. In the current calendar quarter, despite the rebound, the S&P 500 index has declined about 25 percent. The carnage has also been evident abroad, especially in emerging markets. The corporate debt market has scarcely been more hospitable. The high-yield corporate bond yield for some broad indexes has climbed above 20 percent (exhibit 2). Assuming a 20 percent recovery rate on defaults, yield levels in this sector appear to fully discount a default experience consistent with the peak reached in the Great Depression. The securitization markets have performed little better. Not only are most securitized markets shut to new issuance, but also the yields on even the highest-rated outstanding tranches have climbed sharply. Exhibit 3 illustrates the current spreads for different types of AAA-rated consumer securitizations—credit cards, auto loans, and student loans. Exhibit 4 illustrates the sharp deterioration in valuations in the CMBS market. The left panel shows spreads on a basket of post-2003 vintages. The right panel shows the price performance of particular AAA-rated CMBS tranches. Most have fallen about 20 points in the past quarter.

Commodity prices also continue to plummet. As shown in exhibit 5, the declines have been particularly pronounced in the energy and industrial metals sectors. In contrast, gold prices have held up quite well (exhibit 6), especially since the October FOMC meeting. Gold prices presumably have been supported by the drop in global short-term interest rates, which reduces the carrying cost of owning gold. It is also possible that gold is viewed as a hedge against the risk that central bank policy actions could ultimately prove inflationary. Presumably, the fear may be that the exit from these policies could be delayed or prove more difficult to engineer than generally anticipated.

This poor performance of financial and real assets has a number of important implications. In particular, the earnings of most major financial intermediaries will be very poor this quarter. For example, the two investment banks that report this week are almost certainly likely to record large mark-to-market losses. The *Wall Street Journal* reported earlier that Goldman Sachs will report a loss of around $2 billion when it reports tomorrow morning. This may actually understate the carnage because compensation booked for previous quarters can be reversed and the reversal of income taxes paid will reduce the size of the loss. Commercial banks will also not be spared when they report next month. Not only will they have significant losses on their trading books, but also loan-loss provisions are likely to climb sharply. JPMorgan indicated last week that the current quarter has been terrible, and they have been one of the best-performing commercial banks.

The sharp decline in asset prices is also likely to reinforce the deleveraging process that is occurring throughout the financial sector. Although hedge fund performance in November was better than in the previous months, preliminary figures show that the aggregate index continues to slide (exhibit 7). We're down about 17 or 18 percent so far this year, and that's the worst performance in hedge fund history in the aggregate by a significant margin. Although the redemption deadlines for year-end have generally passed, this pressure will persist into the first quarter and beyond for two reasons. First, many fund-of-funds managers will get another round of redemption requests before year-end, which will cause them to ask for monies from the hedge funds that are part of their fund-of-funds families in the first quarter. Second, some hedge funds restrict or "gate" the rate of withdrawals. For example, Citadel suspended all redemptions for their two biggest funds through March 31. This means that there will be a backlog in unfulfilled requests that will take time to satisfy. The Bernard Madoff scandal may also lead to additional redemption requests.

The losses suffered by dealers and banks mean that their balance sheet constraints will continue to stymie the Federal Reserve's efforts to supply liquidity to prospective borrowers. As shown in exhibit 8, recent TAF auctions have been undersubscribed, and as shown in exhibit 9, the amount of dollar liquidity supplied via our swap lines has stabilized even though term LIBOR remains elevated well above the minimum bid rate that we charge on those auctions and the fact that swaps are open-ended in size. The problem is no longer one of supplying sufficient liquidity to the banks and dealers. The problem is getting these intermediaries to pass the liquidity onward to their clients.

Balance sheet constraints reveal themselves in many guises. Although LIBOR-OIS spreads have narrowed somewhat, they remain very elevated relative to historical levels (exhibits 10 and 11); jumbo mortgage rate spreads remain wide relative to conforming mortgage rates (exhibit 12); and cash instruments that take balance sheet room trade at significantly higher spreads than the corresponding derivatives that don't. Exhibit 13 illustrates the spread between high-yield cash bonds and the corresponding CDX high-yield derivatives index. This widening in that basis is one reason that some banks have taken large losses in the fourth quarter. Evidence that balance sheet constraints are impeding the availability and cost of credit continues to proliferate. This is obviously important because, if credit is not available on reasonable terms, this is likely to exacerbate the downward pressure on the economy.

A darker economic outlook, in turn, threatens to lead to more losses and balance sheet pressures, reinforcing the downward dynamic.

In terms of credit availability, the commercial mortgage area appears to be particularly vulnerable. According to industry sources, about $400 billion of mortgage debt—most put on five to seven years ago—needs to be refinanced when it comes due in 2009. In recent years, commercial banks and the CMBS market provided the major source of funds for the commercial mortgage market. The owners of this commercial real estate are worried that, without new Federal Reserve and Treasury initiatives, funding will not be available to refinance this mortgage debt in 2009 on virtually any terms. Investment-grade and high-yield corporate debt will also have to be refinanced. Exhibit 14 illustrates that more than $600 billion of term investment-grade corporate debt will need to be refinanced in 2009. So far, this market still looks open for business, but it may become less so if the macroeconomic environment continues to deteriorate.

Enough gloomy news. In the credit markets, are there any areas that have shown improvement? The answer, of course, is "yes." In those areas in which the federal government, including the Federal Reserve, has applied the most force, the situation has generally stabilized or improved. Let me briefly give a few examples. First, the FDIC funding guarantee, the Citigroup intervention, and the $250 billion of TARP money allocated for bank capital seem to have stabilized the banking sector. As shown in exhibits 15 and 16, CDS spreads have been pretty stable recently despite the deterioration in the macroeconomic outlook. Second, the commercial paper funding facility (CPFF) has led to significant improvement in the commercial paper market. As shown in exhibit 17, the yields on highly rated commercial paper have declined. As this has occurred, the CPFF has become less attractive, and the number of issuers and the amount of commercial paper purchased each day by the CPFF have moderated sharply (exhibit 18). Just as important, after an initial surge in which the CPFF represented virtually all of the long-dated maturity issuance, the CPFF share of long-dated issuance has fallen significantly (exhibit 19). So far, the CPFF has worked pretty much as designed. Third, our announcement and purchases of agency debt have brought in agency debt spreads relative to Treasuries. For example, in the five-year sector, debt spreads for Fannie Mae and Freddie Mac have narrowed more than 50 basis points since the last FOMC meeting. Fourth, our announcement that the Federal Reserve would purchase up to $500 billion in GSE mortgage-backed securities has caused the spread between conforming mortgages and Treasuries to narrow sharply. Coupled with the fall in Treasury yields—encouraged somewhat by the Chairman's suggestion in a speech that the Federal Reserve might buy long-dated Treasuries for the SOMA—this has caused conforming mortgage rates to drop sharply (exhibits 20, 21, and 22). As a result, mortgage refinancing activity has climbed sharply. Exhibit 23 illustrates the spike upward in the Mortgage Bankers Association mortgage applications to refinance index that has occurred in the past two weeks.

Exhibits 24 and 25 contrast the performance in markets with federal government intervention to those markets without. Spreads have generally narrowed where there has been intervention and widened elsewhere. The contrast in the behavior of spreads suggests that one might wish to expand our existing facilities further. The TALF is an obvious potential candidate given that it could conceivably be extended in multiple dimensions—including the scope of asset classes, vintage, and credit quality. In my opinion, the liquidity facilities should be viewed as part of our suite of monetary policy tools. The impulse of monetary policy to the real economy depends not just on the level of the federal funds rate but, more important, also on the impact on financial conditions. In normal times, movements in the federal funds rate result in moves in financial conditions in the same direction. Markets do the work, and financial conditions ease as the federal funds rate is cut. But in extraordinary times such as the present, in which banks and dealers are unwilling to on-lend liquidity because of balance sheet constraints, federal funds rate reductions alone may be ineffective in easing financial conditions. In such an environment, special liquidity facilities that bypass the banks and dealers may prove necessary to ease financial conditions. However, expansion of our liquidity tools does blow up our balance sheet. Exhibit 26 shows the growth of the balance sheet and the changes in its composition over time. Since late September, the balance sheet has grown sharply mainly because of the expansion of our foreign-exchange swap program (shown in light blue), the CPFF (shown in brown), and the TAF program (shown in purple). As shown in exhibit 27, which is a snapshot of our balance sheet late last week, this has caused excess reserves to rise sharply. The growth in excess reserves has been exacerbated by the rolling off of the Treasury SFP (supplementary finance program) bills. We peaked at about $500 billion earlier, and now we have $364 billion of SFP bills on our balance sheet. The Treasury was unwilling to continue this program at its earlier level because of worries about reaching the debt limit ceiling in the first quarter and because they would have had to notify the Congress 60 days before that.

Turning now to the Desk's efforts to implement monetary policy and the FOMC's directive, the effective federal funds rate has continued to trade soft relative to the target rate (exhibit 28). The interest rate paid on excess reserves (IOER rate) has not been a perfect substitute for the Treasury SFP program. Because the IOER rate for the two-week reserve maintenance period is set at the lowest level that occurred anytime during that period, the sharp drop last Thursday evident in the exhibit occurred because banks anticipate a substantial cut in the federal funds rate target and the IOER rate at this FOMC meeting. The drop in the effective rate has occurred even though we have increased the rate paid on excess reserves to equal the federal funds rate target. Although some of this softness in the effective rate relative to the target reflects the sales of federal funds by GSEs that are not eligible to be paid interest on excess reserves, this is by no means the whole story. The unwillingness of major banks to bid more aggressively for these funds is an important factor. This unwillingness to fully arbitrage the gap between the IOER rate and the effective federal funds rate is another consequence of the lack of balance sheet capacity in the banking sector. Although we are exploring ways to remove most of the GSE effect from the picture, even if we were to be successful in doing this, we expect that the balance sheet constraints would still be powerful enough to cause the effective federal funds rate to trade soft relative to the target. Also, if the GSE federal funds volumes were removed, it is not clear what the effective target would represent because trading volumes could then turn out to be very, very low.

The drop in the effective federal funds rate has been accompanied by a corresponding drop in other short-term interest rates. In particular, general collateral repo rates have collapsed almost all the way to zero (exhibit 29). This is likely to lead to a rise in Treasury fails because, when general collateral repo rates are very low, the cost of shorting Treasury securities becomes negligible. As fails climb, in turn, this erodes market function in the Treasury market and reduces the usefulness of the Treasury market as a hedging vehicle for other fixed-income assets. The effect of fails on Treasury market function can be seen in exhibit 30, which shows how errors in our Treasury yield curve model have increased as short-term interest rates have fallen close to zero.

In terms of monetary policy expectations, the federal funds rate futures curves (exhibit 31) and the Eurodollar futures curves (exhibit 32) continue to shift lower. However, with the effective federal funds rate persistently trading below the target rate, it is unclear how much of this shift represents a change in expectations about what the Committee will do with respect to the target. The primary dealer credit survey sheds considerably more light here. As shown in exhibits 33 and 34, rate expectations have shifted lower since the last FOMC meeting. All 16 respondents to our most recent survey expect the FOMC to reduce the target, with most (13 out of 16) calling for a 50 basis point reduction in the target rate. No dealer expects a 25 basis point cut at this meeting. Two are at a 75 basis point cut, and one anticipates a 100 basis point reduction in the target rate. A slim majority—9 out of 16—expect a 50 basis point target to be the trough for the target rate. Most expect that the FOMC will not cut the target at future meetings, and no rate hikes are expected by anyone until the second half of 2009 at the earliest. Comparing exhibits 33 and 34, the most recent survey shows considerably less dispersion in the four-quarters-ahead federal funds rate forecasts.

Finally, for completeness, I include our standard chart on inflation expectations as measured by the Board's and Barclays' measures of the five-year, five-year-forward breakeven inflation rate (exhibit 35). I don't think these breakeven rates provide much information right now because the TIPS market has been heavily influenced by the sharp fall in CPI inflation that will accrue to TIPS over the next few months and by the growing illiquidity of TIPS versus nominal Treasuries. Interestingly, the most recent primary dealer survey shows no change in five-year, five-year-forward expectations for CPI inflation, with the average of the group remaining at 2.4 percent. There is, however, somewhat greater dispersion on both sides indicating uncertainty about how successful the Federal Reserve will be in keeping core PCE inflation in the "comfort zone" of 1½ to 2 percent on a longer-term basis (exhibit 36).

There were no foreign operations during this period. I request a vote as always to ratify the operations conducted by the System Open Market Account since the October FOMC meeting. Of course, I am very happy to take questions.

CHAIRMAN BERNANKE. Thank you. There was a sharp decline in the spike in the fails recently?

MR. DUDLEY. Yes. There are two potential explanations, and it's really hard to sort out what's driving it. One is just that trading volumes have come down, and as trading volumes have come down, fails have come down. So that's part of it. It's just tied to trading volume. The second explanation is that the Treasury Market Practices Group published a best practices report basically arguing that a penalty rate should be put on fails, and it is going to design a road map to show how that might be implemented in practice. It may be that, given that publication, people who before might have been more cavalier about shorting Treasury securities at very low interest rates are now somewhat less inclined to do so just because of the moral suasion of that report that it is not a good thing to do. So it is some combination of those two, I think.

CHAIRMAN BERNANKE. Thank you. Questions for Bill? President Hoenig.

MR. HOENIG. Bill, in your discussion on exhibit 13 and around the idea that a number of resets are coming for mortgages—the earlier seven-year ARMs and so forth—and as you also look forward to where mortgage rates are, why are you anticipating trouble with the ability to refinance, given the outlook for mortgages rates?

MR. DUDLEY. I think you have to distinguish between conforming mortgage markets and everything else. The conforming mortgage market is doing fine. Some spreads are a little wider than they have been historically, but our actions seem to have been pretty successful in bringing those spreads in a bit. So the conforming mortgage market rate is fine. The problem is in commercial-mortgage-backed securities and nonconforming mortgages. The appetite to provide financing there is very, very much impaired, especially in the commercial mortgage market.

MR. HOENIG. Right. Okay. That clarifies. Thank you.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Bill, has the FDIC's temporary liquidity guarantee program interfered with or added to the confusion in the purchase and sales of fed funds, or has our excluding sales under one month changed the picture?

MR. DUDLEY. I don't think it has created much confusion. The biggest confusion is who is guaranteed and who is not and which instruments are guaranteed and which instruments are not. I think people will have trouble sorting that out. Most of the issuance has been long term—three years. People say, "Well, if I'm paying 75 basis points, let me get the most value for that." So there hasn't really been much channel conflict with the very short end, and I think that the fact that one month and in is not covered also has reduced that potential channel conflict.

MR. FISHER. Is that pretty well understood in the marketplace?

MR. DUDLEY. I think so.

MR. FISHER. Then speaking of guarantees, I have just one more question, if I may, Mr. Chairman. In chart 14, are these net of credits that might have some kind of government guarantee?

MR. DUDLEY. This is total. In fact, when you look at the issuance of investment-grade corporate debt recently, there's quite a bit of it, but most of it is the guaranteed stuff.

MR. FISHER. Yes.

MR. DUDLEY. So excluding the guaranteed stuff, the issuance volumes do not look as robust as the aggregate number suggests because so much of that is the guaranteed stuff.

MR. FISHER. So for 2009?

MR. DUDLEY. I don't have the number off the top of my head.

MR. FISHER. It's not this total?

MR. DUDLEY. No.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Any other questions? President Bullard.

MR. BULLARD. At the beginning of your comments, you said that you expected further big mark-to-market losses. Do you mean over and above what markets anticipate now?

MR. DUDLEY. No. I mean that in the fourth quarter they will reflect the decline that occurred from August 30 to November 30 for the investment banks. September 30 to December 30 just hasn't been yet recorded on their balance sheet. They haven't announced it yet.

MR. BULLARD. You cited that Goldman number of $2 billion, but that's been widely reported.

MR. DUDLEY. That has been widely reported. Morgan Stanley is also going to report this week, and it is highly likely they will have similar losses.

MR. BULLARD. Then I just want to understand—on exhibit 2 you said something about a fully discounted default rate last seen in the Great Depression. What did you mean by that?

MR. DUDLEY. Well, if you basically take that 21 percent and compare it with the default rates in the Great Depression and write down some numbers for recoveries, if you had a default rate equal to the Great Depression default rate and you had a 20 percent recovery, you'd actually do pretty well owning high-yield debt at these levels right now. So the level of yields fully discounts horrific default rates.

CHAIRMAN BERNANKE. In fairness, these are junk bonds. These are low-rated companies.

MR. DUDLEY. Well, yes. It is possible that we could have default rates greater than those of the Great Depression. I'm just saying that these levels discount that kind of outcome. Obviously, the high-yield debt market today is different from general default rates. Yeah, I think that's a fair point.

MR. BULLARD. Do we know? Was there something like a junk market in the Great Depression that we can compare this with?

MR. DUDLEY. Well, there were certain leveraged utility companies that you could argue were pretty junky.

MR. FISHER. Corporate grade became junk in the Great Depression.

CHAIRMAN BERNANKE. Michael Milken hadn't been born yet. [Laughter] President Lacker.

MR. LACKER. That's a calculation that embeds risk neutrality into the extrapolation?

MR. DUDLEY. Well, you could solve for the risk premium that was left over, and we did a back-of-the-envelope calculation in New York on that. It was an excess return of about 600 basis points.

MR. LACKER. Doesn't that depend on the assumption about the correlation between—

MR. DUDLEY. Look. This is back of the envelope. Obviously, you'd have to dig down pretty deeply to try to separate what's the default rate and what's the risk premium. But the point here is that the market is discounting very adverse outcomes.

MR. BULLARD. I just want to follow up on that. Would you say that that represents a tremendous amount of pessimism out there, or are you saying that you think we're going to get default rates like the Great Depression?

MR. DUDLEY. No, I think it's some combination. I don't think you can really separate how much of it is default rate versus how much of it is risk premium. The point is that there's probably a considerable amount of both. Clearly the risk premiums are high because we see risk premiums on safe assets being very, very high. The classic example is the student loan, which is 97 percent guaranteed by the federal government, trading at LIBOR plus 350 or LIBOR plus 400. That's probably a pretty good measure of risk premium—that's your underlying risk premium on all assets, maybe a few hundred basis points.

CHAIRMAN BERNANKE. President Lacker has a two-hander.

MR. LACKER. First, about the risk premium, it's either a lot of pessimism or a lot of correlation between defaults and bad states of the world and essentially low growth. The second thing, I took a look at the student-loan-asset-backed securities that you talked about—FFELP. I think you have a chart here. It turns out that the trusts are guaranteed a rate of return equal to the commercial paper rate, and any excess over that they have to return to the Department of Education. They get a payment if the return is below that. Your coupon is 200 points above LIBOR, and LIBOR is trading a bit above commercial paper rates, right? So there's a negative spread built into the trust documents. They're paying 300 basis points more than they're earning on the trust. So a little extra premium seems pretty reasonable. Is my understanding of that security correct, Bill?

MR. DUDLEY. I think what you're describing is the perspective from the issuer of the obligation. The issuer of the obligation has a problem because on one side they get commercial paper and on the other side they get LIBOR, and so they have a mismatch. They have essentially a basis risk. But about where securities are trading in the market or what end-investors can invest in the securities—I think you're referring more to the issuers of the securities, and the chart I showed is what investors in the AAA tranches get. So I think it's a slightly different thing.

