

**December 15, 2008—Morning Session**

CHAIRMAN BERNANKE. Good morning, everybody. Let's start off today with the economic outlook. Dan, will you be taking the lead?

MR. COVITZ.<sup>3</sup> Thank you. I will be using the packet of charts that starts with the staff presentation on financial markets. The charts for the other two presentations are included in this packet and follow mine. As shown in the top left panel of your first exhibit, long-term nominal Treasury yields posted their largest intermeeting decline in over twenty years. The primary explanation for this decline, outlined to the right, is that investors markedly revised down their economic outlook, leading both to a lower expected path of monetary policy and to continued flight to high-quality assets and away from securities with credit and liquidity risk. Yields also fell following Fed communications regarding alternative monetary policy tools, such as the purchase of long-term Treasury securities, agency debt, and mortgage-backed securities.

One measure of flight to quality, shown in the middle left panel, is the covariance of percent changes in stock prices and Treasury yields. When investors pull back from risk-taking, stock prices fall, and so do Treasury yields, resulting in a positive covariance between the two. When flight-to-quality effects are substantial, prices in both markets are volatile, making the covariance particularly large. In recent months, the covariance soared to well beyond its 2002 peak. Since the October FOMC, it has come down somewhat but remains extremely elevated, an indication of continued and substantial flight to quality. Another perspective on investor perceptions is provided by the equity risk premium, shown by the red shaded region in the panel to the right and measured as the difference between a trend year-ahead earnings-to-price ratio on S&P 500 stocks and a real long-run Treasury yield. This measure ballooned in mid-November as stock prices and Treasury yields fell and then narrowed a bit over the past month, as indicated by the plus signs. Even so, the risk premium remains extraordinarily wide.

Yield spreads on 10-year corporate bonds, shown in the bottom left panel, increased further over the intermeeting period. The spread on high-yield bonds (the red line) topped 1,600 basis points, and the spread on BBB-rated bonds (the black line) exceeded 600 basis points. The BBB spread is now comparable to average levels recorded on similarly rated bonds during the Great Depression. Changes in corporate bond spreads can be decomposed into changes in one-year forward spreads. As shown in the panel to the right, the 117 basis point intermeeting increase in the 10-year BBB spread reflects increases in forward spreads across the term structure, consistent with investor flight to quality and away from risk. In addition, the forward spreads ending in two years and five years increased more than the spread ending in 10 years, suggesting that investors have become more concerned about credit risk in

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<sup>3</sup> The materials used by Mr. Covitz, Ms. Aaronson, and Mr. Ahmed are attached to this transcript (appendix 3).

the medium term—that is, more concerned about the possibility of a protracted economic downturn.

Your next exhibit examines recent conditions in the commercial paper market. As shown in the top left panel, outstanding financial CP and ABCP (the black and red lines) dropped in September and October but since then have partially rebounded. In contrast, nonfinancial commercial paper outstanding (the blue line) has been relatively flat, although nonfinancial programs rated A2/P2 (not shown) have contracted roughly 40 percent since early September. The noticeable increases in financial CP and ABCP around the time of the last FOMC meeting reflect the implementation of the Federal Reserve's commercial paper funding facility (CPFF), which ramped up quickly and now holds roughly \$300 billion of highly rated commercial paper. The recent stability is also likely due to flows back into prime money market funds since early November (shown by the red bars above the zero line in the panel to the right). According to recent surveys of money-fund managers, prime funds have substantially increased their holdings of ABCP, reportedly reflecting the confidence provided by the asset-backed commercial paper money market mutual fund liquidity facility (AMLF), which stands ready to provide banking organizations with nonrecourse loans to fund purchases of highly rated ABCP from 2a-7 money funds.

Turning to pricing, the middle left panel shows that the spread on overnight A2/P2-rated nonfinancial CP (the blue line) trended down over the intermeeting period. About half of the reduction in A2/P2 spreads reflects a sample shift toward higher quality overnight issuers, while the other half of the spread reduction is due to improvements in pricing for a constant sample of issuers, suggesting a positive spillover from sectors of the market directly affected by the Fed liquidity programs. The overnight ABCP spread (the red line) also declined, on net, over the intermeeting period. In contrast, overnight yields on CP from highly rated nonfinancial and financial programs (not shown) have traded at levels close to the effective federal funds rate for the past several weeks.

To examine year-end pressures, the panel to the right shows the gap between thirty-day and overnight A2/P2 yields. This gap has been volatile but has trended up since late November, when the 30-day rate from our smoothed yield curve began to reflect trades that crossed year-end. Year-end funding pressures are explored further in the bottom left panel. The red bars show average percentages of paper that were placed over year-end as of mid-December from 2003 to 2007. The corresponding percentages for 2008 are denoted in blue. The first two bars indicate that, with respect to getting past year-end, programs rated above A2/P2 as a group are ahead of their average pace over the previous five years. In contrast, the second two bars show that lower-rated programs are behind. Overall, as outlined in the bullet points to the right, conditions in the commercial paper market appear to have been stabilized by the various policy interventions in this market. Even conditions in the nonfinancial A2/P2 sector, which falls outside the government liquidity and guarantee programs,

have improved, but the sector remains strained. Year-end pressures appear substantial for lower-rated programs.

The remainder of my briefing reviews funding flows in longer-term markets, starting with financing for nonfinancial businesses. As shown by the red portions of the bars in the top left panel of exhibit 3, investment-grade bond issuance has held up fairly well in recent months, while speculative-grade issuance, shown by the blue portions of the bars, has dwindled to nothing. This pace of financing does not appear to pose substantial near-term funding pressures for the nonfinancial corporate sector as a whole. As shown by the blue bars to the right, the volume of speculative-grade bonds due to mature is relatively light in 2009 and 2010 before it moves up somewhat in 2011. Moreover, the pace of investment-grade bonds that will mature in coming years, denoted by the red bars, is comparable to recent issuance levels. In addition, as shown in the middle left panel, liquid asset ratios for firms rated speculative- and investment-grade remain relatively high.

Perhaps more troubling for nonfinancial businesses is that funding from banks has slowed. As shown in the middle right panel, C&I loans expanded rapidly in September and October reportedly reflecting, to a substantial extent, a wave of drawdowns on existing lines of credit. However, the expansion of C&I loans halted in November. Equally striking, the plot in the bottom left panel shows that the change in commercial mortgage debt, based on flow of funds data, turned substantially negative in the third quarter, as the outstanding amounts both at banks and in securitizations fell. Overall, nonfinancial business borrowing, shown on the bottom right, has slowed sharply this year, and with financial conditions expected to remain tight and investment projected to be weak, the staff forecast calls for borrowing to remain very tepid through at least 2010.

Household credit is the subject of my final exhibit. Mortgage debt, shown by the blue line in the top left panel, is estimated to have contracted in the second and third quarters, in combination with the continued decline in house prices, shown by the thin black line. We have very little data for mortgage debt in the fourth quarter, but MBS issuance in October, shown to the right, was somewhat below the already low third-quarter level. Other types of household debt have also begun to contract. As shown in the middle left panel, revolving and nonrevolving consumer credit rose only a bit in the third quarter and then fell in October. While the slowdown in consumer credit likely reflects, in part, a reduction in demand, the secondary market for such credit has also become substantially impaired. As shown to the right, issuance of ABS backed by auto and credit card loans slowed markedly in the third quarter and was near zero in October and November, as quoted spreads on BBB and AAA ABS (not shown) soared. Results from the Michigan survey, shown in the bottom left panel, suggest that the contraction in household debt reflects both the reduced supply of credit and weak demand. As shown by the black line, an unprecedented share of households has pointed in recent months to tighter credit as the reason that it has not been a good time to purchase an automobile. At the same time, the percentage citing concerns about the economy, plotted in red, has increased to the top of its historical

range and remains the reason mentioned most often by respondents as a deterrent to purchasing an automobile. With financial markets under stress, consumer credit likely will need to be funded mainly on bank balance sheets in coming quarters. However, as shown in the panel to the right, banks' unused loan commitments for both households and businesses have declined substantially this year, as net new commitments have not kept up with drawdowns on existing lines—another indication of the tighter supply of bank credit. Stephanie will now continue with our presentation.

MS. AARONSON. I will be referring to the exhibits that follow the green nonfinancial cover page. The indicators that we have received since the last FOMC meeting suggest that real activity has been contracting rapidly, and as Dan has described, financial conditions have continued to deteriorate. Starting with the labor market, private payroll employment (the inset box in the top panel) plunged 540,000 in November, and the figures for September and October were revised down noticeably. All told, November's drop brought the three-month decline in private employment (the black line in the top panel) to an annual rate of 4.2 percent—a much steeper pace of job loss than we were expecting in the previous Greenbook. The retrenchment in November was pervasive across both goods- and service-producing industries. As shown in the middle left panel, initial claims for unemployment insurance have continued their steep climb since the November survey week, consistent with a further large drop in employment in December.

Meanwhile, in the household sector, nominal sales at the retail control grouping of stores (the inset box in the middle right panel) declined 1.5 percent in November, which given a large energy-driven price decline, translates into an increase in real spending for the month. We had been expecting real outlays in this category to fall further. As shown by the rightmost blue bar, with the latest retail sales number, we now think that real PCE on goods other than motor vehicles is on track to fall at an annual rate of 5¼ percent, not as bad as the 9¼ percent decline we projected in the Greenbook but still very weak. Near-term indicators of consumer spending point to further weakness in the coming months. Notably, the Reuters/University of Michigan survey index of consumer sentiment, plotted in the bottom left panel, remained at recessionary low levels in the first part of December. Sales of light vehicles (the bottom right panel), which slumped in October, fell further in November, to an annual rate of 10.1 million units, a much slower pace than we had anticipated. Anecdotal reports suggest that sales are soft again this month. Given the weak fundamentals for demand and tight credit, we project vehicle sales to remain depressed over the next several months.

As shown in the top left panel of exhibit 2, residential construction has continued to slide. Single family starts fell further, to 441,000 units—somewhat lower than our expectations—and permits continued to move down last month. In the business sector, new orders for nondefense capital goods excluding aircraft (the red line in the top right panel) dropped for a third straight month in October; and with orders falling below shipments for a second consecutive month, the backlog of unfilled orders

shrank further. Yesterday, the Board released data on industrial production in November. Total IP (the inset box in the middle panel) fell 0.6 percent in November. Excluding the effects of rebounds from the Boeing strike and September hurricanes, IP moved down 1.6 percent last month. The black line in the panel plots the three-month diffusion index of manufacturing IP, a measure reflecting the net fraction of industries that experienced an increase in production. As you can see, over the past few months that number has plummeted to 21, indicating that the contraction in industrial activity has been remarkably widespread. Overall, the incoming data led us to steepen significantly the contraction in real GDP that we are forecasting for the current quarter and the first quarter of next year. In these two quarters, we expect output to decline at an average annual rate of nearly 5 percent. In both quarters, a significant chunk of the revisions has come in private domestic final purchases (lines 3 and 4 of the table). In addition, the available indicators suggest that firms are acting aggressively to limit unwanted increases in their inventories. As shown in line 5, firms have been drawing down inventories at a moderate pace in the second half, and we expect even faster liquidation next quarter in response to the sizable contraction under way in final sales.

Your next exhibit focuses on the medium-term outlook, starting with some of the key background factors that have influenced our thinking about the outlook since the October Greenbook. On the downside, as noted earlier, financial conditions have deteriorated further in recent weeks. As can be seen in the top left panel, the index of financial stress that we track continued to rise sharply. One important component of that increase in stress has been the further widening of corporate bond spreads for investment-grade issues (shown by the gray shaded area in the top right panel). In addition, equity prices are lower than we projected, taking an even bigger bite out of household resources. Meanwhile, in the external sector, the path of the dollar (shown in the middle right panel) is somewhat stronger than in our October forecast, and the outlook for foreign economic activity has weakened further. Shaghil Ahmed will have more to say about these developments shortly.

As you know from reading Part 1 of the Greenbook, in light of the intensification of recessionary forces that emerged over the intermeeting period, we based this forecast on the assumption of a lower level of the federal funds rate than in our previous projection (not shown). In addition, we now assume that \$500 billion in new fiscal stimulus actions will be enacted early next year, on top of the roughly \$165 billion in the stimulus package enacted earlier this year. These assumed fiscal actions include permanent tax cuts for most individuals, higher transfer payments, grants to state and local governments, and support for housing. As shown in the bottom left panel, these new federal programs boost the impetus to GDP growth from fiscal policy considerably relative to our assumptions in the October Greenbook. Two other factors also provide more support to real activity in this forecast. First, mortgage rates (the bottom right panel) have fallen about  $\frac{1}{2}$  percentage point since the October Greenbook. With the spread over the 10-year Treasury yield still quite wide, we project that mortgage rates will fall further over the projection period. Second, oil prices (not shown) have fallen more in recent weeks than we anticipated in the

October Greenbook; the lagged effects of these declines provide a greater lift to spending in 2009.

The top left panel of your next exhibit summarizes our medium-term projection. On balance, we expect that the factors restraining activity will far outweigh the supportive influences, with real GDP falling at an annual rate of 3 percent in the first half of next year. The decline is led by a steep drop in business fixed investment (lines 5 and 6). In the second half of the year, real activity begins a slow recovery as PCE (line 3) picks up and residential investment (line 4) begins to stabilize. In 2010, the recovery is projected to gain momentum as household spending strengthens further and business purchases of equipment and software begin to rise. As is typical, the recovery in nonresidential investment is expected to lag.

By postwar standards, we are projecting a deep, prolonged recession and a very sluggish recovery. The middle left panel provides some perspective. The black line shows the level of real GDP, indexed to its own peak, in the second quarter of 2008. By way of comparison, the red and blue lines show the paths of real GDP during the recessions that started in November 1973 and July 1981, respectively. As can be seen, the projected contraction in real GDP in the current episode is about in line with that experienced during those two earlier “big” recessions, but our projected recovery is noticeably more prolonged. The box to the right summarizes some of the important factors that impede the projected recovery. First, we think that the economy will continue to face significant (albeit moderating) financial headwinds over the next two years, with elevated risk premiums, restrictive lending conditions, and general uncertainty restraining real activity for some time to come. Second, tight monetary policy did not help generate the current recession, and we don’t see monetary ease as likely to generate as much impetus to recovery. In fact, as the third bullet point notes, the federal funds rate is already close to the zero lower bound, greatly limiting the scope for conventional monetary policy to provide further stimulus to real activity.