MR. LACKER. Well, wouldn't investors want to discount or take into account the fact that the trust, which is their only source of payment, is earning about 300 basis points less than the coupon? Wouldn't that show up in a higher premium on what the investor is willing to pay?

MR. DUDLEY. I don't see it that way.

MR. WILCOX. President Lacker, it's a complicated security, but it's wrapped by a guarantee that ultimately the Department of Education will make good on to the tune of 97 cents on the dollar. There's one little detail that is causing another piece of friction in the market, and that is that, if the servicer doesn't perform on the loan, then the Department of Education has the right to not make good on the guarantee. But other than that, it's about 97 percent guaranteed.

MR. DUDLEY. We think they're pretty safe—not perfectly safe, but pretty safe.

MR. LACKER. Okay.

MR. WILCOX. Apparently the ability of the Department of Education not to make good on the guarantee is very rarely exercised.

MR. LACKER. But the Department of Education doesn't guarantee LIBOR plus a 200 basis point coupon. It guarantees the commercial paper rate.

MR. WILCOX. I believe Bill's point is that it guarantees a return to the investor.

MR. LACKER. That still doesn't seem that irrationally priced. Thank you.

CHAIRMAN BERNANKE. Okay. Other questions for Bill? If not, we need a motion to ratify domestic open market operations.

MR. KOHN. I so move.

CHAIRMAN BERNANKE. Any objections? All right. Thank you. Let's turn now to Brian, and we'll have a staff presentation on the zero lower bound. I'm being reminded that this is a joint Board–FOMC meeting. I'm reconvening a Board meeting that began this morning. Thank you.

MR. MADIGAN. Thank you, Mr. Chairman. As the Committee requested at your last meeting, the staff has provided background for your discussion today of issues related to the zero lower bound on nominal interest rates. Ten days ago, we sent you 21 notes covering lessons from the U.S. and Japanese experiences in disinflationary or deflationary environments; the possible costs to financial markets and institutions of very low interest rates; the potential benefits of further rate reductions; and the advantages and disadvantages of nonstandard approaches to providing macroeconomic stimulus that could be employed when the federal funds rate cannot be reduced further. Numerous staff members contributed to these notes—too many to recognize individually right now. But I would nevertheless like to thank them collectively for their intensive efforts on this project when many were already quite busy with other important assignments. Steve Meyer will now summarize the key conclusions from the staff work, and then I will review the suggested questions for discussion that we sent to you last week. Steve.

MR. MEYER. Thank you, Brian. By way of background, the Greenbook and many private forecasters project a sizable drop in real GDP from mid-2008 to mid-2009, followed by sluggish growth into 2010, even with short-term interest rates barely above zero and with substantial fiscal stimulus. The Board staff and the median forecaster in the December Blue Chip survey predict that unemployment will peak around 8.25 percent in 2010. The Greenbook forecast shows core PCE inflation dropping below 1 percent in 2010; many private forecasters envision similar disinflation. Moreover, responses to a special question in the latest Blue Chip survey indicate that private forecasters see a sizable risk of deflation, and stochastic simulations of FRB/US that take the Greenbook forecast as the baseline suggest a roughly 1-in-4 chance that the core PCE price index will decline over one or more of the next five years. In short, forecasts generally suggest that additional stimulus would be desirable.

With the target federal funds rate at 1 percent and the effective rate significantly lower, the Committee has little scope for using conventional monetary policy to stimulate the economy. As a practical matter, the System's large liquidity-providing operations and the Treasury's decision to scale back the supplementary financing program make it likely that the effective federal funds rate will remain quite low into the new year. Even so, the Committee could choose to apply some additional stimulus by reducing its target federal funds rate and pushing the effective funds rate closer to zero.

The research literature strongly suggests that a central bank should quickly cut its target rate to zero when it faces a substantial probability that conventional monetary policy will, in a few quarters, be constrained by the zero lower bound on nominal interest rates. But as discussed in several of the notes you received on December 5, driving short-term interest rates to zero would have costs as well as benefits. Zero or near-zero rates cause a high volume of fails in the Treasury securities market, leading to decreased liquidity in that market and potentially in other fixed-income markets. And if short-term rates remain very close to zero, some money market funds probably will close. Such costs may argue against cutting the target funds rate to zero and driving the effective rate closer to zero.

Whether or not the Committee chooses to cut its target rate to zero, policymakers may find it helpful to expand the use of nonstandard monetary tools. In the current environment, using such tools has two potential benefits. First, they may help the Federal Reserve achieve better expected outcomes on both parts of the dual mandate. Second, nonstandard tools could help mitigate the risk of an even more negative outcome. It may prove useful to group nonstandard tools into four broad categories and treat each category in turn.

The first category is simple quantitative easing. This approach uses conventional open market operations such as buying short-term government debt and conducting repurchase agreements to raise excess reserves in the banking system to a level well beyond that required to drive short-term interbank rates to zero. The objective is to spur bank lending by ensuring that banks have ample funding at very low cost. The Japanese experience suggests that greatly expanding excess reserves, per se, has limited success in spurring bank lending, and thus has modest macroeconomic effects, when banks and borrowers have weak balance sheets.

The second category of nonstandard policy tools is targeted open-market purchases of longer-term securities. The objective here would be to reduce term spreads or credit spreads and thus reduce the longer-term interest rates that are relevant for many investment decisions. The Committee could, for example, direct the Desk to buy a large amount of longer-term Treasuries. The Bank of Japan bought sizable quantities of Japanese government bonds; its purchases are thought to have lowered yields. The available evidence for the United States suggests that adding $50 billion of longer-term Treasury securities to the SOMA portfolio (a bit less than 1 percent of publicly held Treasury debt) probably would lower yields on such securities somewhere between 2 and 10 basis points; a substantially bigger purchase could have a disproportionately larger effect as longer-term Treasuries became scarce. Of course, what matters for the macroeconomy is the effect on private agents' borrowing costs and wealth. Those effects are difficult to predict. Corporate bond yields should decline with Treasury bond yields, though perhaps less if supply effects are the main reason Treasury yields fall. But corporate bond yields could decline more than yields on Treasuries if the Committee's action reduces investors' concerns about downside risks and thus reduces credit risk premiums. Such a boost to confidence could also lift stock prices and household wealth. Another possibility is to instruct the Desk to buy a large quantity of GSE debt and mortgage-backed securities to reduce their yields and thus drive down mortgage rates. As Bill noted, markets reacted positively to the November 25 announcement that the Federal Reserve will buy $100 billion of GSE debt and up to $500 billion of agency-backed MBS; yields on 10-year GSE debt and option-adjusted MBS yields fell about 60 basis points that day, and the spread over 10-year Treasury yields narrowed about 40 basis points. Quoted rates on conventional conforming mortgages declined a similar amount in subsequent days. The magnitude of the announcement effect, which is consistent with estimates from the research literature, suggests that additional targeted purchases of agency debt and MBS could provide further macroeconomic stimulus.

The third major category of nonstandard tools encompasses special liquidity and lending facilities. The Board could choose to expand current facilities or create new ones. Special liquidity facilities for banks and other financial firms are intended to help them meet their customers' needs for credit by providing a reliable source of funding even if the markets in which those lenders usually raise funds are disrupted or if their depositors withdraw funds. Indeed, these facilities seem to be meeting these needs effectively. The Term Auction Facility, or TAF, is one example; the Asset-Backed Commercial Paper Money Market Mutual Fund Lending Facility, or AMLF, is another. Liquidity facilities may also support specific funding markets. The idea is that such markets are more likely to function if borrowers are confident that they will be able to issue and roll over debt and if lenders are assured that they will be able to fund purchases of debt instruments or reduce their holdings of such instruments when necessary. The Commercial Paper Funding Facility, or CPFF, is an example of this sort of program. Although the commercial paper market has not returned to normal, the CPFF has been helpful in supporting overall credit flows and reducing some credit spreads. Direct discount window lending to creditworthy nonfinancial firms is another potential tool for supporting economic activity. The Federal Reserve Act allows such lending, on a secured basis, if the borrower is unable to obtain adequate credit from banking institutions during unusual and exigent circumstances.

Significant further expansion of the System's lending programs would raise a host of issues. New facilities that lend directly to individuals, partnerships, or corporations would have to meet the requirements in section 13(3) of the Federal Reserve Act. The Reserve Banks would take on more credit risk unless the Treasury or other parties took substantial first-loss positions. Moral hazard would become a larger issue. The resulting increase in reserve balances would further complicate the implementation of monetary policy unless the FOMC were willing to accept a federal funds rate of essentially zero. Developing satisfactory exit strategies would be challenging. And the practical burdens of designing and operating a sizable number of new liquidity facilities would be substantial. Even so, some expansion might prove useful if credit conditions do not improve.

Communication and commitment strategies are the fourth and final category of nonstandard policy tools. In current circumstances, the Committee might use such strategies in an effort to lower market expectations of future short-term interest rates and thus reduce long-term rates, or it might wish to prevent expectations of deflation from taking hold. I will mention three strategies that the Committee might pursue.

First, research suggests that it would be helpful for the Committee to be explicit about its longer-term goals, particularly about its goal for inflation. Foreign experience supports the theoretical prediction that an explicit and credible inflation objective helps anchor longer-run inflation expectations and thus can help prevent a downward drift in expected inflation and an upward drift in real interest rates during a protracted period of high unemployment and slowing inflation. That is, an explicit longer-run inflation target can prevent the public from thinking that the Federal Reserve will allow inflation to remain persistently below rates that the Committee has previously said are desirable. The Committee has discussed the pros and cons of a numerical objective for inflation several times. You may wish to consider whether the significant risk of deflation and the near certainty that the zero lower bound will constrain conventional monetary policy have changed the cost–benefit calculus.

Second, the Committee could announce that it will seek to run a somewhat higher rate of inflation for a number of years than it will seek in the long run. Such a promise, if deemed credible, would stimulate real activity by raising inflation expectations and reducing medium- and long-term real interest rates. Researchers have proposed several approaches for dealing with the zero lower bound that would operate in this fashion, including targeting a slowly rising price level. These approaches would be a significant departure from historical practice, and so their pros and cons would need to be evaluated carefully.

Third, research suggests that it would be helpful for the Committee to provide more-explicit information about its views on the likely future path of the federal funds rate. Suppose, for example, that the Committee concludes that it most likely will need to keep the federal funds rate close to zero for some time to spur an economic recovery and to prevent a persistent decline in inflation. In the current environment, an announcement to that effect might lead market participants to expect the funds rate to remain near zero for a longer time than they now think likely; the announcement might also lead to an increase in expected inflation. Those changes in expectations would lower nominal and real bond yields, providing some stimulus to economic activity. Theory suggests that it would be important to make clear that the Committee's current view about the likely future path of policy is conditional on current information and the current outlook and to spell out how the actual policy path would depend on a range of possible future outcomes. Communicating this conditionality could be difficult.

The bottom line from the staff's analysis is that unconventional monetary policy tools can be useful complements to well-designed fiscal stimulus and to steps to recapitalize and strengthen the financial system. Additional purchases of longer-term securities, expansion of targeted lending facilities, and explicit statements of policymakers' goals and intentions all seem likely to be useful when conventional monetary policy is constrained by the zero lower bound on nominal interest rates. Our limited experience with these tools makes it difficult to estimate the amount of macroeconomic stimulus that would be generated by each and thus makes it difficult to calibrate their application. If the Committee and the Board choose to make greater use of nonstandard tools now or in the near future, it may be appropriate to deal with the uncertainty by using the tools in combination. Finally, the Bank of Japan's experience suggests that nonstandard tools are more likely to be effective if they are used aggressively. I'll now turn back to Brian.

MR. MADIGAN.[2] The staff provided eight questions to help frame your discussion, and those questions are included in the package we have placed before you—a single page with a blue cover sheet. I would like to comment briefly on each of them.

The first question deals with the issue of whether policy adjustments should be accelerated when the zero bound looms, as the research literature indicates, or whether the Committee should "keep its powder dry"—for example, if it believes that the announcements of rate cuts have some special ability to buoy confidence. In present circumstances, a key practical consideration is that the System's liquidity programs have already resulted in a very low effective federal funds rate. Absent a very substantial unwinding of those facilities, the effective funds rate will remain close to zero for the foreseeable future even if the Committee adopts a significantly positive target for the federal funds rate. Still, the announcement of cuts in the target rate probably would trigger further reductions in the prime rate and thus in rates paid by a sizable fraction of debtors. Alternatively, the Committee might set a target rate significantly above zero to convey its intentions for the stance of monetary policy over a period longer than the intermeeting period.

The second question concerns your views of the costs of very low interest rates. In the financial markets, very low short-term rates are likely to erode liquidity; fails will increase, and the returns available on some short-term investments simply will not overcome the transaction costs. The staff research concluded that certain financial intermediaries, such as Treasury-only money market funds, will clearly be adversely affected by very low interest rates, and those adverse effects could have spillover effects into other markets, such as the repo market. But not all financial institutions will be hurt by low rates; there will be winners and losers, depending partly on their asset–liability mix. Moreover, our work suggested that financial institutions in the aggregate tend to benefit from the macroeconomic stimulus of monetary policy easing. Overall, judging the point at which the marginal costs of rate reductions exceed the marginal benefits is quite difficult.

The third question asks whether you see a net benefit from communicating your intentions for inflation beyond the next few years or your views about the likely stance of monetary policy over some period longer than the intermeeting period. Specifically, we suggested that you comment on the desirability of stating (1) that you intend to hold the funds rate at very low levels until specified conditions prevail, (2) that the Committee is concerned about the risks of excessive disinflation and will act to mitigate that risk, or (3) that the Committee will be willing to temporarily accept higher rates of inflation in the next few years in order to limit the economic downturn

[2] The materials used by Mr. Madigan are attached to this transcript (appendix 2).

and encourage recovery. The draft statements presented in the "Policy Alternatives" section of the Bluebook include language that you might consider if you decide to pursue one or more of these possibilities.

Questions 4 through 8 cover nonstandard policy tools. Question 4 asks your views about the benefits of large open market operations in agency debt, agency MBS, and Treasury securities. Such purchases are clearly within the authority of the FOMC, and the staff research suggests that they have definite potential to stimulate economic activity by lowering longer-term interest rates, although calibrating those effects is difficult. However, members could be troubled by the fact that purchases of agency debt and MBS could be regarded as steering funds to the GSEs and to particular economic sectors. In your responses to this question, you may want to comment on whether you are concerned by the credit-allocation aspects of such purchases. You may also want to provide your views on the channels through which purchases of Treasuries or agency securities would have a beneficial effect. In particular, do you see the power of such tools as arising from their effects in reducing long-term yields and spreads and supporting aggregate demand through those channels? Or would you emphasize the increase in excess reserves and the monetary base that would accompany such purchases and the possible effects on bank lending?

Question 5 relates to liquidity facilities. As Steve noted, the creation of additional lending facilities is another potentially powerful policy tool for the Federal Reserve—particularly in current circumstances, in which credit flows in some markets are severely disrupted. Some of those facilities appear to have been successful in supporting credit flows and thus economic activity. But even though further additions or expansions could be helpful to credit intermediation, taking these steps would involve a number of substantive issues. Also, the design, implementation, and ongoing operation of such facilities pose real resource challenges to the System. Moreover, these programs raise governance issues. Because such programs generally rely on the section 13(3) lending authority, authorization of these programs is the responsibility of the Board, and the decision to lend is made by the Reserve Bank. At the same time, these programs create reserves and thus potentially affect the FOMC's ability to influence the funds rate.

Question 6 is open-ended: Do you see other nonstandard policy tools besides open market purchases and liquidity facilities as likely to be particularly helpful in current circumstances? If so, what are those tools?

Question 7 returns to governance issues: Given that the Desk has begun to purchase agency debt and MBS, how should the FOMC specify its directive to the Desk? If the Committee instructed the Desk to undertake purchases in order to attain specific objectives for interest rate levels or rate spreads, serious practical issues could arise. Longer-term yields are heavily affected by expectations of future policy rates, which are in turn importantly driven by incoming economic news as well as by various risk premiums. Experience indicates that our operations have an effect on longer-term yields, but to have an effect that is economically significant, the operations may need to be very large. Even then, given the substantial effects of the other factors that affect yields, it might be very difficult or impossible to achieve specified rate levels or spreads. As an alternative, the Committee could instruct the Desk to purchase specific quantities of particular types of obligations. Such an approach is clearly feasible, but its potential benefits may be harder to communicate to the public except in qualitative terms. Another issue is whether the directive should be conditional on market developments. The Bluebook provided drafts of directives in which the basic approach is to specify quantities of purchases over specified periods of time but with some allowance for qualitative judgments about market conditions.

Question 8 comes back to communication issues. If the Committee embarks on the use of unconventional policy tools, clearly communicating the nature of the policy and the intended objectives will be challenging. For example, once the Committee has formally brought its target for the federal funds rate to around zero or otherwise has signaled that further rate reductions will not be forthcoming, there will surely be press stories asserting that the Committee has "run out of ammunition," potentially undermining the Committee's message that monetary policy still can provide considerable stimulus. Overcoming these communication challenges will be somewhat easier if the Committee is able to agree on the substance of what it is trying to accomplish and a broad approach to explaining it to the public. But achieving such agreement is complicated by significant remaining uncertainties about the effectiveness of the various unconventional policy tools, a very uncertain economic outlook, and other factors. In your remarks, you may wish to provide your views of the best practical means for the Committee to address these communication challenges. Thank you. We would be happy to respond to your questions.

CHAIRMAN BERNANKE. Thank you very much. I would like to give special thanks to the staff, some of whom are here and some of whom are not, for an extraordinary amount of work on these difficult topics over a short period of time. We very much appreciate those efforts.

Are there questions for Brian or Steve or anyone else? If there are no questions, we're ready for the go-round on this topic. I'd like to ask your indulgence. There's an awful lot here, and I'd like to go first this time and try to clear out some underbrush and to lay down some issues in the hope that it will perhaps focus our discussion a bit more.

As you know, we are at a historic juncture—both for the U.S. economy and for the Federal Reserve. The financial and economic crisis is severe despite extraordinary efforts not only by the Federal Reserve but also by other policymakers here and around the world. With respect to monetary policy, we are at this point moving away from the standard interest rate targeting approach and, of necessity, moving toward new approaches. Obviously, these are very deep and difficult issues that we are going to have to address collectively today and tomorrow. I want to say that, although we are certainly moving in a new direction and the outlines of that new direction are not yet clear, this is a work in progress. The discussion we're having today is a beginning. It's not a conclusion. Everyone can rest assured that this conversation is going to continue for additional meetings, and today we're not going to be setting in stone an approach that will be used indefinitely. In fact, it would be hubristic to do so, given all the uncertainties and changes that we face. I'm not going to try to address all of these questions, but I thought it would be useful for me to talk a bit, first, about nontraditional policies and then, second, about the important issue of governance, which I know a lot of people are concerned about.

So let me start, first, with nontraditional policies. I want to note that we are working and we should continue to work to improve our control of the effective funds rate. The interest rate paid on reserves is not currently sufficient to keep the rate at the target. That's for a lot of reasons with which you are all familiar. I would just note that the staff is still working. We should not give up on that. The interest rate on reserves may be more effective as people get used to it, as balance sheet constraints ease, and as the rate gets higher if we decide to raise rates. So I think that is still a tool that we should keep and be aware of. There are other strategies—opening term accounts of various kinds, taking steps to encourage arbitrage, using Treasury bills, or perhaps issuing our own bills. In fact, we have had a lengthy discussion in this Committee of alternative structures for implementing monetary policy that involve different ways of setting up reserve requirements.

So first of all, let's just acknowledge that, although we are not keeping the effective funds rate at the target currently, we should not assume that that's always going to be the case. We do have some optionality in that direction. That being said, it's obvious that the effective funds rate now is quite low, and given the amount of excess reserves in the system, we're going to have to find other ways at least in the near term to address the economic crisis. One approach, as was discussed by Steve and others, is communications. Here, in particular, I think, we are at early stages. I don't think we're going to come to any conclusions today. There is a lot of interest in terms of possibilities. The one thing I would say is that, if we do use communications as a way of providing information about future policy moves, we should be very careful to make those interest rate forecasts, if you will, conditional on the state of the economy. It should be very clear, if we give forward guidance of some kind, that the evolution of the policy rate will depend on how the economy evolves. The more clarity we can provide in that direction, the more effective our policy will be and the less problem we will have exiting from that strategy in the future.

The statements that were circulated in the Bluebook gave two examples just for discussion, both of them in alternative A. In paragraph 2, there was some suggested language for using an inflation target as a way of managing expectations. Let me just read the sentence: "In support of its dual mandate, the Committee will seek to achieve a rate of inflation, as measured by the price index for personal consumption expenditures, of about 2 percent in the medium term." The idea there would be to try to stabilize inflation expectations, avert deflationary expectations, and keep real rates lower than they otherwise would be. The 2 percent in that statement is a placeholder. Obviously if we do this, we would have to talk more about what 2 percent means. Is it a permanent level? Is it a temporary number? But that is one strategy.

I would add that, of course, as we have discussed, adopting what might be a de facto inflation target is a pretty big deal, and if we decide to do that, I would like to have some opportunity to consult with the Congress appropriately. But if we decide to go in this direction, I do think that this might be a good time because it is certainly not a negative as far as employment growth is concerned in this context, and so it might be easier to explain.

The other example of communication, also in alternative A, ties policy to economic forecasts. "The Committee anticipates that weak economic conditions are likely to warrant federal funds rates near zero for some time." I note that this is a forecast of policy rather than a commitment to policy, but it does provide some information about the Committee's expectations and should affect market rates. So, again, I think we're at early stages of this particular approach, but it may be promising, and I hope today's discussion will provide some insight.

The second general approach to conducting nontraditional monetary policy is by use of the balance sheet. We have already begun to do this to some extent, as you know. In some respects our policies are similar to the quantitative easing of the Japanese, but I would argue that, when you look at it more carefully, what we're doing is fundamentally different from the Japanese approach. Let me talk about that a bit. The Japanese approach, the quantitative easing approach, was focused on the liability side of the balance sheet—specifically the quantity of bank reserves, the monetary base, or however you want to put it, in the system. The theory behind quantitative easing was that providing enormous amounts of very cheap liquidity to banks, as Steve discussed, would encourage them to lend and that lending, in turn, would increase the broader measures of the money supply, which in turn would raise prices and stimulate asset prices, and so on, and that would suffice to stimulate the economy. Again, the focus of the quantitative easing was on the liability side, and indeed, there were targets, as you know, for the amount of excess reserves or reserves in the system. I think that the verdict on quantitative easing is fairly negative. It didn't seem to have a great deal of effect, mostly because banks would not lend out the reserves that they were holding. The one thing that it did seem to do was affect expectations of policy rates because everyone understood it would take some time to unwind the quantitative easing. Therefore, that pushed out into the future the increase in the policy rate.

So I would argue that what we are doing is different from quantitative easing because, unlike the Japanese focus on the liability side of the balance sheet, we are focused on the asset side of the balance sheet. In particular, we have adopted a series of programs, all of which involve some type of lending or asset purchase, which has brought onto our balance sheet securities other than the typical Treasuries that we usually transact in. You are all aware of the lending facilities for banks and dealers, the swaps with foreign central banks, the promised purchases of MBS, the various credit facilities for which even I do not know all the acronyms anymore. [Laughter] In this case, rather than being a target of policy, the quantity of excess reserves in the system is a byproduct of the decisions to make these various types of credit available. I think that's a very different strategy, and Bill gave some evidence—we can debate it further—that these different policies have had some effects on the markets at which they're aimed.

Again, to distinguish between the balance-sheet, quantitative-easing, liability-side approach and the asset-side approach that we have been using, I do not think—and I feel this quite strongly—that it makes any sense for us to have or try to describe monetary policy with a single number, which is the size of the balance sheet or the size of our liabilities, as the Japanese did. There are a number of reasons for this, but the least important reason is probably just the fact that many of our programs don't have fixed sizes. They are open-ended—like the swap programs, for example. Also, many of the programs have different timing, different durations, maturities, beginning points, ending points, and the like, and so in that respect I think it would be difficult to put in a single number. More important, the programs on the asset side of our balance sheet serve different purposes and have different structures, and aggregating a dollar of MBS purchase, a dollar of commercial paper purchase, and a dollar of swaps to make three dollars strikes me as being apples and oranges. I do not think that is the right way to think about it. Furthermore, and finally, these programs obviously have different operational costs and risks, different risks of losses, different maturities, and most important, they present different issues with respect to the exit strategy, which we will want to talk about. Rather than looking at this as a single number, as a measure of the liability side of the balance sheet, I think we ought to think about it as a portfolio of assets, a combination of things that we are doing on the asset side of our balance sheet, that have specific purposes and that may or may not be effective; but we can look at them individually.

Let me turn now quickly to the governance issues. Before getting into them, let me just say that, whatever difficulties we may have finding appropriate governance, it is certainly the case that the Federal Reserve Act did not exactly contemplate the situation in which we find ourselves today. I think we all agree that getting the right policies for the U.S. economy is the top priority and, whatever we do, we need to find a way to get the right policies in place. Frankly, I think the best way to achieve that—I am going to talk about some details—is through operating in good faith. If we work together and keep each other apprised of developments and our views, we will be able to make this work. If we take too narrow an approach, too legalistic an approach, I think it will be much more difficult.

So let me make a few comments. I think I can focus this best by simply answering the question: If the federal funds rate is at zero and the FOMC no longer sets the target, then what is the role of the FOMC in monetary policy? I have four answers to that question. The first is that the Federal Reserve's outlook is the FOMC's outlook. That is, the FOMC's views about the evolution of the economy, of prices, and of financial conditions will govern our policy decisions. In particular, it is the FOMC's outlook that appears in the minutes, it is the FOMC's outlook that appears in the projections, and it is the FOMC's outlook that appears in our communications. Therefore, if your board members ask you with respect to monetary policy, "Well, what are we doing now?" the answer is, "Keep telling us what you are seeing in the economy and financial markets. We will transmit that to the full FOMC because the FOMC's outlook is the perspective that governs the policy actions that we take."

The second role of the FOMC, I believe, is in the communication policy, both in the narrow and in the large. In the narrow, if we decide to adopt a target, make a commitment about the length of time in which we hold rates low, or make any other kind of verbal promise in our statements or in other contexts, that is obviously the FOMC's prerogative, and I think we understand that that's how it would work.

The third area is the most difficult one, and that has to do with the balance sheet. The law provides a kind of odd co-dependence, if you will, between the Board and the FOMC with respect to the balance sheet. Both the Board and the FOMC are enjoined by the Federal Reserve Act to pursue the dual mandate, and both the Board and the FOMC have powers that affect the size and composition of the balance sheet. In particular, the FOMC has authority over Treasuries, agency purchases, and swaps, whereas the Board has, in particular, the 13(3) authority, which has been utilized a lot lately for credit programs. So we have dual authority, and we have dual or joint responsibility. I think the only way to deal with that essentially is through close consultation and collaboration. My commitment to you is that we will work together even more closely, even more collegially, going forward to make sure that everyone is on board and understands what we are doing with respect to our various programs on the asset side of our balance sheet and that each person on this Committee is well informed and is able to give views and input into the discussions that we have.

The legal authorities are what they are, but I do think that a collective and cooperative effort can help us solve this problem. In particular, I understand that the briefing sessions that I have provided have been useful. I am willing to commit to do those as frequently as necessary, and I am willing to make them into meetings if we need to have two-way discussions and input from the Committee with respect to policy actions. So it is a bit awkward, but I hope that cooperation will allow us to work together on the balance sheet.

Now, there is a special issue here, though, which is the unwind issue. One way in which the balance sheet affects the responsibilities of the FOMC is that, if the FOMC is going to be raising interest rates at some point in the future, clearly, it needs to have information and understanding about the constraints being placed on policy by the size and composition of the balance sheet. So I think that keeping the FOMC as a whole informed about the balance sheet, about the programs, about the constraints that may be placed on the unwind, and about alternative strategies for raising rates once the time comes, is incumbent upon me and the rest of the Board to do. As a down payment on that, I have asked Bill Dudley, if there is time tomorrow, to give you a bit of an update on the TALF, the asset-backed securities loan facility, and talk to you about some issues that it raises for the unwind and for future interest rate policies.

Fourth, and finally, with respect to the FOMC responsibilities, is communication to the public. The public doesn't make the distinction between the Board of Governors and the FOMC. The public understands the Federal Reserve. What we need to do is to come together and decide what policies we want to pursue and then collectively take responsibility for those policies and communicate them in a coherent and consistent way to the broad public. That is the responsibility of all of us, and I hope we can work together to provide everybody with the information that they need to do that effectively. In particular, I am going to say that, given the state of confidence in the markets and in the economy, I hope whatever disagreements we may have that as much as possible we can keep them within these walls. With respect to the public, we need, as much as possible, to communicate a clear strategy going forward.

So those are just some thoughts on governance. I recognize the problems. I am eager to hear your views about how to do it better. I am also interested in knowing how you think these governance issues should translate into the statements and into the directives. I think we have thrown out some suggestions there. We are not in any way wedded to them. If other people have other ideas, we are very open to adopting those ideas. But at least I want to say that I am fully aware of these issues, and I think that however many structures we may impose, nothing is going to substitute for a good faith, collaborative effort in making this work. Let me stop there and begin the go-round with President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Let me echo your comments about the staff's work. They have provided us with a very comprehensive compendium of research and experiences relevant to the policy problems that we are facing now. And they have presented it in a surprisingly digestible form, all things considered. [Laughter] This was no small feat, as you and Brian noted, given the other demands on the staff's time over the past few months.

Clearly, as you said, Mr. Chairman, this is a critical moment for the Fed and the economy. Whatever we do and say at this meeting is going to mark a discrete change in the way we have conducted policy and communicated about it to the public in recent years. Some of this change, as has been noted, is already under way. We exhausted our ability to sterilize the additional reserves created through credit expansion at about the same time we implemented interest on excess reserves. Beginning with this meeting, we have to articulate how we would intend to conduct monetary policy and pursue the goals of our dual mandate with the funds rate at a very, very low level, perhaps zero, and perhaps for a very extended period of time.

Before addressing specifically the questions that Brian has laid out for us, I want to make clear what I think is one of the central issues at hand, and that is the Committee's control over the monetary base and its conduct of monetary policy. When we target the fed funds rate at any rate above zero, we instruct the Desk to manage reserves or, equivalently, the monetary base so as to keep the effective funds rate at our target. Monetary policy has always been about controlling the base, and this continues to be true at the zero lower bound on interest rates. In fact, the path of the monetary base is even more critical at the zero bound because that is how we prevent deflation. By managing the public's expectations about future base growth and future inflation, we manage current real rates and influence real activity. In essence, we prevent deflation by convincing the public that future base growth will be inconsistent with a falling price level.

Just as a thought experiment, imagine that we commit to keeping interest rates at the zero bound for an extremely long time period, say infinitely. If we do that—this is a clear result from the literature—it does not prevent a deflationary equilibrium. But if we can commit to keeping the monetary base at a finite level, not falling, then that does rule out a deflationary equilibrium. So it is key that expectations about the base, not just nominal interest rates, are vital for our ability to prevent a deflationary equilibrium.

I think that focusing on the monetary base is going to help communication, and the reason is that a lot of people out there might not understand the relationship between credit spreads and growth or inflation or various other things that we are doing. But in almost everyone's mind is the phrase "too much money chasing too few goods." It provides, for a lot of people, an intuitive link between money and inflation, and I think we—for all the warts of our policy in the early 1980s under Chairman Volcker—exploited that well, to convey to the public that we were committed to bringing inflation down in a simple, intuitive way. I think that can help us now, analogously, in convincing the public that we are going to be able to prevent deflation because we control money.

The Committee's management of the base or bank reserves is distinct, in my view—as you noted, Mr. Chairman—from the initiatives that use our balance sheet to target specific financial market spreads. Credit market programs may have macroeconomic effects. Indeed, that is their intended effect—to have beneficial macroeconomic effects on growth and inflation. It is the same as other fiscal policy initiatives that also may have macroeconomic effects. But they are not monetary policy, and I think that is fairly clear.

This Committee, I take it as given, is responsible for monetary policy. At the end of the day, monetary policy is about controlling the monetary base or bank reserves. From the point of view of FOMC policy, what is important about the nonstandard tools and credit market programs is their effect on the monetary base. Again, to make this contrast stark, a policymaker controlling spreads cannot prevent deflation. A monetary policy maker controlling the base can. I should note that the ability to pay interest on reserves means that we face this issue generically, whether or not the funds rate is zero, because now, with interest on reserves, we can vary the monetary base independently of how we vary the federal funds rate. This makes it even more important that we make this transition in a way that clarifies the Committee's role.

Turning now to Brian's questions, I think the most important one is number 7, the one about the directive to the Desk. I believe that, if the directive is not going to specify a numerical target for the funds rate, then we need to find a way to specify some numerical target or range for the growth in the monetary base or the growth in bank reserves. Now, I realize that the directive is to the Desk, which has control over the SOMA account, and under a strict constructionist interpretation, that doesn't necessarily equal the quantity of the monetary base. In fact, the discrepancy has gotten fairly large now with all of these credit programs. But if the Committee doesn't provide direction about the interest rate, that is fixed at a floor, and if the Committee doesn't provide direction about a monetary aggregate, the Committee really isn't doing monetary policy, in my view. The Committee can also choose specific asset categories for the Desk to buy for the System Open Market Account, but that shouldn't be confused with monetary policy as long as the monetary base is being determined at the margin by our credit programs. To put it slightly differently, individual Reserve Banks can propose their own credit programs, subject to the Board of Governors' approval. But if they want to monetize those assets, then I would expect that the Committee's prior approval would be required if an alteration in the base target were needed. That is what I would propose for the directives.

Question 8 flows directly from question 7. What we should communicate is that we are targeting a quantity of the monetary base or bank reserves, and this communication should be made in a way that is broadly similar to the way we talk about interest rate policy, stating that our goals are for growth in the monetary base that supports the achievement of sustainable real growth and our medium-term goal for inflation.

Question 3 also deals with communication, but more from the point of view of the funds rate path. I think in the present environment we should communicate that we anticipate that it will be near zero for some time—or something to that effect. Regarding part B of question 3, instead of citing the risk of deflation, I think we should presume some measure of success and communicate that we intend to use the growth of reserves to minimize the risk of inflation running below our medium-term inflation goal. Regarding part C, I think we should stick to communicating our goals for inflation.

Questions 4 and 5 are about the means by which we grow our balance sheet and the monetary base, and I think the Committee should strive to maintain as much distance as possible from credit allocation. To me that means trying to have as little effect as possible on relative prices among nonmonetary assets, and I say that because I don't think we really know enough to second-guess those outcomes. So I would like to see us focus on long-term Treasuries.

Let me close with a few remarks about the Committee. In the 1920s, each individual Reserve Bank made open market operation decisions on its own, in an uncoordinated way. That proved ineffective, and at times we were operating at cross-purposes, one Reserve Bank selling while another was buying. In response, the Conference of Presidents formed the Open Market Investment Committee to coordinate our decisions and make all the purchases through the good offices of the Federal Reserve Bank of New York. But the role of the Board of Governors in that Committee was unclear. In fact, the Board at times tried to order the Open Market Investment Committee to do things that the presidents didn't want it to do, and they came to an impasse. This was remedied with the legislation of the 1930s that created the Federal Open Market Committee.

Now we do things that weren't envisioned then, that's for sure. But, surely, the guiding principle there was that they wanted one single governance body in the Federal Reserve System to be responsible for the monetary conditions in our country, and I take that to be the guiding spirit of the FOMC as well. This is the only body in the Federal Reserve System in which we all come together as one and subject ourselves to the discipline of listening to each other's different views and forming a workable consensus on the way forward. I agree, Mr. Chairman, that we shouldn't be splitting hairs about legal niceties about who is responsible for what. I agree wholeheartedly that we should work toward consensus for that, and that is why I think the Committee has to have a serious role in monetary policy. I don't think that focusing the Committee's decisions on just what the System Open Market Account does and leaving all these other programs to have whatever affect they might on the base is the right way forward. Thank you.

CHAIRMAN BERNANKE. I won't try to respond, but I do want to ask you what your interpretation of the Japanese experience is. They had enormous increases in the base, no increase in M1, and no inflation.

MR. LACKER. First, let me say that there are models and sets of policy rules under which in the short run there is an irrelevance proposition, a kind of Modigliani–Miller theorem, about exchanges of monetary assets for short-term liquid securities that are virtually perfect substitutes and at the zero lower bound are definitely perfect substitutes. So that is definitely true. The point I made about the base in the long run is true as well. It has to do with eliminating certain possible conjectures that the public might make about our willingness to tolerate deflation. In the Japanese case, they were widely known to be quite eager to lift interest rates. It was known that they viewed the problems in the banking sector as exacerbated by low interest rates. They thought that raising real interest rates would provide more discipline and force more restructuring in the banking system. So they continually had to fight to keep the long end of the yield curve down. I don't view that experience as providing the best evidence about what a firm commitment to preventing deflation could be.

CHAIRMAN BERNANKE. President Fisher, you had a two-hander.

MR. FISHER. Yes, sir. I just want to ask a question—again acknowledging that I am the least well educated on this subject matter and not as erudite in my understanding. So this is a tutorial question. What we have been doing is implicitly acknowledging that standard monetary tools are not as effective as they could be because of the financial frictions that we have encountered in the marketplace. So we have been targeting dealing with those financial frictions. My question, President Lacker, is just from an educational standpoint: Do we know how much monetary base or balance sheet expansion would be needed to bring credit spreads back into normal order or to deal with these financial frictions? If we are going to target the monetary base, I worry about the operational consequences of doing so, since it seems to me that is an open-ended question. That is my question.

MR. LACKER. That is a very good question. We don't have any models to draw on because we don't have any data that would allow us to uncover a structural relationship between spreads and the quantity of the base. In any event, even were we to focus solely on our primary objectives for growth and inflation, I think we would have trouble there. I think we would have a great deal of difficulty figuring out a quantitative relationship between the monetary base at the zero bound and our objectives. But we started the way we usually do things—without a serious quantitative understanding of the relationship between the funds rate and growth and inflation, and we groped and groped and found our way. We are going to grope and try to find our way in this new regime, and we are going to have to think hard about it and make some guesses—by trial and error—just the way we learned how to do funds rate targeting.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I, too, want to add my praise to the staff. It was an extraordinary set of memos, as Jeff indicated, making reasonably clear very difficult literature on a complex topic. So I want to thank them. Reading through them was very helpful to me in trying to sort out some of my own views as well.