The importance of this last factor is illustrated by the bottom set of panels. The exercise is similar to the simulations presented in the Bluebook, except that this one allows the federal funds rate to turn negative. The green line in the bottom left panel shows the simulated federal funds rate path. If unconstrained, the optimal funds rate would fall below zero in early 2009 and drop to negative 5½ percent in the third quarter of 2010. In this scenario, the unemployment rate, shown in the middle panel, peaks at 7¾ percent in 2009—about ½ percentage point lower and a year earlier than in the Greenbook projection. The four-quarter change in core PCE prices, shown at the right, bottoms out at just over 1¼ percent in mid-2010 and then turns up, in contrast with the continued deceleration in the extended staff forecast. In the context of the zero bound, achieving an outcome for real activity and inflation consistent with the unconstrained optimal control exercise would likely require some combination of greater fiscal stimulus and nontraditional monetary actions than we have built into the current projection.

Your final exhibit summarizes the outlook for inflation. As shown in line 1 of the top left panel, we now project that total PCE price inflation will slow to about 1 percent in 2010, while the core rate (line 7) falls to 0.8 percent. The decline in inflation reflects a combination of widening slack in resource utilization, reduced energy and materials prices, and a net decline in core import prices; these factors also push down long-run inflation expectations. I should note that we received data on the November CPI this morning. The total CPI fell 1.7 percent, driven by a sharp drop in energy prices. The core CPI was unchanged last month. We had been expecting an increase of 0.1 percent. One measure of resource utilization, the unemployment rate, is projected to reach 8¼ percent in 2010. In our forecast, the wide unemployment rate gap puts substantial downward pressure on costs and prices. However, as suggested in the middle left panel, we may be overstating the downward pressure on inflation caused by slack. In particular, the current cycle has been associated with especially large employment declines in several industries, notably construction and finance. If these declines are leading to an unusual amount of employment reallocation across industries, structural unemployment would increase, which in turn would raise the NAIRU.

The remaining panels present some analysis of the issue using a measure of sectoral reallocation and a set of Beveridge curves. The middle right panel depicts an index of sectoral employment reallocation across industries. The index is based on the growth rates of employment in 15 industries relative to the growth rate of total employment, adjusted at the industry level for typical cyclical movements in employment shares and is similar in spirit to a measure constructed at the Chicago Fed. As can be seen, even after removing the typical cyclical behavior, increases in sectoral reallocation often occur around recessions, which is not surprising since each business cycle produces a unique set of imbalances. Indeed, the amount of sectoral reallocation indicated by this measure has been rising over the past year or so. However, to date it remains low relative to previous spikes in reallocation. Another way to determine whether there has been a rise in structural unemployment is through the so-called Beveridge curve, two versions of which are shown in the bottom panels. The version at the bottom left plots the unemployment rate, adjusted for the Emergency Unemployment Compensation program, on the horizontal axis against the job openings rate, measured by the Job Openings and Labor Turnover Survey (JOLTS), on the vertical axis. The bottom right panel shows a Beveridge curve calculated using the Help-Wanted Index as the measure of job openings. If there has been a significant increase in structural unemployment, then one would expect that for a given level of the job openings rate, the unemployment rate would be unusually high—that is, to the right of the plotted Beveridge curve. This might occur, for example, if many of the job openings were for nurses but a disproportionate number of the unemployed were bond traders, who are not qualified for the job openings. [Laughter]

So, what do these Beveridge curves say about structural unemployment? The blue and red circles in the two panels show the data points for the third quarter of 2008 and for the most recent months available. The latest readings from the JOLTS

do stand to the right of the estimated curve, while the latest readings from the Help-Wanted Index are closely in line with past experience. At this point we are reluctant to draw strong conclusions from just a couple of observations from either measure, and we read the evidence as consistent with at most a small increase in structural unemployment thus far. Of course, these data do not tell us what will happen in the coming quarters, when we anticipate further job losses in financial services and continued weakness in construction and manufacturing. Shaghil will continue our presentation.

MR. AHMED. I will be referring to the exhibits that follow the blue International Outlook cover page. Financial markets in foreign economies remain stressed but have not suffered further pronounced deterioration since the October FOMC meeting. As shown at the top of your first exhibit, government bond yields in major industrial economies have dropped, likely reflecting further expected monetary policy easing, lower inflation expectations, and a firming of the belief that economic recoveries are not around the corner. Equity markets, shown in the middle left, have changed only moderately, on net, since your last meeting, compared with large declines in previous months. The emerging-market aggregate CDS spread, shown in the middle, has been volatile but remains elevated. As shown to the right, gross private capital inflows to emerging markets through debt and syndicated loans have continued to trend downward.

The exchange value of the dollar against the major foreign currencies (the black line in the bottom left panel) has moved down a little since the last FOMC meeting. Some bilateral exchange rate movements were substantial, however, with the dollar appreciating markedly against the pound and depreciating against the yen. As shown to the right, the dollar has appreciated somewhat against the currencies of our other important trading partners, driven by movements in the Mexican peso and the Brazilian *real*. Earlier this month, the dollar registered one of its biggest daily increases against the Chinese renminbi in recent years, although this shows up only as a tiny blip in the chart. We believe that Chinese authorities will allow the renminbi to depreciate somewhat in the coming months; NDF (nondeliverable forward) contracts also imply an expected depreciation of the renminbi against the dollar over the next year or so.

Incoming evidence on economic activity abroad continues to be grim. As shown in line 1 of the table in exhibit 2, we now estimate that foreign economic growth was below 1 percent in the third quarter. Although growth in Canada (line 7) and Mexico (line 12) surprised on the upside, readings elsewhere were generally weaker than expected, with real GDP contracting in the United Kingdom, the euro area, and Japan (lines 4 through 6). As shown by the red bars in the middle left panel, net exports made significant negative contributions to growth in these three economies. Domestic demand (the blue bars) was also soft. Growth in emerging Asia (line 9) was barely positive in the third quarter, reflecting subdued growth in China (line 10) and substantial contractions in most of the newly industrialized economies (shown in the middle right).

With data from the current quarter pointing to greater weakness than we expected and a substantially more pessimistic U.S. outlook, we have further slashed our forecast for total foreign growth to minus 1½ percent in the current quarter and minus 1¼ percent in the next, before a recovery to a positive but still relatively weak average pace of about 1 percent through the remainder of next year. The widespread nature of the economic slowdown in large part seems to reflect trade linkages. As depicted at the bottom, in recent years U.S. economic growth (the black line) and the growth of total real exports of our major trading partners (the green line) have been significantly related. Although foreign exports are affected by many factors in addition to U.S. GDP, the relationship shown and the gloomy outlook for U.S. economic activity through next year paint a bleak near-term picture for foreign exports.

Your next exhibit focuses on the advanced foreign economies in more detail. Data from Europe point to a sharp slowing in the current quarter. The timeliest indicators are PMIs (purchasing managers' indexes), which, as shown in the top left panel, have plummeted in recent months in both the United Kingdom and the euro area, reaching levels well below those observed during the 2001 downturn. As depicted to the right, in Japan, exports (the black line) and industrial production (the blue line) have contracted during the current quarter, and conditions in the labor market have deteriorated further, as manifested by the decline in the ratio of job openings to applicants (the red line). Indicators from the current quarter in Canada, shown in the middle left, point to weakness in real exports and a continued drop in housing starts. Authorities in advanced foreign economies are attempting to shore up aggregate demand through fiscal stimulus. As listed in the middle right panel, many countries have announced stimulus packages, including Germany, France, and the United Kingdom. We estimate that the actual stimulative content of the packages announced so far is likely to be small but expect that additional measures will be introduced next year. The total fiscal stimulus that we are assuming should boost growth in the advanced foreign economies by ¼ to ½ percentage point at an annual rate from mid-2009 through 2010. The possibility of bigger fiscal initiatives is an upside risk to our outlook for foreign growth.