As we know, the nominal funds rate has been trading well below our target. It is near zero. The real funds rate is about minus 2 percent. The outlook for growth is now even weaker than it was before. In that case, we would want our policy rates to decline with the equilibrium real rate. But the zero bound, of course, may constrain us, and our ability to do that is complicated by the prospect of declining inflation expectations, which make more difficult our ability to let the funds rate fall. Once we are in the situation in which our policy rate is effectively zero, it does become a constraint on monetary policy—as has been well explained. In that case, theory suggests that our policy strategy must focus on ways of raising expectations of inflation, so that, near the zero bound, real rates can decline while nominal rates remain close to zero. One way to implement such a strategy is to credibly commit to keeping policy accommodative for some period of time after the funds rate is no longer constrained by the zero bound and before moving policy back to more neutral rates, thereby raising expectations of inflation. Eventually, however, we would need to bring policy rates back up in line with economic conditions, to avoid a permanent increase in long-run inflation expectations. That will be a tricky task to be sure. What we promise to do with policy in the future is of overriding importance in this framework.

Now, I am sympathetic to this theoretical analysis, but I have some concerns as well. The models that deliver these results are models of full commitment and thus presume that policymakers have already in some sense credibly committed to deliver on an inflation target and to deliver this strategy in the event that the near-zero bound becomes binding, which in these models amounts to having a price-level target as opposed to an inflation target. I would like to think that we are committed and credible policymakers as far as the public is concerned, but, frankly, I have my doubts. I would feel more comfortable if this Committee had agreed to a well-articulated inflation target. Had we done so, the current task before us might have had a greater chance of success.

Unfortunately, we do not have that luxury. Consequently, I am somewhat less confident of how the public and the marketplace will react to our efforts. The trick we face now is how to make these promises understandable and credible. One difficulty is that the optimal policy for many models in these circumstances is very complicated and very difficult to understand, much less communicate. If we hope to affect expectations, we need to explain our policies in a way that the public can understand. Even approximation of optimal policy in these circumstances would involve price-level targeting, as I said, and it would be very difficult to explain, particularly since the FOMC has never formalized its inflation target, let alone a price-level target. I think we would be better off trying to communicate something simpler. First, we need to tell the public that we have lowered the funds rate as low as we think it is beneficial to go.

I do have some concerns about lowering the target rate all the way to zero. We still do not understand why having interest rates on reserves isn't working to keep the funds rate at its target, and there may well be unintended consequences of moving our target to zero, beyond those well articulated in the Board's staff notes. Whether that lowest rate is 100 basis points, 75 basis points, 50 basis points, or 25 basis points is very hard to say. However, given the law of unintended consequences and our lack of experience at the lower bound in this country, I do not want to go all the way to zero. But I think we do need to communicate clearly to the public that, when we reach whatever that effective zero rate is, we are done. A way of communicating that might be by giving a funds rate target or range, say, between zero and some percent.

There are two additional practical advantages I see that argue for bounding our target rate above zero. First, it will allow additional time for banks to become more proficient at managing their reserves, so that our interest-rate-on-reserves regime can become effective. By going to zero, we will effectively shut out that learning process. Second, I believe that when the time comes to raise rates, even by modest amounts, we will be in a better position to do so from a non-zero position than from a zero position. Next, we need to communicate that the FOMC desires inflation rates that are higher than perhaps our long-run target and communicate an inflation range we are aiming for. That is somewhat difficult because we have refused to communicate such a target in the past. We certainly need to communicate that we do not wish deflation in a very weak economy. We also may wish to convey that we are going to keep the nominal funds rate low for some period of time because we desire higher inflation, and that currently seems to be expected. Communicating this serves to increase commitment, and it also limits misunderstanding when inflation rates might temporarily be above a longer-run target. Thus, I think we need to say ex ante that we desire higher inflation rates than currently. As suggested earlier, this would be easier to communicate had we adopted a target earlier.

Regarding the use of nonstandard policy tools—in my view, we are already there. With the funds rate trading below target, we are effectively conducting monetary policy through quantitative easing, which I define as increases in reserves either by open market operations or by any other means. Indeed, expansion of our balance sheet, including unsterilized lending, is monetary policy, as it is monetizing the debt, either public or private. As an aside, I find the description of such a policy as nonstandard a bit peculiar since using balance sheet quantities as instruments of policy has had a long tradition in monetary policy. Indeed, even the Federal Reserve has targeted nonborrowed reserves at various points in its history. In principle, I have no objections to quantitative easings of this form. But if that is how we view the new regime, then we need to publicly acknowledge that we have changed—that we have a new instrument—and communicate how monetary policy will be determined going forward.

Internally, we also need to resolve, as has been pointed out, how decisions about our lending and liquidity facilities will be made, particularly now that these have become the main instrument of monetary policy as opposed to being the mechanism for providing liquidity to improve market functioning, which is then sterilized. The FOMC, and not only the Board of Governors, needs to be involved in decisions about the magnitude of such lending and the choice of assets. In effect, these are choices about the extent of the Fed's balance sheet and its expansion or contraction.

There are a number of ways in which one might proceed. First, I believe we need to publicly convey that we have entered a new regime. Otherwise, it may look as though we have lost control of monetary policy or that the FOMC, which sets the target funds rate, and the Board of Governors, which largely is controlling the liquidity provisioning, are at odds. One obvious step would be to change the directive to the Desk, which is released in the minutes, in a way that clearly indicates that the new regime is now operative and that the FOMC has deliberately chosen to be in that regime. We would then have to communicate something about the size of the balance sheet going forward in terms of limits, ranges, or maximums of some form, such as President Lacker was suggesting. My preference is for the directive to specify objectives in terms of asset quantities rather than the level of non-funds-rate interest rates or interest rate spreads. That is question 7 of the staff memo. These latter two are not under our control and, even more so than before, reflect counterparty risk not liquidity impairments. Moreover, the transmission mechanism from reserve quantities to rates and spreads is not precise enough for these to be operational objectives.

Setting a quantity limit on the size of the balance sheet is more familiar—similar to our experience with operating a reserves-based target. In this quantitative regime, it means that the Board of Governors wishes to implement new lending programs that expand the balance sheet—that is, that are not sterilized. The Board of Governors would have to seek approval of the FOMC to get such an expansion but not necessarily for the composition of the assets.

As I have articulated before, I believe we need to remain cognizant of the line between monetary policy and fiscal policy. I would prefer to see us purchasing Treasuries rather than riskier assets, as I would favor the purchases of long-term Treasuries over new 13(3) facilities. This refers to questions 4 and 5. To the extent that some of our lending programs are targeted at aiding specific markets, my preference would be to shift those assets from the Fed's balance sheet to the Treasury and substitute Treasury securities. This would help distinguish monetary policy from credit policy and preserve our ability to conduct independent monetary policy.

We also need to recognize that, as the economy begins to recover, these programs will need to be unwound, and this may occur before all financial institutions are fully recovered. Some of our facilities have termination dates and will shrink naturally as those dates are reached; but others, like the agency MBS programs or the TALF, will complicate the problem. Under a well-functioning corridor system, should we get there, the target rate will be somewhere between the upper and lower bounds, and we will have to shrink the balance sheet if we expect to hit our target. The reduction may be quite significant if it is accompanied by a general fall in the demand for reserves by banks.

Even if we imagine going to a floor system in which, in principle, we can raise the target rate without shrinking the balance sheet, we need to be concerned about the health of our balance sheet so that we can ensure that we can finance the interest rates on reserves and pay them. Note that if we do go to a floor system, the rate paid on excess reserves will become our instrument, and we will need to agree on how to set that rate going forward. In my view, that rate should be decided by the FOMC.

In summary, under a quantitative easing regime, the magnitude of the quantitative easing should be an FOMC decision. To the extent that the quality of assets on our balance sheet complicates future monetary policy decisions, the asset makeup of the Fed's balance sheet should also be in the FOMC's purview. One option that has been discussed is for the Fed to issue its own debt—other than Federal Reserve notes, I assume. I am uncomfortable with this proposal. It is likely to require congressional approval, and oversight will no doubt be sought since the Fed's securities will be public debt. This potentially generates opportunities for the Congress to control our debt ceiling and perhaps the pricing of our securities, in ways that may limit our ability to conduct independent monetary policy. Thus, I am very skeptical that this would be a good path to follow. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. This is an extremely important discussion, and I am glad that you have arranged a special session. I very much appreciate the comprehensive and outstanding memos from the staff. At our October meeting, we agreed to take whatever steps were necessary to support the recovery of the economy, and that principle guides my thinking on monetary policy at the zero bound. In most circumstances, I see few advantages to gradualism, and certainly whenever we approach the zero bound, I think the funds rate target should be quickly reduced toward zero.

As to the level of the lower bound, my default position is that we should move the target funds rate all the way to zero because that would provide the most macroeconomic stimulus. For example, every 25 basis point cut in the target typically takes about 25 basis points off the prime rate and associated borrowing rates. The institutional concerns about Treasury fails and Treasury-only money market funds merit consideration, but I don't consider them serious enough to ban lowering the target to a very low level. Still, the surprising results we obtained from paying interest on reserves should make us chary about predicting the reactions of financial markets to new circumstances, so there may be some benefits from allowing the funds rate to trade between zero and, say, 25 basis points.

Let me now turn to the third set of questions on communication strategies. Looking ahead, I believe that there could be significant benefits to communicating effectively the FOMC's intentions to hold the target funds rate at a very low level. The Japanese experience at the zero bound suggests that this is one channel that can work, and the evidence suggests that our own guidance that began in 2003 similarly influenced longer-term rates. We learned then, though, that it is hard to convey the conditionality of such intentions and the multiple influences on the optimal setting of the funds rate. Still, I favor trying to include forward-looking communication on policy expectations in future FOMC statements.

We could also consider using the FOMC minutes to provide quantitative information on our expectations. For example, we could reveal the funds rate projections that implicitly accompany our quarterly economic projections, publishing ranges and central tendencies of the federal funds rate along with those for GDP growth, unemployment, and inflation. The advantage of this approach is that it would provide a clear future path to the funds rate that is conditional on the economic environment pertaining to output and inflation relative to our goals. We did discuss this approach before, and I remember that a number of you were uncomfortable with it. But circumstances have changed, and there could be particular value now in adding the federal funds rate to our projections, and in fact, we could consider a trial run.

I believe that, in addition to providing guidance on the likely path of future interest rates, we should become more communicative about our longer-term inflation objective to avoid a decline in inflation expectations as inflation drops over the next few years below desirable levels. One way to accomplish this is to include quantitative information on our longer-term projections in the Summary of Economic Projections (SEP), as the Subcommittee on Communications has recommended. We could go even further to endorse a Committee-wide long-term inflation objective, although that is something that we would have to further consider carefully. We could supplement including longer-term projections in the SEP with language in the FOMC statement that is akin to that used in 2003, when the Committee referred to an unwelcome decline in inflation. Alternative B does take a step in that direction.

The bracketed language in alternative A goes further by specifying a medium-term Committee inflation target. This is a big step, and one that deserves thorough debate. There are theoretical papers demonstrating the potential benefits in a liquidity trap of committing to an inflation rate after the economy recovers that is higher than we would actually want ex post because raising inflation expectations lowers real rates, thereby stimulating the economy. In theory, by committing to more inflation than we actually want later on, we could generate extra stimulus now. But this strategy requires a strong commitment device because the Committee will have an incentive to renege later on when the economy has recovered. I do understand the attractions of such a strategy in theory, but I am not at all convinced that the benefits would exceed the costs in practice. It would be enormously difficult to explain and could harm the Fed's overall credibility as an institution. Moreover, it is not only real rates but also nominal rates that influence housing demand, and any increase in longer-term nominal rates triggered by higher inflation expectations could adversely affect this key sector.

Let me now turn to the nonstandard policy tools that the FOMC and the Board have authorized. I wholeheartedly support the many actions that have been taken to increase liquidity in the financial system, as well as those designed to increase credit availability and lower borrowing costs. Going forward, I support both the purchase of agency debt and MBS by the System Open Market Account and purchases of long-term Treasury debt. Both existing evidence and the market response we just saw to the recent announcements and comments concerning such programs suggest to me that such purchases can push longer-term borrowing rates down. Other new programs—for example, to improve credit market functioning in A2/P2 commercial paper and in commercial and private-label residential-mortgage-backed securities—are well worthy of consideration. Naturally, the potential benefits and costs of each new facility or program need to be assessed before adoption. Formulating the guidance from the FOMC to the Desk regarding how these new programs should be described remains a challenge. I think a possible formulation could have the FOMC setting some objectives for levels or movements in Treasury yields or MBS spreads, but those open up thorny issues, and I think that this is something we really have to study further.

With respect to the FOMC's operating regime going forward, I oppose switching from a regime based on targeting of the fed funds rate to one based on a quantitative target for the monetary base, excess reserves, or the overall size of our balance sheet. The Board or the FOMC or both, in my view, should consider the merits of each program on its own, without any presumption of PAYGO. Most of you probably recall that PAYGO was a budget device employed by the Congress to constrain the federal deficit to a target level. In our case, an overarching decision by the FOMC about the size of our balance sheet or the monetary base would force tradeoffs among our various programs to hit that total, similar to PAYGO.

Imagine, however, that the commercial paper market were to revive, allowing us to terminate the CPFF. Excess reserves would decline, but that decline would have no negative effect on economic activity, so there should be no presumption that some other program should be expanded to restore the monetary base to its previous level. Theory suggests that when the monetary base is increased by purchasing conventional SOMA assets, its expansion should have little or no effect on the behavior of banks or asset prices more generally after the zero bound has been reached. Abstracting from expectational effects, the evidence generally supports this view. While the quantity of money is surely linked to the price level in the very long run, most evidence suggests that variations in the base have only insignificant economic effects in the short or medium term under liquidity trap conditions. This makes the base an inappropriate operating instrument for monetary policy in a zero bound regime. As Japan found during its quantitative easing program, increasing the size of the monetary base above levels needed to provide ample liquidity to the banking system had no discernible economic effects aside from those associated with communicating the Bank of Japan's commitment to the zero interest rate policy. I think my views on this mirror those that you expressed in your opening comments, Mr. Chairman.

With respect to the directive, the version proposed in the current Bluebook specifies the types and amounts of mortgage-related assets that the Desk should buy and the objective of these purchases—namely, to boost activity in the mortgage and housing markets. Language of this type is consistent with the policy approach I support, in which each credit facility program and asset purchase decision is judged on its own merits, according to whether it improves the availability of credit or lowers its cost, thus stimulating the economy. I support this approach to drafting the directive going forward. It is one way in which the Committee communicates the logic of monetary policy. But I think we do need to go further—as you emphasized, Mr. Chairman—in providing clear explanations to the public about the objectives of the various facilities, how they work, and why they are part of a coherent monetary policy strategy.

With respect to governance, I endorse the suggestion that you made, Mr. Chairman, about how we should proceed—that is, to work together collectively to forge and communicate a consensus view of the entire Committee to the public, while adhering to the particular responsibilities that the Board and the FOMC each have according to our governing legal document, which is the Federal Reserve Act.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I also want to thank the staff for preparing these memos. They are very stimulating, a great discussion of a very difficult topic, and I know it was a lot of work. I also want to agree with the Chairman that all comments in this arena are in the spirit of optimal monetary policy, which is the only way I would make any comments here at the table. What is the best policy? What will get the economy back on track soonest? That is always what we are trying to think about here. The truth is that there are lots of ways that you might think about what the optimal policy is, so that is what the debate is about.

Let me begin with the first part of the memo asking for comments saying whether we should go quickly or gradually to zero. I think the most important element is somehow to switch away from nominal interest rate targeting once the target approaches zero because at that point the target just ceases to make any sense and you leave the private sector in the dark about any signals that they might be receiving about where the Committee intends inflation and monetary policy more generally to be going forward. To go quickly to zero is effectively what we have already done with respect to the federal funds rate, at least in terms of the actual federal funds rate, and if I am reading the Greenbook appropriately, according to the staff Greenbook forecast, it is evidently not going to help very much going forward. I think we did go to zero fairly quickly here.

I do not find the Reifschneider–Williams paper, which I know carries some weight around here, very compelling, so let me give the brief reasons behind that. For one thing, you are taking a model and you are extrapolating far outside the experience on which the model is based. That might be a first pass, but that is probably not a good way to make policy, and I wouldn't base policy on something like that. There are also important nonlinearities. This whole debate is about nonlinearities as you get to the zero bound, and in my view, they are not taken into account appropriately in this analysis. You have households and businesses that are going to understand very well that there is a zero bound. It has been widely discussed for the past year. They are going to take this into account when they are making their decisions, so you have to incorporate that into the analysis. That is a tall order—there are papers around that try to do that, and many other assumptions have to go into that.

The third thing I think is important is that, in other contexts, gradualism or policy inertia is actually celebrated as an important part of a successful, optimal monetary policy. Mike Woodford, in particular, has papers on optimal monetary policy inertia, and many others have worked on it. In those papers, it is all about making your actions gradual and making sure that they convey some benefit to the equilibrium that you will get. All of a sudden, in this particular analysis, when you are facing a zero bound, that goes out the window, and I don't think that it is taken into account appropriately in the analysis. Also, it is thrown out the window exactly at a time when you might think that the inertia and the gradualism are most important, which would be in time of crisis when you want to steer the ship in a steady way. So I think that we have a long way to go to understand exactly how to behave near a zero bound, and I would not make policy based on that particular analysis or the subsequent work. But as I stated at the beginning, I think it is a moot point anyway because the effective fed funds rate is trading near zero. We are there. We have arrived.

Does the zero bound impose significant costs on financial institutions? In general, to this I would say "no," as the markets can adjust. More important, markets should be expected to adjust to the optimal monetary policy that we set. We are not in the business of keeping particular markets working in the particular ways that they have worked in the past. I don't want to disrupt things so rapidly that we upset the apple cart. On the other hand, I think the attitude should be that, given enough time, we should expect markets to adjust appropriately. I guess that is what I think about that issue of going quickly or not.

We talked for a minute about communication strategies. Three were mentioned in the memo. The first was to hold the federal funds rate at zero until specified conditions obtain. The second one was the FOMC will act to counter inflation below target, and the third one was to accept higher inflation later. In general, I think that the communication idea is important and valuable to think about in this situation. This is because it plays to the rational expectations, forward-looking aspect of the behavior of households and businesses. My sense is that the benchmark forecasting models embodied in the Greenbook or in a prominent private-sector forecast such as Macroeconomic Advisers may understate these kinds of effects because they don't completely incorporate the forward-looking elements probably as much as we would like. That is because it is very difficult to do.

So I think that the communication thing is the right idea. But I do not think that communicating that we intend to hold the federal funds rate at zero until specified conditions obtain will have much effect because the market already expects that we will maintain the rate at zero until conditions improve. That strikes me as a way of saying that we have hit our constraint, we are bound by our constraint, and so we are effectively doing nothing further. I wouldn't want to get into that kind of message in the communication game, and the communication game is a tricky one. If we went that route, I think deflation would develop. The economy would become mired in a deflationary trap similar to Japan's, which I illustrated last time. In general, my feeling is that understanding the Japanese situation as something like a steady state is more how we need to think of it. In a steady state, the markets are clearing, the expectations are consistent with outcomes, and there is no pretense of returning to the previous situation unless you eliminate that steady state or somehow shock the system out of that steady state. In Japan the policy rate has not been above 1 percent for fourteen years. Fourteen years! That starts to sound to me as though the best way to think about this is that there may be multiple steady states out there, and you may be at risk that the dynamics will send you to the deflationary trap.

Our understanding about the dynamics of those—I know because I have worked on them myself—is very poor. Exactly how they would work and how you would get coordination on one versus the other is a very difficult question. That research is in its infancy. But the concept that you might think about the possibilities in the situation as being multiple steady states should perhaps be entertained more seriously around the table here.

It is much better to say, as far as a communication strategy, that we are constrained on interest rates and therefore we are switching to something else. I think a monetary base, reserves, or some kind of quantity measure would be fine. The reason you want to do this is that you want to remind the private sector that we control inflation and that we intend to keep inflation close to our target. This is a way to tell a story about how you are going to do that—a way to signal to the private sector. So to get the intended effect in the minds of the private sector, you eliminate references to the federal funds target and force them to rethink their views of monetary policy and rethink what we are doing. Of course, this has to be done in a reasonable way. It can't be done in a willy-nilly way. Also, all the issues that have ever come up around this table about monetary targeting and reserves and all the difficulties with that would come up again. But I think it is a great way to make the switch, much as Volcker did in 1979, and get the private sector to reorient to the new reality.

So, yes, it is very important to stress that we will counter inflation below target—I guess that is the second part of this question—and the idea of, well, you could say we are going to accept higher inflation later, perhaps much later. Although being a theory guy I like that because you are playing on rational expectations, it doesn't seem as credible to me with the private sector. The way we are looking at it now, you would be talking far into the future, promising some more inflation—you know, in 2013 we will do 5 percent or something like that. It just seems too far away to have a lot of effect on our situation right now.

Let me talk briefly about purchases of agencies and longer-term Treasuries. In general, I think this is okay, but I do not think we should expect a lot of impact from this. I think the effect will be marginal. I might remind the Committee that the famous Operation Twist from the 1960s was generally judged to be ineffective, and that is why I think the central banks did not, generally speaking, play games on the yield curve in the past. I guess I would prefer agencies to the longer-term Treasuries because of the more direct correlation with the mortgage markets. I think that might help our case a little in this current situation, but I wouldn't expect a lot out of that policy.

Expansion of 13(3) credit backstops—I see this as likely, the way policy is going. I think it is helpful in some circumstances. I would like to see us work harder, maybe much harder, on the metrics for success of these facilities and perhaps rework or discontinue facilities that may not be meeting expectations. We saw some justification here earlier in the report by Bill Dudley, which I interpret as saying that the goal is to reduce risk premiums from what markets say they should otherwise be. Frankly, I am not sure in all cases what the purpose of the programs is. We have a lot of them out there. We have ideas. We should quantify that. We should be assessing, and then we should turn around and say, "This one is working. This one is not working." I would like to see a lot more in that direction. I understand that we haven't done it so far because, obviously, we are running on all cylinders. We are fighting very hard here. But going forward, that is something we should be thinking about.

Our other nonstandard tools are useful. Again, I think we need to reestablish with the private sector that the central bank controls the medium-term inflation rate, even in environments where the nominal interest rate is zero. A simple way to communicate this is to start talking more about reserves, the monetary base, and the monetary aggregates. Again, this has to be done in a reasonable way. We understand that taking out a program is going to change things, and we need to communicate that effectively. We understand that the links between money growth and inflation may not be exactly what we would like them to be, but this is the situation we are in because our interest rate channel has turned off. So in normal times, I would prefer to communicate in terms of interest rates, but that is not the situation that we are in right now.

Let me talk a bit about the directive to the Desk. In my opinion, the directive should be in terms of the quantity of reserves, letting the level of the federal funds rate trade as necessary—again, not unlike the Volcker situation. Presumably, the federal funds rate would trade close to zero on average. The prescription to express the directive in terms of reserve quantities has a long tradition here on the Committee. That language was used at least through 1994, if I have it correct. I remember when I was first in the Federal Reserve System we would talk about the degree of pressure on reserve positions, and so there is ample precedent inside the System to work this way. I think that would keep everything working smoothly in terms of governance. I see no reason not to go in that direction.

The introduction of new programs that are intended to have a minimal effect on the level of reserves, as occurred before September of this year, would not interfere with the reserves objective of the Committee. Others do interfere with that objective, and in that case they would need to be approved here. But my sense of the Committee here, though I can't speak for everybody, is that I don't think we would have any pushback on that, and we would keep the governance thing very clear if we did it that way. So that would be my preference. I agree with the Chairman that we want the best policy. We want to work in a cooperative manner, and I think that is one way to do it here.

When the market turmoil abates, then we should begin setting target ranges for reserves or monetary base growth. Once the crisis is past, then we can begin setting a federal funds target again, maybe coming back with a range initially for the federal funds rate and then gradually moving back into the targeting regime, which I agree in normal times is a much better way to communicate policy.

Let me talk just for thirty seconds on the communication of alternative tools. Above all, we have to communicate that we control medium-term inflation even when nominal interest rates are zero and that we intend to keep inflation near target. That is the overriding objective in this situation. Otherwise, you are going to let inflation probably drift far below target, and the market will be scratching its head about, well, what are you going to do about it? Okay. Thanks very much.

CHAIRMAN BERNANKE. Thank you. Why don't we take fifteen minutes for coffee and then come back and continue.

[Coffee break]

CHAIRMAN BERNANKE. President Hoenig, whenever you are ready.

MR. HOENIG. All right. Thank you, Mr. Chairman. I would like to start off also by saying how much I appreciate this. I think it is an important opportunity for us not necessarily to agree—because committees are designed to bring different views together and, one hopes, to come to consensus—but to hear one another and to feel more comfortable knowing where we are as we move from here. So I really do appreciate this opportunity.

I am going to go through the questions in somewhat the order they were given, and let me begin by discussing the first two questions on policy strategy. The key issues here are how low to move the fed funds rate target and at what speed. I agree with the view that keeping your powder dry is no argument for not going immediately to zero. However, I think that there are other good reasons for not going to zero at this time. In fact, the condition of the financial markets is a strong argument for being especially cautious at this juncture about going toward zero and about how fast if we were to choose to do that.

It is clear from the studies, at least the way I read the studies that were provided—which I would also add were just excellent—that the market dysfunction in some very important markets, including the Treasury market, increases substantially as you move toward the zero bound. At what precise level this occurs is not defined, but evidence does suggest that it is a genuine issue. Indeed, markets are clearly showing signs of impairment in that the effective federal funds rate is trading well below the current target of 100 basis points. It would be unfortunate if our monetary policy actions were to cause major and avoidable effects on the functioning of these markets, especially with the current fragile state of the financial system and when the benefits, as I interpret them, are not obviously significant.

I believe we can minimize the damage, so to speak, in these markets by maintaining the fed funds target above 50 basis points—I prefer 100—and by taking actions to ensure that the effective funds rate trades closer to the target over time, recognizing where we are starting from. The way to do this, of course, is to put limits on the size of the current swaps and liquidity programs—I suppose that is, as others have said, a size limit on the balance sheet—to the point that the Desk can begin to sterilize the reserve injections of these other programs. We are not there, I realize, but I would like to see that as the goal.

Turning to question 3 on communication strategies, there is evidence that communications about the future policy path may have measurable effects on interest rates and other asset prices, especially in circumstances where the markets and the central bank have different views about the future policy path that need to be reconciled. Especially in the United States, a statement about the policy path is likely to be more influential on market expectations than a statement on inflation right now. As to the statement about the policy path, it is possible to have a significant effect on longer-term rates when market views about the policy path differ significantly from our views and there is credible commitment to keep the target rate low for a very long period of time. In general, I think that it is difficult to construct a very specific statement that is credible to markets and does not unduly tie the hands of this Committee. Consequently, if the Committee decides to adopt language about future policy actions, I would prefer more-general rather than more-specific condition statements. I would note that the more-general language we used in '03 through '05 appears to have been more effective than the Bank of Japan's more-specific conditioning statements during the period of quantitative easing.

As to the inflation communications, I would be opposed to a statement that suggests that inflation risks have threatened the dual mandate and that the Committee will act to mitigate this risk. I also expect inflation to come down over the next few months, but this reflects considerable unwinding of temporary factors, as we noted elsewhere, and the risk of deflation is modest at this time. I also would be strongly opposed to a statement that suggests that we would accept higher-than-normal inflation rates in the next few years. While such a statement might be appropriate in a deflationary environment, the U.S. economy is not yet at that point. Instead, our inflation rate has been higher than acceptable for the past five years, I believe in part because of our willingness—understandably, but still our willingness—to err on the side of accommodation. In the future, should inflation come in very low for a sustained period of time, such a statement about accepting higher inflation might have some benefit in preventing a sharp decline in inflationary expectations. But in today's circumstances, such a statement could lead markets again to conclude that we would respond very slowly to higher inflation pressure in the future. I think it would confuse and not actually clarify.

On nonstandard policy tools, I am okay with expanding the purchase of agency debt and mortgage-backed securities and longer-term Treasuries. Right now, all, in my view, are government guaranteed. However, I am not in favor of direct support of private securities through backstop credit facilities or other procedures. I am of the view that we have stepped far in the direction of credit allocation and have undertaken actions that are fiscal measures and not appropriate for a central bank, even in a crisis like this. In my opinion, the long-run costs to the economy and the Federal Reserve of engaging in credit allocation exceed the near-term benefits of supporting limited segments of the market. There is a relative price effect. In terms of agency and Treasury purchases, I agree that the immediate focus should be on reducing the agency spreads over comparable Treasuries. Treasury rates have come down a good deal, but agency spreads have widened. Normally, private yields move with the Treasury rates, as we know. However, the current crisis has largely broken the usual connection. Therefore, I don't think that actions to lower Treasury rates further will have much effect on other rates, and I would concentrate more on bringing other rates down. However, in the coming months, as the economy begins to recover, Treasury rates will likely come under upward pressure. To the extent that markets begin to incorporate a view of the policy path that differs from ours, I think we might want to consider purchases, as discussed here, of longer-term Treasuries at that time or perhaps altering our communication strategy then.

On the form of the directives, I would generally favor quantitative targets for Desk purchases. Although it will be somewhat difficult for this Committee to determine appropriate quantitative targets, I don't think we want to move in the direction of specifying targets for interest rates or spreads for these other instruments because the exit strategy for these approaches could be very disruptive for the financial markets.

In terms of communicating our use of nonstandard tools, if we go that way, I think that the more we say, the better for everyone. It is important to articulate the range of options under discussion; and when they are announced, it is important to discuss not only how they will be implemented but also how they would be expected to help in achieving our objectives. Right now confidence is quite fragile, as we all know, and so it is important that we send positive and constructive messages and not unduly surprise the markets with our actions.

Two other issues not directly related: As we talk about our policies going forward, I think we really do need to spend a little more time talking about what it means in terms of the deleveraging process that is going on. People talk about it freely, but I don't think it is clear in anyone's mind and would perhaps affect our actions. Also we need to talk about the potential effects of the fiscal policies that will be unveiled soon. Thank you very much.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I add my thanks to the staff for the excellent summaries, particularly those that covered the Japanese experience. My reading of that experience argues for acting aggressively and moving directly to whatever lower bound we consider the effective minimum. The economic outlook has deteriorated sharply, and as I look at the incoming data and our near-term forecasts, I find it reasonable to expect that we will see more troubling data by the time of our January meeting.

I concur with the Greenbook assessment that the outlook calls for a cumulative reduction of 75 basis points over the next two meetings. At the risk of jumping ahead a little, my preference is to get there at this meeting. If there is an argument for a more gradual two-step approach, it is that more communication is needed to explain the Committee's strategy and condition the markets for a zero lower bound policy regime. I was on the receiving end of this argument at my Atlanta board meeting last week—which Don Kohn witnessed as a guest—at which some directors strongly resisted moving to the lower bound without, in their view, a clearly articulated statement about how policy will operate going forward. Mr. Chairman, in your speech two weeks ago you made a good effort to prepare the public for the possibility that the Committee may soon have to operate with policy targets that are unfamiliar. But it strikes me that there is a chicken–egg problem of when it is appropriate to lay out the new approach.

Again, I read the Japanese lesson as move aggressively but at the same time communicate very clearly the whys and hows of the policy course. President Plosser pointed out in his memo circulated last week—and I believe President Lacker noted last meeting—that we have at least implicitly entered into a quantitative easing regime already. The fed funds rate has been trading for some weeks near the level that we are likely to find as the lower bound. I think we must move to a decision at this meeting on communication strategy, independent of whether or not we move to the lower bound in one step. I don't see that this need is significantly reduced by delaying the move to the lower bound, especially if that destination is inevitable, as I believe it to be.

On the question of costs of the zero lower bound policy to markets and financial institutions, in my reading of the analysis and the background memos taken as a whole, maintaining the effective funds rate at a level somewhere near 25 basis points may help avoid problems in some markets that would otherwise arrive at zero. I think we have to be concerned that at absolute zero the infrastructure of some markets might atrophy as market participants shift resources in the direction of operations where profits are more attainable. These concerns might argue for stating the federal funds rate target in terms of a range, and I would support a lower bound in the range of 0 to 25 basis points.

As regards communication strategies, to state the obvious, financial market participants would prefer to know as much as possible about the level of rates in a zero lower bound regime, the duration of adherence to that policy, and when and on what basis the policy will change. The Committee can't fully satisfy those needs, but we can provide assurances that equip market participants with a clear framework for planning and anticipating change of policy. I think it is important to communicate that we intend to stay the course with this policy until some combination of materially improved conditions obtain in both financial markets and the general economy. That is to say, we should indicate that the policy is not short-term shock treatment to be quickly reversed, unless, of course, conditions dictate.

As regards indicating specific conditions that would inform a change of policy or a change of course, I favor an approach that addresses conditionality in general terms using language such as "the Committee intends to hold the federal funds rate target at this level until such time that it judges conditions are present for material and sustained improvements in financial market functioning and economic growth." I prefer to reference general economic conditions rather than to use phrases like "near zero for some time" as in Bluebook alternative B. Further, I think it is appropriate to reinforce that our policy will be calibrated based on our longer-term inflation objectives. I am not comfortable with formal statements indicating that the Committee is willing to accept higher rates of inflation than it normally would find desirable. In my view, the goal is to avoid entrenching expectations that deviate too much from our explicit or implicit price stability objectives in both inflationary and deflationary directions. I think this goal is best pursued by stating our commitment to medium-term price stability. This statement can be in general terms, but I would also support the more explicit numerical reference in Bluebook alternative A.

As regards more purchases of agency debt, agency MBS, and long-dated Treasuries, my view is that open market operations should be conducted in the manner that enhances overall market liquidity in the most efficient and least disruptive way. This may well be by purchases of agency debt and MBS beyond the level announced. However, to the extent that enhancing overall market liquidity requires efforts to directly manipulate prices in particular markets beyond the federal funds market, I think we may be better served by developing specifically targeted facilities to do so.

As regards the further expansion of liquidity facilities, to date we have attacked dysfunctional market conditions in the interbank funding market, the Treasuries market, the commercial paper market, the mortgage market, and, shortly, the asset-backed securities market. The more we migrate with these facilities in the direction of general corporate debt and other nonfinancial issuers' markets, the more our policy actions involve contentious issues of moral hazard, possible distortion of the necessary process of relative price discovery, and the appropriate division of labor between the central bank and the Treasury. I think that we just need to keep this in mind as new facilities are considered. The extension and broadening of existing facilities, and possibly new facilities, may be necessary. I judge that the broad policy of targeted facilities has been successful to date.

Regarding nonstandard tools, I find myself in agreement with the thrust of President Plosser's suggestions. In a quantitative easing regime, it makes most sense to express our directive in terms of a quantitative target. And as regards your comments earlier, Mr. Chairman, I tend to look at this target question as a tradeoff between targeting quantities versus prices or rates, and I believe that the quantitative target approach is the correct approach, even if we decide to operate with the common understanding that our short-term objective is, for example, to generate a particular path for long-term Treasuries or agency debt. Based on my reading of the literature and history as well as on my own experience, I have doubts about our capacity to reliably control specific relative asset prices, at least in markets unlike the federal funds market, where we are the monopoly supplier of the asset being traded. But that does not preclude setting quantitative targets for the purchase of particular assets and evaluating the appropriateness of those targets against a variety of outcomes, including the interest rates that emerge in those markets.

I am, however, predisposed toward the line of thinking expressed by President Lacker in his pre-meeting memo. By choosing to express the directive in terms of the monetary base or some measure of reserves, the decisions of the Committee remain in the range of traditional monetary policy. My conjecture is that a reserve base quantitative directive would help to draw a clear line between traditional monetary policy decisions in the purview of the FOMC and the enhanced credit policies implemented under 13(3) authority.

Let me move to the communication approaches. Again, internalizing the Japanese experience, we will be well served by a significant and coordinated communication effort. Our press statement might be supplemented by an additional explanation of whatever new operational procedures we adopt, followed by a public statement, perhaps even a press conference, by the Chairman. Throughout this crisis, we have been provided excellent support in the form of talking points. These have been a great help to me and my staff in providing accurate and timely information on the various policy actions taken by the Federal Reserve. With similar assistance in this case, I think we can collectively commit to providing the sort of common voice on the facts that will promote public understanding of the direction in which we decide to head. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I, too, would like to add my thanks to the staff for an excellent set of memos—very good analysis. I would agree with pretty much everyone that the economic outlook and financial stress warrant further relief for financial conditions, so I am going to be supporting, ultimately, further quantitative easing as needed. I have to admit that I am not quite sure what the most effective form of that easing is. It just doesn't seem obvious to me. But I certainly embrace your suggestion, Mr. Chairman, of continuing the regular briefings, and when necessary, those should be meetings to affirm certain programs that are on the table. I agree with all of your comments about how important confidence is.

Let me turn to some of the specifics of the questions about the standard policy issues with the fed funds target. With a deep recession looming and inflation receding, I see no reason to keep our fed funds powder dry. There is no reasonable uncertainty at this point about the deepness of the recession or the financial stress, and I think the economy would benefit from further financial accommodation. Because we can't really hit our fed funds target because of the breadth of our lending programs that are on our balance sheet today, I think the damage to the Treasury repo and money market mutual funds is unavoidable at this point.

For our policy actions, I think that we should continue to communicate in terms of our objectives. In my opinion, this strategy covers most of the issues asked of us. The fed funds rate will be low for some time under our forecast. I don't think there is much doubt about that, and our forecast helped with that. Disinflation risks are part of this outlook, and I think that should be well understood. We can communicate that in our speaking. If our inflation target were explicit and we talked about it more—higher future inflation expectations than just, if it were the case, ½ percent or lower—that would be part of the communication calculus. As things stand, our long-term projections may be adequate here, but more explicitness in general would be helpful. It is interesting to me that alternative A encompasses all of these in relatively muted language. Frankly, if we are expecting a big impact from that statement, I think we need to include a bold font typeface, [laughter] because I don't think it will be picked up necessarily. But I think it is really well done.