Many of the foreign central banks have become more aggressive in easing monetary policy, as can be seen at the bottom left. Since the last FOMC meeting, the Bank of England and the ECB have slashed policy rates by a total of 250 basis points and 125 basis points, respectively, and the Bank of Canada and the Bank of Japan have lowered rates by smaller amounts. More rate cuts are expected in all of these economies, which could bring rates in Japan back down to the zero lower bound. As shown on the bottom right, inflation in the advanced foreign economies is now expected to recede at a faster rate than previously projected, reflecting sharp declines in commodity prices as well as diminished resource utilization.

Turning to emerging-market economies, as shown in the top left panel of exhibit 4, the recent behavior of Chinese industrial production, total exports, and

imports from Asia is now reminiscent of developments during the year 2001. The plunge in imports from Asia casts doubt on the notion that China has become an independent engine of growth in the region. As depicted to the right, Korean exports and aggregate industrial production in Korea, Singapore, and Taiwan are plummeting. In Mexico, third-quarter output was bolstered by expansion in the agricultural sector, but as shown in the middle left, exports have moved down sharply, and consumer confidence has dropped below 2001-02 levels. In Brazil, too, shown on the right, there has been some softening in exports (the black line), which had been supported by high commodity prices, although industrial production (the blue line) has held up a bit better.

With prospects for exports in the doldrums, policy stimulus has become all the more important to the outlook for emerging-market economies. As noted in the bottom left, monetary easing has continued, with interest rate cuts in many emerging Asian economies, including China and Korea. China, Malaysia, and Brazil have also lowered bank reserve requirements. In addition, fiscal stimulus packages have been announced in a number of economies, most notably China. China's 16 percent of GDP spending package considerably overstates the ultimate effects on growth as it includes some previously announced projects, its implementation may take longer than announced, and the federal government is slated to pay for only 30 percent. Discounting the headline number, we estimate that the Chinese package could boost growth 1 to 1½ percentage points per year. Other countries, such as Korea and Mexico, have introduced smaller but still sizable packages, which we expect will give some impetus to growth.

In sum, our near-term forecast calls for total foreign growth to be the weakest since 1982, and as sketched out in our alternative simulation in the Greenbook, there would appear to be downside risks even to this forecast.

Your final exhibit focuses on the U.S. trade outlook. Weak global demand has contributed to falling prices for food and metals, which have led a sharp decline in nonfuel commodity prices (the blue line in the top left panel). Oil prices (the black line) also have continued to move down rapidly, but futures prices project some recovery ahead. The fall in commodity prices has exerted downward pressure on U.S. trade prices (shown in the top middle panel); both core import prices and core export prices dropped markedly in October and November, which for import prices were the largest monthly declines in the fourteen-year history of the index. A sense of the extent of weakness in global demand can also be seen in shipping rates (shown to the right), which have taken a nosedive.

As in the 2001 recession, U.S. real exports and imports of goods (shown in the middle left) are now trending down. Imports (the red line) have been moving down all year. The falloff in exports (the black line) is a more recent development and, in part, reflects hurricane-related disruptions and the strike at Boeing. As shown in the table, growth of both real exports of goods and services (line 1) and real imports (line 3) was noticeably weaker in the third quarter than we had previously estimated.

For the current quarter, we see both real exports and real imports contracting sharply, reflecting the slowdown in global demand. Looking ahead, our projections for a stronger broad real dollar (shown in the middle right) along with our weaker outlook for foreign growth have led us to revise down sharply our forecasts for exports, especially in 2009. In the near term, our projections for imports have also been marked down considerably. As shown in line 5, the contribution of net exports to U.S. growth is expected to swing slightly negative in the current quarter, following large positive contributions earlier this year. The current quarter's contribution is considerably weaker than projected in both the October and the December Greenbooks, as last week's export data surprised us on the downside. Next quarter, with a substantially greater step-down in imports than in exports, we expect the contribution of net exports to U.S. growth to jump back up, before returning to negative territory for the remainder of the forecast period. That concludes our presentation.

CHAIRMAN BERNANKE. Thank you. Remind me what your anticipation of the current account deficit is for next year.

MR. AHMED. I think the deficit goes down to about 3 percent.

MR. SHEETS. Yes. We see the current account deficit, as Shaghil said, bouncing between 3 and 3½ percent of GDP through 2009 and 2010. In the near term, you have much weaker foreign growth and a stronger dollar, but that is offset by the lower level of oil prices, so that keeps the current account deficit around the 3 to 3½ percent range.

CHAIRMAN BERNANKE. Okay. Thank you. Questions for our colleagues? President Bullard.

MR. BULLARD. I was just looking at the policy rates abroad here—this is the picture in exhibit 3, I guess. It shows the ECB, the Bank of Canada, and the Bank of England all leveling out before they get to zero. Do you have a sense of what the plans are there, or what they are saying about that, or are we going to see a sort of global move to zero? What is your sense of that?

MR. AHMED. Looking at the policy that is going forward, first of all, we are forecasting here what we think they will do, not necessarily what we think they should do. Given their past

behavior, we think that they will be ratcheting up the rates the first chance they get. The timing is a bit different, but the rates are broadly in line with market participants' expectations. In the case of the euro area, for example, at the end we are even a little lower than the market participants are expecting.

MR. BULLARD. So this is from surveys of market participants?

MR. AHMED. No. This is our projection.

MR. BULLARD. Right. But you are getting the information from surveys and other things.

MR. AHMED. It is informed by surveys, yes.

MR. SHEETS. I would add that I think the ECB in particular has a real aversion to policy activism. In fact, Trichet was on the wires this morning indicating that they are not really comfortable with where they are right now. They may pause in January, and I think it really would take a more severe outcome for activity in the euro area than what we have incorporated in our forecast to get the ECB down to zero. Nevertheless, that is a risk. I would say that there are downside risks here. I would put a higher probability on seeing the Bank of England or the Bank of Canada go to zero. But as Shaghil emphasized, here we are basically just writing down what we think they are going to do, and we generally follow the futures markets fairly closely. But it certainly would be a surprise to me if, over the next six months, we saw other major central banks in the proximity of zero.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Just a comment on the projections for China—these numbers seem to be less than what they are saying officially. Am I correct?

MR. AHMED. Yes. These numbers are less.

MR. FISHER. That sort of jibes with the reports that I am hearing back from the CEOs doing business in China. In fact, the cutback has been much more dramatic than they expected. Semiconductor firms, for example, have put ship-stop orders, meaning they are stopping for lack of payment, and the retailers are seeing a noticeable drop in attendance at their stores. But I think that our numbers are more fitting.

MR. AHMED. I think the latest official numbers don't incorporate the November data, which just came out—actually, they came out yesterday—and some trade data since the Greenbook.

MR. FISHER. But you are saying that we do expect further currency depreciation.

MR. AHMED. In the near term, yes, through the first half of next year.

MR. FISHER. I have three questions, Mr. Chairman. One on the commercial paper market. What is the spread between A1/P1 and A2/P2 right now?

MR. DUDLEY. For term, it is a huge spread, probably 300 basis points or so, but overnight it is much smaller.

MR. COVITZ. As you go out the term, it is even more.

MR. FISHER. So the incentive for A1/P1 borrowers is to do everything they can to keep that status, obviously. It is a much more attractive proposition.