In terms of the questions on particular interventions, the memos brought forward pretty clearly that the effect of the interventions depends on the size of the operations and where the markets are. The memos were very good about talking about individual markets and making me aware of a number of details, but they were often pretty much in isolation of how they would flow through to other markets. It is not exactly clear to me how important that segmentation or separation is to achieve the goals that we are hoping for from those interventions. I suppose in well-functioning markets you might expect more of those funds to be flowing across those markets, and so you would be generally providing market liquidity. It would flow around. In the current situation, with more stress, there probably is more separation. Is that ultimately going to mean we are more effective? I am not even sure because there is the added stress that has to be dealt with. So the particular interventions are not exactly obvious to me, and portfolio rebalancing could have implications.

In one of them, there was a correlation matrix—for a particular size of operation, where agencies are influenced in one way or Treasuries are influenced—about when we would see other prices move around. That is possibly a guide to this leakage. But, of course, those are unconditional correlations, as I understood them, and I am not exactly sure how the exogenous interventions that we are talking about would translate from those correlations. It is really an identification problem at some level. My takeaway from that is that I find most comforting the quantitative easing additions that improve total market liquidity. It seems to me that the Treasury and agency purchases are the safest. When we get into credit allocation, we have these facilities in place, and we will probably need to do more. Mr. Chairman, you talked about the unwinding consequences that the Committee will have to worry about, and I think that they are also pretty important.

Last, on the nonstandard approaches for quantitative easing and what that means for the Desk, I guess this is a harder problem with the dual governance issues than I had really anticipated. I would have thought that it was relatively straightforward—once we hit the zero bound on the funds rate that we would identify that we need to expand the balance sheet. I kind of like it in terms of the asset side. The Committee could authorize a broad range of what that would mean. We could reaffirm the existing lending programs—not approve them, for that is the role of the Board—and point to the important role that they are playing. Our statement could provide guidance on the sizes, which would pretty much just be a restatement of the existing sizes of the programs. But we could provide ranges of how the Committee might expect that to be conducted over the intermeeting period if something arose that required an addition, or we were being briefed on new programs as they were rolled out, that could be part of it. All of that said, I accept your good faith approach—the more we talk and the more that we understand this and are consulted, it should be adequate.

In terms of communicating to the public, under the approach that I just mentioned we would basically state that the fed funds target is essentially zero because of all of the lending facilities. We'd have some statement about the range of the balance sheet, something that is not supposed to be so constraining but that would be somewhat helpful. The descriptions of the Fed lending programs would be part of that—they are well done—and the term sheets, and we would reinforce our commitment to the policy mandates that we have in our statements and our forecasts.

So, just to conclude, I think we can go further down the quantitative easing policy path. I am not really convinced that this is going to do everything that we are hoping, and I am a little concerned as we get to the point where we have an intense desire to effect more that we might tend to disagree a little more. But I am confident that we will think it through very carefully. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I want to join the others in thanking the staff for their work. These are very difficult issues, and I think you have brought to bear a lot of what little information we have on these subjects and have kind of kept me out of trouble for the last week. My wife thanks you as well. [Laughter]

I think the questions in the first set are largely moot, as a number of people have said. We are already close to the zero bound, and because I think moving there aggressively under the current circumstances is the right thing to do, I don't have any regrets about that. Like President Yellen, I came into this situation, at least a couple of months ago, wondering why zero wasn't the right lower bound. I recognize the market issues that might obtain—sort of as President Bullard said, I wonder whether markets won't adjust as we go on—but so close to zero, the difference between 6½ basis points and zero isn't going to matter very much. But I think we ought to keep our eye on how markets are functioning, whether they adjust, and where we should be.

Now, once we are at a minimum—and I think we ought to get wherever we are going at this meeting, as soon as possible (a number of people have said that, and I agree)—we can't influence actual expected short-term rates with our actions. We do need to rely on other methods to change relative asset prices—longer-term rates relative to short-term rates, private rates relative to government rates, nominal rates relative to expected inflation—and that is where the communications and the size and the composition of the asset portfolio come in. Both the communications and the portfolio actions can be effective and influential, but I think we need to recognize that we are losing our most powerful policy instrument. The effects of these other aspects of our policies are uncertain, and it will require some trial and error to figure out where we are going.

With respect to communications, I do think it would be useful to tell people the conditions under which we expect to keep rates low and the conditions under which we would be prepared to raise interest rates. I think we can tell them if we think it is going to be soon or if it is going to take some time. But I agree with your point at the beginning, Mr. Chairman—and President Plosser and others said this—we should emphasize the conditions rather than the time period. We shouldn't commit to a time path. I think something like this should help long-term nominal rates better reflect our expectations for the path of policy and could be especially important if markets come to anticipate a firming before we actually anticipate firming. It could come into play, particularly in the context of some massive fiscal stimulus, which seems to be coming. I don't think we want the effects of that fiscal stimulus diminished or crowded out by increases in long-term rates that are based on a false assumption about the effect of the fiscal stimulus on monetary policy.

I think being clear about where we want inflation to be over the long run will probably help anchor inflation expectations a bit better—keep them from drifting down when inflation itself is very low and keep real interest rates from rising—and thereby reduce the odds of persistent deflation taking hold. We will have an important opportunity to take a step in that direction if we agree to our longer-term forecasts in January. As President Yellen noted, the Subcommittee on Communications is recommending that. I think voting on an inflation target would be a substantially bigger step. That is, we would have to reach agreement on that. It could be a more powerful signal of our intentions, and it might become necessary. I certainly think we ought to discuss it. It has a lot of implications that we need to look at, including where we will be in a couple of years. I think we need to be careful.

A number of people—outside commentators, anyhow—have noted that they thought that we kept our eye too much on macro variables in the low inflation period and that gave rise to these asset-price increases. I disagree, but I think it is an open question. I have seen comments from other members of the FOMC wondering whether we should look at more than just the path for consumer prices when we are setting monetary policy. But let's not do something now without thinking about how it is going to play five or ten years down the road. I also agree with your point, Mr. Chairman, about congressional consultation. Having an inflation target won't have any effect if it is repudiated by the Congress. As soon as we make it, it could have a negative effect.

I think changes in the size and composition of our portfolio can affect relative asset prices. I guess I think, President Evans, that changes are more likely to be effective at times like these, when markets are illiquid and participants have very, very strong preferences for one sector or another. When private parties seem unwilling to lend to each other, substituting Federal Reserve credit for private credit can be quite effective. Carefully designed programs can reduce the cost of credit and increase the availability of capital to households and businesses. I see where we are as a natural extension of where we have been. Really since August 2007, we have been using our balance sheet to try to stimulate credit markets. At first we sterilized that by selling Treasury securities. Then we sterilized it by the Treasury selling Treasury securities. Then that program ran out, and we thought we could sterilize it by interest on excess reserves, and it didn't work. But I don't think we have crossed a sudden barrier in the last month or two. It is true that the base has begun to rise because we have run out of the other sterilization options. But I do think it is a natural extension of where we have been for a while.

That brings me to the monetary base. I find myself more skeptical about the effect of increases in the monetary base per se than what I hear around the room. Such increases I think are supposed to affect asset prices by inducing banks to substitute into higher-yielding assets. Give them a bunch of reserves, and they substitute into higher-yielding assets like loans. But I wonder how effective that is when short-term rates don't decline with the increase in the base because we are pinned at zero—that is, we are in a liquidity trap—and when banks are reluctant to expand portfolios because they are concerned about capital and their leverage ratio. So I don't really understand the channels through which an increase in the monetary base, under these circumstances, is supposed to affect economic activity. We have seen a huge increase in the base over the last couple of months and no effect on the money supply. Now, that is very short term, I agree. Your observation, Mr. Chairman, was that we saw a big increase in the base in Japan. I agree with President Lacker that they weren't as dedicated to that as they might have been, but I just don't see any evidence that the base isn't going to be absorbed in a declining money multiplier rather than an expanding money supply and increased activity. I don't understand the channels. I think the base, as we are setting this out, is determined by the people who use our credit facilities. I think that is very important, and I don't want to upset that. So I would be very, very hesitant to restructure the directive in terms of the quantity of reserves or the monetary base. I would have to understand much better what that means, and I wouldn't want to constrain the use of liquidity facilities with such a restraint.

I think the situation in the 1970s and early 1980s was very different. First of all, the October 6, 1979, meeting that went to monetary targeting was a natural evolution of a lot of work that had relied more and more on the money supply as a way of communicating about policy over time. Second, it was about constraining inflation, holding it down. I do agree, Jeff, that "too much money chasing too few goods" is something that people kind of understand. I am not sure that they understand the opposite—too little money chasing too many goods, or whatever, as a cause for deflation. I think it would be very, very difficult to communicate what that meant and how that was supposed to work. So it is a very different situation than we had back then.

I do think we can help by increasing and directing our asset expansion in particular directions. We have seen evidence, as Bill showed us in the MBS and GSE purchases and the commercial paper facility. Also I favor the consideration of purchases of long-term Treasury bonds. I think that will help to lower longer-term rates in an environment of large liquidity and term premiums. I would consider expanding our purchases of MBS and GSE debt, if it looks as though they might help bring down mortgage rates. I agree with others who have said that they would be very reluctant to specify such operations with a rate target because I don't think we can really control that. So I think that talking about quantities would be much better, as we have done with the MBS. I would also continue to look for other ways to use our discount window to help restart credit markets or substitute for private markets in which the functioning is impaired, and I would be open to a variety of possibilities.

I agree that credit allocation is very uncomfortable for the central bank. We are into that. We have been into that for a while. I wish we didn't have to be there. But I don't see any evidence that the private sector is going to start lending anytime soon on its own. If I saw that some of those other markets with which we weren't involved and weren't likely to get involved—like the junk bond market that Bill showed us in that chart—were beginning to open up without our help, that would be fine. But nothing is happening out there in the markets that we are not touching. I don't think that is only because everybody is waiting for us to intervene in those particular markets, because there are a bunch of them that they know we can't or won't intervene in. So we need to remain open to possible further credit market interventions.

This raises very difficult governance issues. Our inability to sterilize and the huge increase in our balance sheet raise very difficult questions about how the Board and the Reserve Banks together carry out their shared responsibility for achieving the objectives of the Federal Reserve Act. It is not so much about legalities as it is about how to reach the best decisions and how best to explain those decisions to the world at large. We have always worked in a collaborative and cooperative way, and I think we need to continue to do that. Crisis management strains the normal collaborative and deliberative mode of Federal Reserve operations. Decisions get made on short notice, often over a weekend, but as you said, Mr. Chairman, we can work at improving our collaboration. The FOMC, as a body, will continue to have the major influence on our communications about the outlook, the likely path of rates, and the acceptability of the inflation outcome. The key elements in our communications have always been and will remain under the control of this group, and that is a large part of what we will be doing. I agree that we should, when consistent with fulfilling our obligations to protect financial stability, consult more and earlier on liquidity facilities.

I hope that we can emerge from this discussion and subsequent ones with an agreed-upon framework for what we are doing and what motivates it under these unusual circumstances. I think we—the Federal Reserve System, the FOMC, all of us—should consider issuing an explanatory document on these matters that we can all agree to. I wrote this before this meeting. Now that I have heard the meeting, I am not sure it is possible. But I think it might be worth the effort. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Are you in charge of drafting it? [Laughter] President Stern.

MR. STERN. Thank you, Mr. Chairman. Let me make some comments, first about nonstandard policies, then about communication, and finally a bit about the balance sheet, governance, and so forth. With regard to the nonstandard policies, Bill Dudley's charts 24 and 25 showing the spreads narrowing with intervention and spreads tending to widen elsewhere seem to make a pretty compelling starting point at least, not only for the value of the programs in place but perhaps for considering additional ones. I guess I am kind of wary about that at this point. A sentence in one of the staff papers that pertains to this—let me also compliment the staff for the quality and the volume of what they have produced here—caught my attention: "It is difficult to provide specific recommendations for further intervention at this time, in part because facilities that are most obviously valuable to address current conditions have already been put in place or are in train." That is one concern I have—that we may be heading toward diminishing returns. In addition, as I think somebody has already observed, there is a possibility that, if we carry this too far, we interfere with what would otherwise be normal and healthy market adjustments. Some of that is going to have to work its way through. Finally, one thing from the Japanese experience is the so-called preservation of zombies, which, whatever you might say about its short-run value, clearly wasn't of value to the long-run health of the economy. So my preference as far as nonstandard tools would be to emphasize purchases of longer-term Treasuries and of GSEs and mortgage-backed securities. At least at this point, that is where I would want to put my emphasis.

With regard to communication, as I think President Evans said, reiterating our longer-run objectives, indicating—given conditions as we perceive and expect them—that the funds rate is likely to remain low for a considerable period of time or, alternatively, that reserve provision is going to remain generous, however we want to say it, is acceptable. There could be some value, if we can get there, in specifying an inflation target, and certainly the effort to provide longer-term steady-state forecasts will work in that direction. I think we need to be a little careful, though, as Governor Kohn suggested, to think through a variety of issues that are associated with this. I can even imagine that, even if we were to agree on an inflation target and even if the Congress had no objection, it might be a bit of a distraction at this point and there could be a lot of debate external to the System whether it is the right target and why or why not, and so on and so forth. Of course, that is not our principal concern at the moment.

With regard to the balance sheet and governance issues, I certainly can get comfortable with the consultative, collaborative approach you described. There might be some value from a credibility point of view—I put this more as a question than a conclusion—in trying to specify some numerical range for the base, reserves, or something in that the public could monitor whether in fact we are doing what we say we are doing. To the extent that we are concerned about the possibility of excessive disinflation or of deflation, this would be a way for the public not only to take our word for it but also to monitor that in fact we were conducting policy in a way consistent with that. President Lacker, in his discussion, indicated that emphasizing the base was a way to emphasize, at least in the longer run, that we weren't intending to let inflation get too low. I put this as a question—this could be a way of helping credibility because the public could monitor it. Thank you.

CHAIRMAN BERNANKE. President Rosengren.

MR. ROSENGREN. I would also like to join the chorus of people thanking the staff, in particular the staff members who were working on the memos on Japan. Having done some work on Japan myself, I know that getting the institutional details right is far from easy, particularly when you are not a native speaker. So I much appreciated the work in that area.

The probability of a severe economic downturn accompanied by deflation is too high, and the effective fed funds rate is already very close to zero. This combination calls for aggressive, nontraditional policies. My reading of the parallel Japanese experience highlights two general principles. The first is one that President Stern highlighted. There is a macroeconomic impact from what we do in bank supervision. Banking problems should be addressed expeditiously, with realistic write-downs of problem assets and recapitalization of problem banks. In particular, we should prevent perverse incentives where problem borrowers are supported while healthier borrowers are starved for credit as banks try to satisfy balance sheet constraints and avoid further loss recognition. Second, monetary and macroeconomic policies to address financial dislocations should be proactive and forceful rather than released gradually over an extended period of time. In the context of the questions that we have been asked to address, I'd like to encourage us to take three actions.

First, I would explicitly state that the Committee seeks to achieve a core PCE inflation rate of 2 percent in the medium term. For the second time this decade we are approaching the zero nominal interest rate bound. Setting too low an inflation target threatens to place us in our current predicament too often. In contrast, by setting an explicit target at 2 percent, we will indicate our resolve to take nontraditional policies necessary to achieve that goal. Because the inflation target adopted under the current circumstances would be designed to raise inflation expectations and stimulate the economy, this may be a particularly propitious time to adopt such an explicit target. A 2 percent target would also be consistent with our own revealed preference as the core PCE inflation rate has averaged 1.94 percent, very close to 2 percent, over the past ten years.

Second, during the past recession, 30-year conventional mortgage rates reached 5¼ percent. The current rate has been hovering at 5½ percent and has reached that level only since we announced our program to purchase $600 billion in GSE debt and mortgage-backed securities. The housing sector remains the epicenter of our problems. Given the current outlook, I would suggest using facilities to move toward an interest rate target, for example, by reducing by 100 basis points from current levels the conventional 30-year mortgage rate. Lowering the 30-year conventional mortgage rate would reduce the cost of purchasing new homes, encourage refinancing by those with sufficiently high credit scores and equity in their homes, and support fiscal policies that are targeted at more-troubled homebuyers. It would help troubled and healthy homeowners, stimulate the most distressed area of our economy, and help financial institutions exposed to problems in housing. Such a target would be understandable to the general public, and actions already taken have made some progress in this area and serve as an example. I would focus on the mortgage rates rather than the Treasury yield curve because lower Treasury rates seem to be having little effect on rates paid by households and businesses, and the desire to avoid credit risk has already brought 10-year Treasury rates to lows not seen in most recent recessions.

Third, our facilities for short-term credit have been successful. Short-term commercial paper rates have fallen as a result of our programs, as was highlighted by Bill Dudley, and the rollover risk at the end of the year has been mitigated by the commercial paper program. Increasingly, however, I have been hearing complaints about banks pulling lines of credit when they are up for renewal primarily because the banks are facing balance sheet issues. One possible remedy might be to extend our commercial paper facility to highly rated firms for longer maturities than are covered by the commercial paper market. All three suggestions would be easily communicated and understood by the public, would address directly the areas of the economy in which financing has become particularly difficult, and would highlight our resolve to avoid a deflationary economy, such as Japan experienced for over a decade.

I would just end with the note that I agree with the Governor Kohn on the monetary base for two reasons. The first is that I do not think our facilities have been particularly well designed to set a quantitative target. Many of the facilities are open ended. Go through the following thought experiment. Suppose a money market fund once again breaks the buck. The AMLF will probably go up $150 billion or $200 billion. I would expect the commercial paper facility to go up. I would expect that most of the bank facilities would also go up. If we were limited by a quantitative target at the very time that we actually want those facilities to be expanding, we would be constrained. I do not think that is a good idea in the current situation. The second reason comes from my reading of what happened in Japan, and this goes to some of the remarks that the Chairman made. The monetary base in Japan did expand very rapidly. When banks are capital constrained, expanding reserves very rapidly does not translate into an expansion of the broader balance sheet. So we could very easily see a situation in the United States in which banks continue to be capital constrained for some time. Despite increasing the monetary base, we might not see an expansion in terms of other assets. That is exactly why I agree with the Chairman that we should be focused on the asset, not the liability, side of the balance sheet.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I also want to start by thanking the staff for the excellent background materials they provided. While I certainly wish we were not in this circumstance, I do think that this is a critical conversation for us to be having at this meeting, and the background materials were extremely helpful. I am going to proceed directly to the questions that Brian provided as I believe they cover the major issues well. I have some general answers to the questions, but I think that we are going to be learning a lot in the process of implementing policies into ever more uncharted waters.

On the question of whether the Committee should quickly move the target fed funds rate toward the zero bound or get there more gradually, I strongly support moving quickly. I agree with the memos that the Japanese experience points to the value of moving aggressively. Also, we have already moved beyond the targeted fed funds rate as many have commented, and so we are merely confirming a reality.