MR. DUDLEY. Yes.

MR. FISHER. Which leads to more-conservative financial management and business management. You do everything you can not to become an A2/P2 borrower, to slip off the A1/P1 ladder.

MR. DUDLEY. Historically BBB was the sweet spot of the corporate capital structure, and that was associated with A2/P2 commercial paper borrowing, which people thought was safe. It turned out not to be quite as attractive as they had thought.

MR. COVITZ. I think over history this isn't the only time when A2/P2s have come under stress. Whenever there were disruptions in the market—for example, after the California utilities defaulted in the early part of the decade—A2/P2 outstandings plummeted, and A2/P2 spreads rose, though not nearly to this magnitude. This is truly extraordinary. But that is a portion of the market that is under stress because this market in general tends to be very, very skittish. At the first sign of trouble, there is quantity rationing. I didn't show the outstandings of the A2/P2s, but they have gone down—as I think I mentioned—40 percent in the last couple of months. So quantity rationing is already taking place, and they are having trouble getting over year-end.

MR. FISHER. I guess my point is that the way in which it works is that it gives people incentives to be even more conservative in the financial management of their operations. On household credit, do we have a sense of how much shift is taking place between credit card usage and debit card usage? Under these conditions of duress, has that been a noticeable change, or is it just marginal?

MR. COVITZ. I don't know those data.

MR. FISHER. It might be something to look at next time. Finally, on the inflation table in exhibit 5—and you have talked about the numbers that were released this morning—do you see additional monthly deflationary numbers on the headline CPI, or could you see this happening for a prolonged period, say for a quarter? We have a table here for 2008, 2009, and 2010. On the top line, the PCE price index, do we envision monthly or perhaps quarterly extensions of deflationary headline numbers?

MR. STOCKTON. No. We have another two months of small declines anticipated as the energy prices continue to pass through and then, beyond that, some small increases. So we don't see this as an extended period of negative headline.

MR. FISHER. So December/January?

MR. STOCKTON. December/January—exactly.

MR. FISHER. And what is the order of magnitude?

MR. STOCKTON. We are looking for about minus 0.5 percent in December and minus 0.1 in January. We are also not expecting the core figures to remain as low as they have been running for the past month or two. We do think that they have been held down by some very significant declines in air fares. That could continue for another month or two—again, as the energy price pass-through works. They have also been held down by some very large declines in lodging away from home, which is a volatile series, and it is not likely to sustain this level. Despite the fact that we don't see them as low as they have been the past two months—that is, declining to flat—we are expecting some fairly small increases going forward. We have core inflation heading down, and all of these exhibits have shown a significant reduction in price pressures coming from import prices, from energy prices, and from broader commodity prices as well as the increase in slack that, as Stephanie pointed out, is keeping a real lid on labor costs.

MR. FISHER. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Our staff does such a fine job. Maybe my hearing is going, but I missed the names of our staff presenters. Can we get them introduced to us?

MS. AARONSON. I'm Stephanie Aaronson.

MR. COVITZ. I'm Dan Covitz.

MR. AHMED. Shaghil Ahmed.

MR. LACKER. Great. Thank you very much. I have a question for Stephanie. You know, they do such a great job.

CHAIRMAN BERNANKE. Jeff, are you feeling okay? [Laughter]

MR. STOCKTON. We apologize for our lack of manners. [Laughter]

MR. LACKER. Maybe it is a southern thing, I don't know. [Laughter] The sectoral reallocation is really intriguing, and it is something that I have been curious about in this whole episode. The measure is not one I am familiar with. It is one for which you count each industry as a unit, right?

MS. AARONSON. Exactly. It is a Lilien type of dispersion index. This isn't actually how we calculate it, but it is essentially how the industry's share of employment changes relative to total employment. So it is the growth in that industry's employment relative to total employment. What we do is that we know that over the business cycle each industry has a typical pattern—durables employment goes down a lot during recessions whereas, say, health care doesn't go down that much. Those types of changes aren't typically associated with sectoral reallocation. That is, we don't really think of those things that are typical over the cycle as being associated with an increase in the NAIRU. We want to take those out, so we take out the typical cyclical movements, such as manufacturing always goes down in a recession and finance is acyclical.

MR. LACKER. And housing always goes down in a recession.

MR. AARONSON. Housing and construction always go down, so we take that out, and then we say, okay, so now there are these atypical movements that are greater than we usually

see. That is what we would consider the sectoral reallocation. That is what is left over. You can see, as I mentioned in the briefing, that actually during recessions there is a lot of sectoral reallocation, even once you take out the usual declines in employment that differ across industries. That is because each recession has different causes. Different industries have grown a lot during the boom—like finance recently or, say, communications during the late 1990s—and those sectors are going to shrink more than usual during the recessions and get back to more of an equilibrium state. That is what is going on here.

MR. LACKER. Yes. So it is sort of a bummer that these go up in the recession if you are trying to measure what is happening to the NAIRU. But I always thought of the phrase “sectoral reallocation” as having to do with the theories of the business cycle in which cyclical downturns are caused by an unexpected decline in a given industry that causes resources to shift out of that industry and that it takes time for them to be absorbed into some other industry. From that point of view—if you are trying to measure that component as opposed to policy-induced, widespread declines in activity—I would think you would want not to take out the cyclical part. I am thinking about housing. We devoted a lot of resources to housing in 2005, much less now. Those resources thrown on the market, in fact, are the proximal cause of the initial downturn in employment growth. A lot of ancillary industries are related, so I would think that, if we didn’t take out the usual housing cyclical thing, which is really sharp in the early periods, you would see a bigger rise here.

MS. AARONSON. I have looked at that, and actually, it doesn’t make that much of a difference. Construction goes down in every recession, and so by that measure sectoral reallocation is higher in every recession. I mean, construction is contributing more to sectoral reallocation here than in previous recessions because the declines have been larger. So that fact

is captured. The fact that construction is having a larger-than-typical decline is precisely what is captured here. But even if you said, okay, well, maybe in every recession industries shrink and that is associated with some sectoral reallocation, the measure actually looks very similar—not just across the current episode but across all the episodes.

MR. LACKER. Yes, yes. I guess it is also related to how you think about the NAIRU. To some extent, if unemployment goes up in recessions, then what unemployment is supposed to be goes up in recessions as well, it seems. I have a question about the first exhibit. It is the first set of exhibits. It is also about commercial paper. Would you folks encourage us to view the improvement that has taken place in the A2/P2 market as a measure of how the A1/P1 market might have improved had we not intervened? It is sort of a baseline, right? It is like the control group.

MR. COVITZ. I think it is very difficult to interpret it that way because the intervention did happen and the bulk of the improvements happened subsequent to the intervention.

MR. LACKER. What sort of spillovers from our intervention in A1/P1 do we expect perhaps to have influenced or to have led to an improvement in A2/P2?

MR. COVITZ. I think that the decline in the A2/P2 overnight suggests improvement. But there is some concern about sample selection, and you have to worry about that at the same time. It could be just that you are getting higher-quality issuers in the A2/P2 sector. But it turns out you're not. It turns out that it explains only about half of that decline.

MR. DUDLEY. You know, it also may have helped the money market fund industry to keep its money knowing that there was a facility outstanding that could provide liquidity for that sector because we did see inflows back into the money market mutual funds.

MR. LACKER. So their willingness to buy A2/P2 may have been affected by another program, not the CP one. You are saying the money market fund program—

MR. DUDLEY. They provided more stability to the system as a whole.

MR. ROSENGREN. To the prime money funds.

MR. LACKER. So we can't separate the individual programs.

MR. ROSENGREN. There is a second factor. There has been discussion of extending the A1/P1 program to A2/P2, which the industry is certainly aware of, but I would highlight with the A2/P2 that a lot of the mutual funds do not want to hold it over the end of the year. Most of the A2/P2 borrowers are having trouble rolling over year-end. There is a real risk that that market will have to rely on backup lines of credit, and it's not clear whether the A2/P2 market comes back after the New Year, if that happens, or in what capacity it does. So I think the real test will be to look at this chart in January or February.

MR. LACKER. Well, you wouldn't expect speculation about imminent extension of the program to A2/P2 to support the overnight rate for A2/P2 unless they expect it to be implemented overnight. A question about strains: To what extent are we able to disentangle whether the market is strained or the issuers are strained?

MR. COVITZ. In the CP market itself?

MR. DUDLEY. You can look at credit ratings, for example, or what's happening to their profitability. It is highly likely that the strains in the CP market are more dramatic than any change in the underlying financial condition of the A2/P2 borrowers.

MR. COVITZ. You could think about what the default risk is, say, for the corporate sector. You could break down a pretty simple model of defaults conditional upon our outlook for the economy, and that would have the default rate rising.

MR. LACKER. But you don't observe investors' expected defaults themselves.

MR. COVITZ. You don't, but you can take a guess at what you think that is, and it is higher. It is not at Great Depression levels under any of the models I've looked at. It's not even at the levels of default rates in 2002.

MR. LACKER. So you are saying that this paper is underpriced. Is that how you measure strains? I am always curious as to what strains mean.

MR. COVITZ. The way that I'm referring to it is just that risk premiums are really, really large. I'm not saying that they are necessarily irrational. I am just saying that they are really, really large.

MR. LACKER. Thanks. Great job.

CHAIRMAN BERNANKE. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I have a question or observation, which is of the optimistic variety although it presents sort of a challenge. In the medium-term outlook in exhibit 4, if you focus on 2010, the Greenbook projection has real GDP growing at 2.4 percent. We're beginning to come out of this. The unemployment rate is peaking. If you could implement the optimal control federal funds rate, it would be bottoming out. Maybe that would mean whatever quantitative easing credit programs we would be doing would be at their peak and maybe would be coming off. But it is also the time that the inflation rate is low and continuing to fall. This is going to be a tension for us as we start thinking about, and we are about to engage in mentioning, the possibility that inflation could be—well, whatever—lower than ideal. What would you guess the risks might be around that inflation forecast? How hard is it going to be for us not to continue to worry about inflation being low or to communicate that inflation is going to continue to be low even though things are improving? Just any kind of advice would be helpful.

MR. STOCKTON. My guess is that, if our baseline forecast evolves in the way we are expecting here, you are still going to be worried about the downside risk to inflation even if, in fact, we were in the process of bottoming out because there will still be a very substantial output gap. On the commodity price side, things are fairly stable, and at least in our forecast, inflation expectations are probably drifting down some. On the other hand, there are upside risks to that inflation forecast as well. I do actually think that our baseline forecast, on the assumptions that we have had to make in constructing it, is reasonably well balanced because another possibility is, in contrast to the gradual downtrend that we're expecting in inflation expectations, that inflation expectations will be stickier, you will be able to convey a greater sense that you wouldn't want inflation over the longer haul moving down below 1 percent, we won't get as much disinflation into inflation expectations or into labor costs, and you'll get greater stability there than we're expecting. So to my mind, looking ahead, monitoring how those inflation expectations evolve in the context of an economy where things are weakening will be very important.

MR. EVANS. Thanks.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. On the same topic—the medium-term outlook and, in particular, the optimal control exercise at the bottom, which is showing us how we're constrained—is there some quantitative policy that we could undertake that would get us to the green lines here, maybe by creating more inflation than we would think desirable in the long run?

MR. STOCKTON. The point of constructing this optimal control is to say that, gee, if you weren't constrained, here is how we thought optimal behavior—the sort of optimal outcome—would be, given the shocks. You're asking me whether or not there are quantitative policies that you could put in place. I was actually hoping that you folks were going to be able to tell me.

[Laughter] You face a challenge in constructing policy, but we have collectively a challenge in understanding how whatever policies you implement are actually going to show through into our longer-term outlook. The point here is that, in the absence of some nonconventional monetary policy actions or substantial fiscal stimulus, we see a very extended period of weak activity, high output gap, and declining inflation.

MR. BULLARD. Sometimes what people do is they say, okay, suppose you could just control inflation directly, which we know is hard, but suppose then you just trace out an optimal path for inflation that would get you to the green line.

MR. STOCKTON. Obviously, if you could levitate inflation expectations, that would be one thing. The other thing is that note 21 in the package we sent you included some exercises that suggested, if you took actions that could significantly reduce the long-term Treasury rate and compress mortgage spreads, there would be ways in which you'd be able to provide more stimulus for the economy. Now, all those things we suggested, at least the ones that we showed in that note, weren't sufficient to get you back to equilibrium quickly. But there are policies, obviously, that we think will be able to provide some stimulus.

MR. BULLARD. This optimal control exercise then would have an objective that would be a quadratic objective in some real output or unemployment—

MS. AARONSON. Minimizing the unemployment rate and the deviations of inflation from its target.

MR. BULLARD. That's saying that you wouldn't be willing to suspend your inflation target for a while to improve things on the real side. I think that might be helpful as well because then the Committee could think about what those tradeoffs are. In ordinary times, you might have a certain weight on the two objectives, but you might shift that in other situations.

MS. AARONSON. If I can also just put this in a little more context—by the end of 2010, the gap on the unemployment rate between the baseline and the optimal control is about 1 percentage point. So if you use a simple rule of thumb from an Okun's law type of model, that would be a couple of percentage points on the level of GDP. GDP would have to grow a couple of percentage points faster over 2009 and 2010 to close that 1 percentage point gap in the unemployment rate between the baseline and the optimal control.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Question for Nathan. In an earlier meeting, if I recall correctly, there was mention of the European banks' exposure to emerging-market sovereign debt—a concern about the trend lines in that sovereign debt. Are you tracking that in any sense? My concern is that there could be another full-blown debt crisis of some kind coming. It is not covered in these charts, but do you have a sense of default risk on the part of emerging-market sovereigns?

MR. SHEETS. The European banks are particularly exposed, much more so than U.S. banks or Japanese banks. A big chunk of that exposure is to central and eastern Europe, and as you suggest, we see significant risks to the European banks as a result of that exposure. What makes it even a little dicier is that exposure is concentrated in several countries, particularly Sweden, Austria, and to a slightly lesser extent Italy. Recently there has been significant economic turmoil in Hungary and Ukraine. The Fund has stepped in, and the EU has helped as well with large financing packages. The latest one we're watching very closely is the situation in Latvia, where the exchange rate is significantly overvalued. The external position looks very, very dicey. The Fund is in there negotiating a program. There has been a lot of back and forth about what should be done with the exchange rate regime. The banking system also looks vulnerable—so what should be done with the banks? It is not exactly clear how all that is going to be resolved. My personal feeling is that, given

the risks—and the Europeans recognize the extent of the risks—if Latvia goes, it could blow out the rest of the Baltics and then sweep around into Central and Eastern Europe and then feed back into Western Europe. So I see the risks there as being of first order for the Europeans.