On the questions pertaining to the costs to financial markets or institutions and the limits to our rate reduction, I think the notes covered very well the costs to some money market funds. Bankers in my District have also expressed concerns about additional margin squeezing that they will face with a lower fed funds rate. So, yes, there are significant costs to financial markets and institutions. However, I believe that the current environment and our need to allow the fed funds rate to trade close to zero trumps these costs, and in my view a 25 basis point fed funds rate is an appropriate minimum.

Regarding the question about the communication strategy, I think another lesson that we have learned from the Japanese experience is the role of effective communication and the role of anchoring inflation expectations. So I do see the benefit in communicating that the Federal Reserve intends to hold the target fed funds rate at a very low level until specified conditions are obtained, and that the Committee sees a sizable risk that inflation in the coming quarters could be appreciably lower than is consistent with price stability. I also see that there may be some value to communicating that our policies might result in a temporarily higher inflation rate in the future, both to indicate this possibility and to signal a willingness to make sure that the risk of deflation dissipates before we alter our course. Although we have not adopted a formal inflation target, I do believe that the release of our longer-term projections as suggested by the Subcommittee on Communications will be helpful in managing inflation expectations.

Moving to questions 4 and 5 regarding nonstandard policy tools, my own preference is for a mixed strategy—that is, some direct Treasury and agency purchases and some expansion of our private asset purchases using the TALF. I support your view, Mr. Chairman, that we should keep our focus on expanding the asset side of our balance sheet. I think we should consider increasing the purchase of agency debt and mortgage-backed securities beyond the levels that we have already announced. I also see advantages in initiating large-scale purchases of longer-term Treasury securities. These actions should help to lower interest rates across a broad spectrum of longer-term assets. As we have talked about, direct purchases also fit more naturally into the FOMC's governance structure, whereas the TALF-like approach is more awkward to fit into the FOMC's purview. As some have commented, direct purchases might expose our System Open Market Account to some capital losses, but that seems an acceptable risk for monetary policy in such a challenging environment.

I do think that the focus of our FOMC meetings next year should be on evaluating and adjusting the composition and size of our purchase of securities in response to changing economic conditions so that the directive need not build in explicit conditioning on market and economic circumstances. Further expansion of our credit backstop facilities under section 13(3) is also likely to be beneficial in current circumstances. I think the CPFF has been a helpful addition to our facilities, and I am hopeful that the TALF will be equally effective. So, in summary, I favor applying all of these approaches and remaining flexible. I also believe that a clear starting point on how the Committee would formulate its directive would be to direct the Desk to purchase specific quantities of assets. As a formal matter, we might need to include "up to" in our directive language, but we should anticipate that the Desk would be successful in meeting that objective. I think that the uncertainty surrounding the effects of our actions makes longer-term interest rates or spreads too unreliable to be communicated as targets.

Finally, on the question of effectively communicating nonstandard policy tools, I liked the language in some of the Bluebook alternatives for our policy options. However, because of the historic nature of implementing nonstandard policy tools, I think that a good communication plan should also include a formal press conference or a speech in which, Mr. Chairman, you announce the changes. That would serve to emphasize the change in our procedure and eliminate some of the uncertainties about the role of the fed funds rate target. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. First Vice President Cumming.

MS. CUMMING. Thank you. Again, I'd also like to thank the staff for the excellent notes. It's useful to start out with our near-term goals, as most of us have done, to provide stimulus and support for the economic recovery and to prevent too large a fall in inflation. The root problems, I think, are worth focusing on for a second: insufficient global demand, hurdles to economic activity from a severely impaired financial system, and as I'll report tomorrow, behavior that is influenced by confusion and fear among businesses and households that are tending to reinforce the downward trend of the economy.

That environment, I think, gives us some goalposts to look for in terms of framing the strategy. I find very appealing Marvin Goodfriend's characterization of the duality of the central bank's policy. We have a monetary and what he calls a credit policy at the same time. In normal times setting the fed funds rate influences financial conditions, especially credit markets, in a fairly predictable manner, and this Committee from time to time has discussed where overnight rates and financial conditions have diverged. In these times, we're observing a major disconnect between overnight rates and financial conditions that is reflected in huge spreads but also in a lack of transactions and in nonprice rationing in markets.

So coming back to the question of what some of our goals are: To address the problems that we see, communication is really the essential element, and we should be aiming for maximum impact in whatever actions we take and also in our communications. I think, therefore, that we should bring rates down now as far as we think we can take them. But the more important decision is articulating what we are going to do going forward, why we are doing it, how long we are planning to do it, and under what conditions we would stop doing it. Some of the confusion that is out there about what the Federal Reserve has been doing reflects the fact that our operations really cover two very different kinds of things. On one side we are expanding liquidity and supporting the recovery of financial markets by the CPFF, the MBS purchases, and the upcoming TALF. In other facilities we are preventing catastrophic market outcomes through asset disposition, such as the Bear Stearns transaction, AIG, and the recent transaction we've had with Citi. In addition, there are a lot of technicalities and legalities to these facilities that make it hard for the general public to understand what we are doing. So more fundamentally we need to communicate what we want to accomplish, and that importantly involves our commitment to price stability, as many have said here in the sense of keeping prices in the medium term rising in line with our 1½ to 2 percent preference, and our commitment to a resumption of sustainable economic activity.

When I turn to look at what kind of facilities we should be thinking about going forward, once interest rates are down to their minimum level, there are really a few things that I would highlight. First, in many ways we could influence expectations about short-term policy rates through our long-term debt purchases, as many have said. In particular, when we try to lean against expectations expressed in the yield curve that rates are going to rise soon, and we're seeing some of that today, we can intervene in markets that directly affect major elements of aggregate demand, and I would see that as a very important role of our agency MBS program and also the CPFF to address where firms are really being starved of working capital. Because of its structure, the TALF provides a very broad umbrella under which we could do intervention, again, where we see credit markets failing and economic activity impeded by the lack of finance of a wide variety. I think that we should look at the CPFF and the TALF more as backstop facilities that provide the credit we need but also build in a kind of exit strategy so that, when spreads come down, there is an opportunity for the market basically to tell us, "You can wind this down now."

We need to communicate the criteria by which we are choosing these markets. We have mentioned these three big market segments. I think simpler is much better than having something that's very complicated or having many, many facilities. As part of this, the crucial thing is to provide to the marketplace some kind of conditional commitment. If we don't feel that we're ready yet for the inflation target, certainly between this meeting and the next we really need to think about what kind of conditional commitment we could make—what conditions in the marketplace would lead us to feel that our work was largely done.

I would also note, though, that the historical notes made the excellent point that the risk is that we withdraw stimulus too quickly—that we believe the patient is healing when, in fact, the patient is merely stabilized. So our commitment must be both ambitious in its level and compelling as it is communicated to the public. I think we need to return to the expository approach that the Fed and then-Governor Bernanke took during 2002 and 2003, by which we carefully laid out the elements, the foundation, and the expected outcomes of our approach in that period. As valuable as it was in 2002-03, it is even more valuable today, when confusion and anxiety are shaping behaviors that will amplify the downward forces in the economy. I also endorse the recommendation that many have made to think about a press conference. The need for reassuring communication to the public is, I think, very great.

I would add two more thoughts. Of course, it is really crucial that we are coordinating our policy with Treasury, and there are many ways in which we do that today—certainly, we need coordination of fiscal and monetary policy. I frankly would like to see more of our asset-disposition activities taken on by the U.S. government so that it would be easier for us to describe the facilities that we have as supporting the market and restoring market functioning. I also believe, as I'm sure that many of you do, that we will probably need some kind of agreement with the Treasury vis-à-vis our exit strategy. I particularly underline the real possibility, which several have mentioned here, that we may want to raise interest rates well before the markets are really fully healed or fully sustainable by themselves. We'll need to be able to negotiate that in the sense of both the path we take and the understanding we have with the fiscal authorities.

Then just to conclude here, I also very much want to endorse the point that President Rosengren made about needing to fix the banking system and doing it sooner rather than later. There really is no ability for the economy to function without a strong banking system. Certainly I believe that you are hearing, as I am, of many instances in which the rationing that is going on through the banking system right now is reaching a destructive potential. In that kind of world, I think we need to turn our attention to that. The Federal Reserve is one of the most important supervisors in our country and in the world, and I think we can do a lot to lead to the very tough actions that need to be taken there. Thank you.

CHAIRMAN BERNANKE. Thank you. Several people have mentioned press conferences. I should say that we're looking very carefully at the idea of doing quarterly press conferences with the release of the projections, along the lines of the Bank of England. If we decide to do that—and input from the Committee is welcome—the first one would be in February. It would coincide in this case with the Humphrey-Hawkins additional presentation. I have a speech at the London School of Economics in mid-January in which I will be able to lay out a lot of these issues. I don't know if that's soon enough, but I don't know whether we think we should do more communication or not. That's something we can talk about tomorrow perhaps, but I did want you to know that we are looking at the quarterly press conference model. President Fisher.

MR. FISHER. Mr. Chairman, my colleague Harvey Rosenblum made an interesting point the other day that we're at risk of being perceived as migrating from the patron saints of Milton Friedman and John Taylor to a new patron saint—Rube Goldberg. [Laughter] By the way, I'm going to give a speech on Rube Goldberg next Thursday—I do think that it is important not to make it needlessly complicated. So I think it's very important that we have this discussion. I welcome the discussion and welcome the papers so that we can not only have a cognitive road map for ourselves but also figure out how we're going to clearly articulate a deliberate change in regimes to the public. I want to underscore what you said at the beginning of this conversation, Mr. Chairman.

We should be guided by what's best for the country—period—and not get into internecine concerns about governance. It's what's best for our economy and what's best for the world economy.

I'd like to talk about three points.. I want to talk about the current predicament in very general terms. I want to touch on governance and then on communications. First, with regard to our current situation, it's pretty clear that purchases and sales of fed funds have been distorted by risk aversion, distrust of counterparties, and fear of pending bank insolvencies. Quantitative easing resulting in massive excess reserves, we've talked about that; complications arising from the transition to paying interest on required and excess reserves—as you pointed out earlier, this is a regime shift that we're still trying to effect and perfect; the need for GSEs to invest overnight money at any positive rate; bank capital shortages that prevent the GSE funds from being arbitraged; and quite possibly the FDIC's temporary liquidity guarantee, although that seems to be a minor factor—in these circumstances, focusing on the fed funds target seems to me to be a diversion of our focus and energy, and I sent around a memo to that effect. Moreover, the short-term riskless rate, the T-bill rate, is virtually zero. Reductions in the targeted fed funds rate cannot lower the riskless rate any further.

Adding to our difficulties is the fact that we simply do not know how financial intermediaries or money and capital markets will behave and function when interest rates get this low. We do have the Japanese example. We are not Japan. I have worked and lived in Japan, and we have learned from what they've done. But the fact is that we have no sustained experience in the modern era in the United States with T-bill rates and the effective fed funds rate trading near zero. We do know that money market funds will become unprofitable if rates get much lower. Let me just say to those who sort of dismiss that, I think we might look a little foolish if we drove some of them out of business, especially after creating two special facilities to support their continued intermediation functions on the basis that they were critically needed for their roles in the commercial paper market.

Furthermore, I've spoken with several community bankers, and I subjected Governor Duke to some of that during her visit to Dallas. Their unanimous response to a further reduction in the targeted fed funds rate would be to set a floor for their prime rate at its current 4 percent level or some of them are suggesting that they would switch to a lending rate based off LIBOR—again, with a floor to protect their margins, which are being severely tested. To the extent that larger banks depend on deposits as a source of funding, reductions in the fed funds target rate from current levels could damage their profitability also, and this goes to one of the points made by President Rosengren and First Vice President Cumming. We do have to bear in mind that it's important to have a vibrant and healthy banking system across the country.

In this new and untested interest rate environment, it is, in my opinion, tenuous to assume that the fed funds target rate is the marginal cost of funds to a bank and that all of the usual and customary costs in pricing relationships will hold. If deposit rates approach zero, as they are likely to do for all but the zombie banks, it's probable that the demand for currency will increase, a prospect that I would prefer to avoid. To sum up, we're in an interest rate environment in which the linear properties of our model are likely breaking down. So where does this leave us?

It leaves us with the critical need to refocus our strategy and communication efforts on what we have been doing and will continue to do—namely, restore the public's confidence and trust in financial intermediaries and financial markets, reduce term liquidity and credit spreads to something approaching more-normal levels, improve the flow of credit through financial intermediaries and financial markets, and restore economic growth and reverse the spillover of inflationary pressures from asset markets to the markets for goods and services. Operationally it seems to me that we need to shift our focus away from the fed funds rate target—parenthetically, which we cannot control—to something that we might better influence—namely, the reduction, or perhaps a better phrase, the normalization of liquidity and credit spreads. The fact is that we have already entered this domain, and by stating it that way—that is, approaching the normalization of liquidity and credit spreads—we would have a clear exit strategy, and we could discontinue this focus when spreads return to something approaching normal.

This has the additional advantage that it is a conditional commitment. I would avoid any reference to specific targeting for the monetary base or the size of our balance sheet. We simply do not know in current circumstances how fast or how far, as I referenced earlier in my question to President Lacker, we need to expand our balance sheet to restore normal spreads or normal credit flows. Some of our facilities—for example, the MMIFF—have worked with almost no usage. Others have acquired extensive usage. In sum, it seems clear to me that focus on the target fed funds rate is misplaced in the current environment. If we are to restore the functioning of the credit markets, we need to address that objective explicitly.

With regard to governance, in addition to reading the 21 papers that were sent out and the Bluebook, this last week I read a novel called *World without End* written by Ken Follett. It should have been called *A Book without End* because it goes on for 1,000 pages. [Laughter] It's about the plague in the fourteenth century. One of the interesting lessons from reading that book is that the monks in that period, who dominated society, reverted to the old orthodoxy learned from the Greeks. They were the best educated. They were the Oxford-educated intelligentsia. But by reverting to the old orthodoxy, they did not learn what the nuns learned, which is what you learn from practice. The reason I mention this, Mr. Chairman, is that I think there is great value, as we try to figure out and articulate the new regime, to have these shared discussions at the table. I want to thank you in that sense for your comments, not only about good faith but also about the need to have this discussed broadly within the FOMC and not just adhere to the old orthodoxy. All of us have different levels of experience and backgrounds, and we learn from those different levels of experience and backgrounds.

Finally, on the issue of communications, one of my colleagues often says that, if you're Elton John, you are expected to sing "Bennie and the Jets" every single time and at every single concert. It seems to me that, once we get and hone our message, we must repeat it incessantly and stay on message in order to have it penetrate. In Austin, you gave what I consider to be a hallmark and—not trying to flatter you—for monetary policy a historic speech. What was Bloomberg's first reaction? The Fed may cut rates further. The message was lost. We all need to stay on message. But I think it's very important, whether we have press conferences or whether you give speeches, that we need to hammer the theme of the new regime that we are about to embrace over and over and over again. So I didn't pick "Bennie and the Jets" just because of your name, Mr. Chairman. [Laughter] But I do hope you remember that we must have that constant refrain. If we're going to sell something, we have to sell it by repeating it, not asking the press to interpret it for us but to get the message out in—excuse me, Governor Kohn—full frontal view. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. I'm in awe of a presentation that has Rube Goldberg, the Black Death, "Bennie and the Jets," and full frontal view all in it. [Laughter] Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. I'm a visual thinker. [Laughter] So I'll begin where Governor Fisher ended his remarks. To thank Brian, David, and Nathan for two reasons: First, obviously I thought you did a great job, and second, I didn't want to be the first jerk around this table not to acknowledge you. So I felt some burden now to be 15 for 15 and thank you for the work.

Let me make three background points and then try to answer some of the questions that Brian asked of us. First, I think we have two risks in the zero lower bound discussion. One is overstating the importance of our judgments today in helping the economy get back to potential. The second risk is understating the importance of prospective Fed actions given our frustration that our policy accommodation to this point has only partially offset the deterioration and credit weakness in the real economy. The first trick is getting that balance right, recognizing that our actions are important but probably not determinative, at least solely determinative of the outcomes, given what markets will end up doing with the messages we send and given the need for fiscal and other policies. The second trick is that, notwithstanding our announcements or what we take to be our target, the effective rate is likely to be very close to zero for quite some time. So maybe more precisely in this context, the zero lower bound problem could be understood to mean that the expected protracted period of weakness will come because monetary policy is unable to provide enough stimulus to generate a robust recovery. That is true as far as it goes, but we shouldn't assign more import to this problem than it deserves. That is, the protracted period of weakness is not simply or largely about monetary stimulus. It's about a broken financial architecture of which the official sector response, including monetary policy, is only one piece. At the same time, monetary policy can't be as efficacious as desired and is constrained by these zero lower bound problems. Thus, we don't have a free pass to stand idle. Incremental interest rate policy may be of limited value, but it's still relevant in stimulating demand.

Second point—the judgments today are made harder by the degree of market discontinuity and market dysfunction. I take very seriously the risk that reducing the fed funds rate to zero could further degrade the functioning of financial markets and do so at a very inauspicious moment. Getting that market functioning is our way out of this mess, and though we would in normal markets expect money market mutual funds and regulated and unregulated financial institutions to adjust, there's a lot about their behavior in the past six months that hasn't followed normal custom. I worry at this time, when we're trying to get markets to respond, about putting an incremental burden on their reaction function. The current period is distinguished from 2003 and other antecedents by the broader systemic fears about our system of credit intermediation, and I agree strongly with the idea advanced in the materials that were presented last week that the level of the Treasury repo rate is more critical to Treasury market functioning and the functioning of other markets than the target rate or the effective fed funds rate. The deterioration in repo market liquidity that Bill and others spoke about correlates strongly with lots of other bad things—fails in Treasury markets, the inability to predict market clearing prices, and the inability to hedge other assets. During this period, in which we have seen this unfortunate behavior, everything else seems to have gone wrong as well, so it is hard to draw any causation here. But I do worry about those market effects.

As a third point, on balance I'm inclined to believe that the macroeconomic benefits of pushing the envelope to get to zero may be outweighed, particularly now, by additional financial market problems. In more normal circumstances, disruptions in these markets could be addressed quickly by changes in market practices. But there is reason to worry this time how quickly they could come.

Let me turn now to some of the questions that Brian raised. First, on the question of whether we should move or keep our powder dry, I think it's clear that, once we decide and we know where we want to go, we should move as swiftly as possible to get there. But I think the key word there is "readiness." So when we want to make this final move, we need to be ready in three respects. First, the Board and the FOMC have to be ready in terms of what our consensus is.

Second, the markets must really understand why we are making this change in regime—they need to comprehend fully what is driving our policies. Third, we have to have an operational ability to perform and execute, and that's really a question for Bill and his colleagues as we continue to expand our facilities.

The second question was about the cost of reducing the fed funds rate target to zero. I would put it simply that the zero lower bound in my opinion isn't zero, but it is lower than 1 percent. I'm not sure if it's 25 or 50, but I would be probably cautious about pushing beyond the point of our comfort.

Third, in terms of the benefits of communications, we are judged by our actions far more than our words, and I think the markets have gathered a view of what our reaction function is. So when we talk about the need for our communication language to emphasize the conditionality of it, I think that's quite consistent with how we've talked previously about our forecast. Our judgments on policy are dictated by our forecasts. As our forecasts change, so too might our decisions. So I think I'd put our communications in that regard.