Given that recognition, I think that the EU and major European governments are going to do what's necessary to make sure that the situation in Latvia stabilizes at least for a while. The end game over the next several years is very much an open issue for a lot of these economies that were in ERM-II and evolving into hoping to adopt the euro. I think that there are potentially some very pronounced vulnerabilities and some painful adjustment that will need to happen in some of those Central and Eastern European countries. So absolutely that is a major risk. It's one we're watching as closely as we can.

MR. FISHER. Nathan, you would probably have been arrested for treason if you had said that in Latvia—literally. The economist who gives a negative forecast is arrested for treason. Stay here. [Laughter]

CHAIRMAN BERNANKE. Other questions? If not, let's start our go-round with First Vice President Cumming.

MS. CUMMING. Thank you. I thought I would make a couple of points that underscore the substantial increase in the downside risks that we incorporated into the forecast that you all received on Friday. That change was really encouraged by our economic advisory panel, which suggested that the downside risks were much larger than we were estimating at the end of November.

First, we have been meeting, as of course all of you do, with small business people. Bill Dudley put a panel of investors together, too, and I have a couple observations out of that and our discussions with community bankers. One is that the cutbacks in financing are very real. There is a

lot of evidence that the banks are going in and looking at lines and cutting them back to both investors and the small-business community. The small business community is also on the receiving end of much tighter financial management at their larger customers—that is, the people they're supplying—as those firms are not paying their bills or are extending the terms on which they pay their bills to a much greater number of days. That has induced a hunkering-down mentality on the part of the small business owners. The other sobering thing they pointed out to us—and this is very much in line with Governor Duke's comments about the community banks yesterday; we hear the same thing—is that small businesses and the community banks can hold out for a while but not forever; margins are getting squeezed, and financing is getting squeezed. The precautionary actions that the small businesses are taking will help them for a while, but they can't hold out for more than six or nine months.

That is a particularly sobering statement for us in the Second District because, despite the fact that we are at the epicenter of the financial industry in New York—a major driver for the Second District economy—we have only just barely started to feel the effects of layoffs and reductions in activity in the city. Our regional leading indicator index went down very, very sharply in the month of October, but that is still to be realized in the economy. In particular, when we have looked at past episodes, the declines in incomes that we have suffered in the region have ranged between 4 percent and 10 percent in the financial industry when we actually get into one of these adverse periods. That decline is usually spread over three or four years, so we are really talking about something that could last a good bit longer than six to nine months in our District.

Second, we do a survey of inflation expectations that is in many ways similar to the Michigan survey, and our survey results are almost completed and are very similar to those of the Michigan survey. But we do ask one question that isn't asked there, and that is about the longer

run—that is, the 2010-11 outlook for prices and inflation. From that we can impute a risk of deflation, which was 6 or 7 percent in early October and is now 12 percent. So that risk of deflation seems to be growing even in the kind of population that is surveyed by the Michigan folks. Thank you.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. Thank you, Mr. Chairman. As requested, I will be brief. Like the Greenbook, we see an economy in which the unemployment rate remains very elevated, and inflation is below my target for several years. Our own equations would indicate that these elevated unemployment rates are likely to put even more downward pressure on the inflation rate than forecast in the Greenbook. The labor market is extremely weak, and there is a significant risk of deflation. I believe that greater use of nontraditional policies will be needed to mitigate more-severe outcomes than encompassed in the baseline forecast.

On the financial side I would just highlight two points. First, many banks are placing interest rate floors on home equity loans and on commercial loans. Pervasive use of floors may make the choice of which low federal funds target to pick of little relevance to actual borrowing costs. We may want to consider surveying banks to get a better understanding of where these floors are currently being set. Second, many firms are reporting that their lines are not being renewed and are asserting that it reflects problems with the bank not the borrower. Discussions with community banks indicate that, for smaller borrowers, community banks are benefiting from this trend. However, it may be useful to understand better how the reductions in lines, particularly at troubled banks, are affecting the overall economy.

Just a general point. I think bank micro behavior is going to be very important for macroeconomic outcomes, and we might want to increase the amount of effort that we are putting

into understanding both their financial condition and how their behaviors may be changing over the next six to nine months. Whether that's done through the bank supervision process or the loan officer survey or which mechanism we use, I think we need to probably get a little more intelligence on exactly what those trends are. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The economic news since the last meeting has certainly been grim, and our presentation today bore that out. Our directors and other District contacts are quite gloomy, and their reports are also consistent with a broad-based pullback in discretionary outlays by consumers and firms.

In these circumstances with the funds rate around  $\frac{1}{8}$  percent, it is hard to see a benefit of prolonging any further reduction. I agree with the staff analysis that any potential dislocation in money market institutions is likely to be minor, and I observe that, to the extent that money market institutions provide value to the economy in the form of circumvention of prohibitions on interest and other legal restrictions on financial arrangements, the traditional welfare analysis would count their demise as a benefit rather than a cost. But I have to admit I haven't tried explaining that to a money market fund manager. [Laughter]

The hard question now, I think, concerns the possibility of deflation. We have seen negative overall inflation since energy prices peaked in July—it was 1.8 percent for the PCE at an annual rate since then and  $4\frac{1}{2}$  percent before today's release for the CPI—and the core indexes have softened notably as well. I still think we are going to be able to avoid this fairly easily, but I do not think the risk is negligible. It is one of the most dangerous prospects we face right now, and we have to pay very close attention to it. The reason I think it is going to be easy to avoid is that we have seen declines in core inflation before when energy prices fell—mid-2005 and late 2006 are recent

examples. Further, compensation growth does not yet appear to be slowing rapidly, although those data are fairly dated and so it is hard to sense what the last couple of months are going to look like. The key to avoiding deflation, of course, is our ability to shape expectations about the future course of monetary policy. I had a spirited discussion about this last night over salad with Governor Kohn and Mr. Eggertsson. This is essentially what all the models tell you—that staying out of a deflationary equilibrium requires commitment to paths for the monetary base that are inconsistent with a steadily falling price level and that commitment to keeping the nominal interest rate low is not sufficient.

Now, it is sort of hard to get a handle on this. It took me a while, but the key to thinking about this is that models with Taylor-type rules embed within them the perfect credibility of inflation returning in the long run or over a medium term to the targeted rate that is built into the Taylor reaction function. If instead you take those models and just allow arbitrary fiscal and monetary policy rules, that is when you are forced to face the result that committing to an infinite series of zero nominal rates is not sufficient and that you have to keep a monetary aggregate from declining along with the price level.

One way to think about this is that it is just like preventing inflation. To prevent inflation, we have to prevent expectations that the value of money will fall in the future. To rule that out, we have to rule out expectations that the quantity of money is going to rise continually, and we do that with interest rates. This line of reasoning is different from the reasoning you get in a Phillips curve with purely backward-looking expectations, where you have a recursive relationship between real growth and inflation. Instead, in any model with a little forward-looking stuff, you have expectations driving things. Preventing deflation is the same thing—preventing expectations that the value of money will rise indefinitely. To do that you need to prevent expectations that the

quantity of money will fall indefinitely, and you would like to do that with low interest rates, but you cannot at the zero bound. So you have to influence expectations about the future course of the base. This to me is the simple intuition for that. All of this is just to suggest that our ability to communicate is going to be crucial.