In terms of introducing or reintroducing an inflation target at this point, I'm not sure that it would, at least in the short and medium term, drive the kind of market reaction that we would expect. I think markets would be wondering, after long discussions over the previous eighteen months about subcommittees and communication policies and inflation targets: Why now? Is it that we're actually now more concerned about inflation expectations and the medium-term view of what's consistent with price stability than we were during much of that period in which we were talking about inflation that was higher than our expected range? I'm not sure I have been able to internalize and conclude why that would be appropriate at this very moment to introduce into our statements.

In terms of nonstandard policy tools and the purchase of large amounts of agencies and Treasuries, I think that the Chairman's point about the composition of the asset side of our balance sheet is key. In a different regime, I would have been uncomfortable about agencies. But my view is that they are wards of the state at this time. The U.S. government has said so. To the extent that we can provide our fire power to both the Treasury market and the agency market, it is probably worthwhile to do both. We probably have an opportunity to test the importance of some of these nonstandard policy tools in executing the timing and process and making public our announcement to this point of providing up to $600 billion in aid to this market. I would prefer to avoid setting a ceiling on conventional rates—that's not the role of the Fed. Better to leave that announcement to others. I think it is also critically important with respect to agencies that we make sure we understand the posture and policies of the new Administration. If they think that the agencies are effectively going to be treated like wards of the state, I'd feel more comfortable.

In terms of the expansion of credit backstop facilities, my first concern would be that I'd defer to Bill and his colleagues about operational bandwidth. Second, I think we probably have an opportunity—and you do, Mr. Chairman, in your speech early next year—in announcing what our criteria are and what our framework is for expanding our credit backstop facilities. Third, I'd say that we do need to address, probably in that same period, our exit strategy and clean up any edge problems that might have developed during this period. The CMBS market is in lousy shape. I think that's not largely because of what we've done, but there is a gravitational pull on the bit of liquidity that is out there to the residential market and away from the CMBS market. There's probably an opportunity for us to try to clarify that in the context of the TALF program.

Finally, in terms of other nonstandard tools that would be particularly useful, again, I think it would be important to state publicly in all of our discussions the need for the fiscal authorities to be taking first losses and ensuring that the new Administration, the new Treasury, is prepared to support the Fed in that so that they're in the credit-loss business and we are really just using our facilities and knowledge to put that into place. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. I thank you very much. I will make it 16 out of 16 on the excellent work of the staff, but I think also something that comes through from that is that we have to have a great deal of humility given the situation that we're in. We can use analogies from Japan. We can use analogies from other parts of history or from Sweden, but there are a lot of parts that are unique, and a lot of what we're doing is, as I think President Bullard said, outside where some of the data have been in the past. So we do have to come at this with a little humility. Actually, the Japanese experience weighs very heavily on me because that's perhaps one that I know well and in which I see perhaps the closest analogies. One of the facts that President Bullard mentioned is extremely important and weighs heavily on me—they have had their target rate at less than 1 percent for almost a decade and a half. But something that President Bullard didn't focus on is how little growth they have had in that period. We are moving into an era of very low interest rates, and we want to revive growth and think about how we can do that, and that gets to the overall objective. I think we also want to avoid the problems that Japan has had because it would probably not be a good idea to be in a regime in which we feel forced to have the fed funds rate at less than 1 percent for a decade and a half.

Clearly, there are theoretical, empirical, and practical reasons for moving rapidly. The Japanese example is very clear on that. Practically, we are largely already there. Also, I simply can't imagine that over the next 6 or even 12 weeks we're going to get data that would make us think that we shouldn't be moving interest rates down or that we aren't in a state of the economy in which we have to do something fairly aggressively. We already see some disruptions in the markets because of the low effective rates. We have to be mindful of these consequences and monitor them closely.

As has been mentioned a couple of times, we have the comparison of the markets in which we've intervened that seem to be working a bit better and the markets in which we didn't intervene that aren't working as well. Although I actually do agree with that interpretation, we have to be a bit careful about that in going forward because there could be some unintended consequences, such as in commercial paper. A1/P1 interventions can help that market out, but they could have some unintended consequences for A2/P2. Just because the other markets are not improving as these are, we have to be careful about drawing conclusions that it must mean that we need to intervene in market Y and market Z and A, B, C down the line. That's not to say that I think that what we've done so far has not been helpful. I do believe that it has been, but I think we just have to be very, very careful about those unintended consequences.

Communication strategy, as so many people have said, is crucial because we're stepping into a new world. We basically have a lot of explaining to do, and one of the key things to explain is that we have not gotten to the end of our tether, that there's still a lot more that we can do, even though a lot of the world thinks that, once we have "given up" on interest rates or gotten down to our lower bound, we can't be that effective. We have to be very effective in arguing that, no, that's not the case. In the discussion, a number of people mentioned that trying to provide a framework for understanding this is really, really crucial. Explaining that we may need to keep interest rates at a low level for a while based on the conditions in the economy is important, but that doesn't mean that low interest rates are not helping economic recovery. We should be expressing concerns that inflation could fall below the level that we consider consistent with our dual mandate. I think that's something that is also very important to talk about—methods that we could use to attack that.

I think this does in the broad sense raise the value of an inflation target. But I would be very concerned, as I think President Stern and some others mentioned, at this point about getting into that debate because, even if we did go to the Congress and a few members of the Congress said that's okay, that still would be a very big debate and I think a distraction from exactly where we want to go. But we need to think about that over the long run, particularly if we start to see the inflation rate going down or if we see that we're not being effective at fighting expectations of deflation. But I think for the moment that it would be too much of a burden on our communications and would perhaps cause too much confusion in the market. They have gotten all of these new facilities. We're stepping into a new world potentially depending on our decision tomorrow. If we also then introduce an inflation target at this time, it may just be a lot to digest. But I think it is a discussion that we need to continue to have.

In terms of the specifics of the actions that we need to take moving forward, once again, I think the lessons of Japan are important. We want to focus a little more on the asset side than on the liability side. The Chairman characterized things in a very effective way to argue that we're not doing precisely the same thing and that we potentially can be more effective. I think it's not just about some particular reserves level. The example that President Rosengren gave is one that weighs on me. We need to be nimble in responding to different problems. We may have new facilities. We may purchase more or fewer securities. Being constrained by or picking out a particular number for reserves doesn't seem to be the most effective way to build our credibility that we will fight these problems. Although there is a long history in the Fed of looking at things like the monetary base, nonborrowed reserves, and such, I think there are good reasons that we moved away from them. Of course, I'm from the University of Chicago, and so Milton Friedman is spinning right now, [laughter] but money demand has not proved to be a very stable function over time, particularly now. The money multiplier has certainly been anything but stable, making it more difficult for us to focus credibly on a particular reserves level to see what the ramifications are for the rest of the economy. That is not to say that we shouldn't have an eye on those issues. But given the uncertainties, I would be reluctant to focus on that. I think a focus on the asset side is much more effective.

Ultimately in all the programs and actions that we undertake, we have to think about the exit strategy, as a number of people have mentioned. I think that's very important for us both with longer-run expectations and in just making sure that, as we do intervene, we minimize the amount of distortion. In some sense we are purposefully distorting what the market is doing now, but in some sense we think of the market as being distorted from where it normally would operate. So we have to be at peace with that. We need to do that. But we also want to make sure that as much as possible we try to restore that functioning. Making clear that we do these things with reluctance and do want to get out of them to restore the normal market functioning will again be a very important part of our communication strategy to make this all work. Thanks.

CHAIRMAN BERNANKE. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I'd like to make it unanimous in thanking the staff. For me, particularly, you have extended the process by which every hour that I've been here has been deeply educational and have helped put the things I've been doing since I got here in some sort of a context. Along those lines, the one thing I thought I might address is the economics of the world from whence I came—and that is the economics that bank managers are facing today—because I think that's an important part of this discussion. I'm sure most of you have heard from bankers really pleading not to lower the rates, and there's a very good reason for that. I actually expanded the number of banks that I normally talk to—in addition to Federal Advisory Committee, the North Carolina bankers and some of the Texas bankers—and the plea was unanimous: Please don't lower the rates. The reason for that really goes to the prime rate, not the fed funds rate. If the prime rate moves down, I do believe that dollar for dollar it's going to reduce bank profitability. If we were to go to zero, if prime were to go to 3 percent, I think it would take our entire banking system on an operating basis to an unprofitable level.

To give you an idea, the non-interest operating costs of banks have not changed an awful lot over the last seven or eight years. They fluctuate about 5 basis points, but it's a little over 3 percent of assets in non-interest operating costs. The non-interest income that offsets that may be 60 basis points. So you are looking at a 240 basis point hurdle that margins have to get over. The interest yields right now are 40 basis points lower than they were in 2002, going into the 1 percent fed funds rate. Credit costs are certainly higher. They're higher by 10 to 18 basis points. Fee income is lower by 10 to 16 basis points. If you put all of that together, profitability is already lower by 60 to 75 basis points. On a marginal basis, deposit competition is fierce. CD rates are in the 3½ to 4½ percent range. Money market accounts are around 3 percent. New entrants into the insured deposit arena are intensifying this competition still further, and the banks are incredibly bitter about nonbanks coming into that arena. Lower-cost funding is available from some nondeposit sources, but the banks are feeling pressure from their examiners to limit usage of noncore funds, including discount window borrowings. A bank issued the FDIC-guaranteed debt last week, three years at a cost of 2 percent plus the 100 basis points that they pay the FDIC. So that cost is 3 percent. All of these costs are in excess of the prime rate.

On the asset side, the banks are shying away from purchases of securities because of mark-to-market concerns. The new loans that are being booked are being tied to prime, but they're tied to prime with floors, with those floors generally in the 5 to 5½ percent range. Some existing loans have floors, although many do not. Home equity loans, credit card loans, and smaller bank commercial loans are typically tied to prime. Prime might reference that bank's own prime—and some banks did not lower their prime or were slower to lower their prime the last time we changed the fed funds target—but more commonly it will reference New York or Wall Street prime. Larger loans and mortgages are more likely to be tied to LIBOR, although I understand that competition in recent years has moved toward contracts that give the borrower the option at any time of using a prime-based rate or a LIBOR-based rate.

With pressure on both sides of the interest margin, credit costs are sure to rise, and with the prospects for fee income down, the banks are uniformly begging for no change. When asked how they might manage with lower rates, most said that the only choice they would have at this point would be to shrink their balance sheets rather than compete for business at a negative spread.

The other rates that affect bank profitability have not moved with the fed funds rate, and so in this case it is about spreads, not rates. Now, it's certainly possible that individual banks are exaggerating the effects that lower rates will have on their institutions and that their reactions will not be as strong as they claim. However, my question is, What if they are right? If we get down to a 25 basis point regime and we find out that it simply puts our banking system out of business, how do we then reverse that and move back up, and how do we explain that change?

I'm not as familiar with the economics of money market funds, but I have to assume that their pressures are similar, and the note indicates that they might be willing to operate at a loss for a time. But the more we communicate that this would be an extended amount of time, how long would they be willing to operate at a loss? No matter where we set our fed funds target, there's really very little that we can do differently, as in starting tomorrow. The current actual rate reflects a broken market. There are much lower volumes in the fed funds market right now, and a much higher percentage of those are with institutions that can't earn interest on reserves.

So, Bill, I still see some hope for the fed funds market coming back. Over time, as banks get more comfortable with each other, the opportunities to get a little higher yield as well as to open up an unsecured borrowing source will lead banks back into the fed funds market. But if that market did start to revive a bit, I would hate for us to be in a regime in which, at that point, we had to pressure it again to bring the rates back down. For this reason I think suspending the fed funds target as a policy tool rather than lowering it might be the safer course because it would let prime find its own level and the banks might not necessarily feel pushed to lower prime if we did not change our target.

I had a number of notes on communication, most of which have been said. But the one point I'd like to make is that, when I think of communication, I think of it on a retail level. I think about our communication to consumers and to business owners rather than to the more sophisticated audiences that the notes tend to refer to. I think we have to be sure that we do communicate on a retail level—that we communicate on the nightly news, local newspaper level. Many of you have backgrounds in education, and I think at this point it's our job to teach and explain what we're doing and how it might affect individual consumers and individual businesses. In that sense, it's important that we stay on message and that we have very clear terminology that we use over and over again. Even in the conversation today, the term "quantitative easing" was used differently by different speakers.

I do think we have to be careful, again, on the fed funds rate target. I noticed the same thing that President Fisher did as far as the Chairman's December 1 speech. Any time we talk about the fed funds rate, it is the only thing that's going to be reported. Finally, I also think we have to be careful about references to the experience in Japan. We should emphasize the differences and the reasons that we expect to be successful because, in many places, references to the experience in Japan lead people to believe that we're in for a very, very dismal future, and I don't think that's what we want to communicate. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Thank you all. I actually would like to try to distill some impressions from our discussion and, going even a step further, maybe draw some very tentative conclusions for the statement and decision tomorrow. I do that in the spirit of fairness because tomorrow you have a chance to rebut what I say now. So let me just draw some tentative conclusions, and if you disagree or if there are multiple options, perhaps you can respond in our go-rounds tomorrow.

First, with respect to the level of the fed funds rate, I think generally speaking people want to be aggressive. They recognize the difficulty, the severity, of the situation. Some were somewhat fatalistic, saying, well, we can't really keep the rate much above zero anyway, so it's somewhat of a moot question. With that said, Governor Duke was just the last of a number of people who did point out that there are various institutional, market, and other considerations that would suggest trying to keep the rate above zero if possible, although she had a very interesting alternative, which is just not to have a target, which might be helpful in at least a few contexts. Let me ask Bill about feasibility here. Suppose for the sake of argument that we had a range of 25 to 50 and we set the interest rate on reserves at 50. Would that be feasible? Could that work?

MR. DUDLEY. It might work eventually, but right now I would guess the spread between the effective funds rate and the target would be bigger than that. We're sort of running that experiment right now. The market consensus is that the Fed is going to reduce the target 50 basis points at this meeting. That's incorporated in the current federal funds rate trading because it's the lowest interest on excess reserves during the two-week maintenance period. We're trading in a range of about 10 to 15 basis points. We don't have that much information, but right now that spread is probably 35 to 40 basis points. So I think we probably couldn't do what you said. If we worked on it—you know, took the GSEs and made it so that they couldn't sell fed funds and did a few other things—maybe we could get that spread down to 25 basis points over time. Brian, do you have anything?

MR. MADIGAN. I agree.

CHAIRMAN BERNANKE. All right. Well, that's relevant information. So it may be that our options are a range of 0 to 25 or no target, but those are two options that I would point to. I should also say, as I discuss the statement here, I think that in a very real sense this is a transitional meeting. I mean, we can't go from 0 to 60 in one meeting, and I think we have to allow for the possibility that there will be further refinement as we go forward into January. So I raise, as the first point, exactly how we state the policy decision. Do we make reference to the funds rate? Are we okay with a 0 to 25 range? I hear and recognize the concerns about too low a rate, and it's just a question of feasibility in the short term. One advantage about having a range is that we could indicate that over time we're trying to get to 25. That would be at least slightly helpful, I think.

The second issue I want to mention is communication. I thought there was actually a good bit of consensus. A number of people spoke somewhat approvingly of an inflation target or some broader inflation objective, but I didn't hear much sentiment for doing it immediately or in the very near term. I think it is something that we ought to take very seriously, particularly if inflation starts to drop further. We should do it in a prepared way, and I need to consult and so on. But I agree with the comment that this is a long-term objective that we have. This may be an excellent opportunity to do it because not only is there no tradeoff between growth and inflation in this context but also there won't be any suspicion that we're choosing a rate that's convenient. I mean, we are probably below the rate that we would choose as a target. So it might be worth considering in the longer term.

For tomorrow, though, I did hear quite a bit of interest in conditionality in terms of the ZIRP (zero interest rate policy) type of strategy. We had—I think it was in alternative A, paragraph 3—a statement that said, "The Committee anticipates that weak economic conditions are likely to warrant a federal funds rate near zero for some time." I wonder if that meets what people were talking about, or were there people who wanted to express it more explicitly in terms of our qualitative objectives or otherwise? I hear a willingness to have at least a qualitative conditionality for our policy. I would invite overnight or tomorrow any alternative phrasing that people think might be more effective. It is an important decision to make.

The third issue—and I'm just making very high level comments here; I have a whole bunch of notes that I'm not going to repeat at this point—has to do with our various programs and purchases. I think that the great majority of the Committee is comfortable with MBS and Treasury purchases. At least that's what I heard. I took a majority to be in favor of, or at least accepting, the credit facilities that we have. There were requests for more metrics, more explanation, more criteria, more exit strategies, and so on, and I think those were all valid points. What I take from this is that these asset-side programs, the credit facilities as well as the MBS and other programs, are part of our new regime, that most people view them as part of our new regime, and that the inclusion in our statement of some reference to these kinds of programs, as in the variants that were circulated in the Bluebook, would probably be desirable.

A point of considerable discussion and some contention, with respect to both governance and communication, was the use of a measure of the base or excess reserves as a quantitative indicator of monetary policy. With those who advocated it, I think there were really two objectives, if I may. One was to have a measure of monetary policy that would influence expectations and, if effective, would raise inflation expectations and the like. But another function of that, I believe, was the desire to have, from a governance perspective, the FOMC setting some kind of indicator of monetary policy. With respect to the use of, say, the base as a measure of monetary policy, I would say that for tomorrow we're pretty far from being able to feel comfortable doing that. We haven't done the work. We haven't done the analysis of the transmission mechanisms. We haven't looked at what monitoring ranges and how they might work. So it would be a radical step to take in one meeting. I leave that open as we continue to think about what the right indicators of policy are.

I understand the desire for governance. I think what I would propose—and again, by all means, respond tomorrow—would be, at least in our directive, that we have, as somewhat suggested already, the Committee affirm or otherwise indicate its approval of quantitative programs—$500 billion MBS; $100 billion GSE debt; $200 billion for TALF, if you are willing; et cetera—and pursuant to that, that the Board make a regular practice of bringing any new program or any expansion of existing programs to the FOMC for review and discussion. That may not be entirely satisfactory, but it would certainly indicate to the public that the FOMC has reviewed it from a monetary policy perspective, and it would appear in the directive, the minutes, and so on. I put that out as just a possible compromise on that issue.

I think those are the main elements of the statement and the directive. I heard a lot about a desire for an explanatory document, talking points, other supporting material, speeches, and press conferences. We hear that, and it will be very important for us to try to develop such materials. I said at the beginning that I think it's unusually important for us to try to speak in a unified way externally, not because I want to avoid dissent—and of course, everyone's views can be expressed—but as Governor Duke pointed out, because I think we have an educational mission here that needs to be taken seriously. So the more consistent we can be in our explanations and our discussion, the better it will be.

Those are just some things that I drew from the discussion. Again, you'll have an opportunity tomorrow, at least one go-round or maybe two go-rounds, to agree or disagree. Any comments? Final thoughts?

All right. The first question is, What time do we begin tomorrow? We are scheduled for 9:00 a.m. I think that would be adequate. Does everyone feel comfortable keeping their economic go-round remarks reasonably short? That's the tradeoff. If everyone is game for that, we'll start tomorrow morning at 9:00 and now adjourn the Board meeting—you didn't notice that—and also just remind you that there's a reception and dinner available for your convenience. There will be no business conducted at that dinner. Thank you. See you in the morning.

[Meeting recessed]