MR. KOHN. Including over salad. [Laughter]

CHAIRMAN BERNANKE. All of these strategies are time-inconsistent, of course. So we have to be willing as a Committee to sit here and accept higher-than-normal inflation ex post. I just point that out. We have to ask ourselves if we would be willing and if the public would be willing to accept that.

MR. LACKER. “Time-inconsistent” is another way to say that they require commitment.

CHAIRMAN BERNANKE. I understand. I’m just saying that there are also different ways to do it. We could also just target a higher inflation rate, which is probably another way of doing it.

MR. LACKER. Right. You could target the inflation rate not falling. I mean, we don’t have to go all the way. This is the subtle thing about this. I think the pure Taylor rule overstates our credibility, but people do not think that we are going to follow it perfectly. They don’t have very diffuse priors over what policies. We are somewhere in-between, and I think bolstering that credibility is important. Something I was going to say in the policy round—given that we haven’t announced a target, we ought to try that first. That comes first, before saying that we are going to move our target up for a little while.

CHAIRMAN BERNANKE. I would just comment—and I think that your point is a good one—as we go forward, we are going to be thinking hard about how to influence expectations. Absolutely. Your point is also right, as we discussed earlier, about why we need additional policies besides our zero rate policy, either other kinds of quantitative policies that are obviously linked to

base movements or fiscal or other policies as well. So I don't think there is that much disagreement on the analysis.

MR. LACKER. No, I do not think so. The point I was making about the base is that none of those is sufficient to rule out deflation without specifying what the base is.

CHAIRMAN BERNANKE. Okay. President Pinalto.

MS. PIANALTO. Thank you, Mr. Chairman. The reports from my contacts have been very weak for several weeks now. Sadly, I feel as though the data have been catching up with the anecdotal comments that I have been receiving for a while. I have been hearing a lot of comments along the lines of "orders have fallen off a sheer cliff," "the lights were suddenly switched off," and "my business is dead in the water." One thing I have noticed is that the negative outlook has spread to more and more corners of the economy, even those corners that had remained robust for a relatively longer period. For example, one of my directors, who runs a manufacturing company and exports 70 percent of his products, is a producer of highly specialized equipment that is used in steel production. He has few competitors and no debt, and until recently he was feeling very comfortable with a two and a half year backlog. Last week he reported that the backlog has essentially vanished. His customers' problems have now become his problems. This has become a typical refrain. We had become used to hearing companies talk about their desire to hold onto liquidity. Now businesses are also focused on how they are going to protect themselves in this weakening economy. Even businesses with a healthy amount of cash are cutting back sharply on investment, hiring, and production plans.

In this environment, it is clear that forecasts need to be revised down sharply. Like the Greenbook, my own projection, which seemed pretty dire just a month ago, has also been revised down sharply with the incoming data and anecdotes. The question now is how long and how deep a

decline we will experience. At the same time, it also remains difficult to judge how far disinflation will go. My projection sees substantial output gaps and energy prices that are likely to remain low. That has caused me to lower my inflation projection further as well. My inflation forecast now is clearly below desirable levels for much of 2009. Still, it looks as though the risks remain very much to the downside for output and inflation, if only because further downside misses are getting more and more problematic. The insurance metaphor, I think, has been exhausted. We are now more in a situation of treating mass trauma. Perhaps some of our actions will later be judged as having gone too far. But in my view, right now it clearly is better to ensure that the treatment is large enough rather than risk falling short. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. The Third District economic news is similar to the national news. It's all bad. Our December business outlook survey, which remains confidential until Thursday, will post another very weak number. In November the number was minus 39.3. The December reading will be released, and it will be minus 32.9—somewhat better but still deeply in negative territory. New orders, shipments, and employment are all very weak. Price indexes on the survey have fallen appreciably below zero for the past two months and are near their lowest levels since we began the survey in 1969. This is after being at nearly their highest levels over the same interval just a few months ago. Moreover, firms are expecting prices to continue to decline. November's reading marked the first time that the future prices-paid index has been negative. The mood is generally quite grim. The Greenbook also paints a very bleak picture. I would like to think that this isn't the most likely outcome, but it is increasingly difficult to argue against that based on recent economic data. I have revised down my own forecast, of course. Although I'm still not quite as pessimistic as the Greenbook, I admit that the Greenbook is no longer an outlier as I am used to

thinking about it. The forecasts for output are nearly as bad as or are worse than the economy experienced in 1974-75. Inflation has moderated significantly, and near-term inflationary expectations have also moderated. Our December Livingston survey participants see CPI inflation averaging just  $\frac{1}{2}$  percent in 2009. In the Greenbook, forecasted core inflation will be just over 1 percent next year and will decelerate to  $\frac{3}{4}$  percent in 2010.

With the growth prospects so weak and inflation expectations decelerating, the appropriate real funds rate obviously will probably decline, raising the possibility as we discussed yesterday that the zero bound on nominal rates will pose a problem for us. At the same time, since mid-September the effective funds rate has been trading well below the FOMC's target of 1 percent. As we discussed yesterday, we are effectively conducting monetary policy through quantitative easing—by which I mean an expansion of the Fed's balance sheet by both conventional and nonconventional means. I have no objections in principle to this easing process; but as I discussed yesterday, I believe that we need to acknowledge publicly that we are now in a new regime, with a new way of implementing monetary policy, and that it is a deliberate choice of this Committee. Otherwise we risk confusing market participants or implying that we are no longer in control of monetary policy. But in doing so, we need to communicate how this policy will be conducted going forward. The Board of Governors and the FOMC will have to decide how they will handle the governance issues surrounding this new regime. It seems clear to me that monetary policy determinations should remain in the purview of the FOMC regardless of whether we are using standard or nonstandard policy tools.

Thus, I think we have to come to grips with three very important policy issues at this juncture. They include (1) how to implement monetary policy via an expansion of our balance sheets for standard fed funds targeting; (2) what decisionmaking process the FOMC and the Board

should use in implementing these policies via the balance sheet expansion; and (3) how to communicate all of these to the public in a transparent and, most important, credible fashion. I agree with the Chairman that we need to maintain and embrace the collaborative process between the Board of Governors and the FOMC, which has been our method of moving forward during this crisis. But I remain convinced that in these times of uncertainty we need to be explicit and to communicate that monetary policy remains under the purview of the FOMC. As we discussed yesterday, our primary goal is to set policy that yields the best economic outcomes for the economy, consistent with our dual mandate. I think our history demonstrates that the institutional structure of the FOMC and clearly articulated goals and methods yield the best policy. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I think President Fisher at the last meeting actually proposed that, since we all knew where the economy was, we just suspend discussion and get on to what to do about it. Forgive me for a six-week reaction function here, President Fisher, but I tend to agree with that. I will be very brief. The points I will make have either been made or will be made, I am sure. [Laughter] We are facing dysfunctional financial markets, a rapidly weakening real economy, and a very negative psychology, a darkening mood. In addition, I am picking up in my contacts uncertainty or even questioning of what can be done and what good anything close to conventional monetary policy will do. My board of directors, advisory councils, and other contacts reflect deepening pessimism, and many of those contacts confirm the view that consumer activity and the economy in general pulled back dramatically in September and October.

I have adjusted my forecast similarly to the Greenbook and commercial forecasters. I think it is very difficult at this point to forecast with any confidence that conditions will gel in a way

necessary for a recovery. The Greenbook sees a somewhat sharper snapback by midyear, reflecting the influence of a fiscal stimulus, than I am prepared at this time to project. Our forecast assumes a protracted period of weakness through all of 2009, somewhat more along the lines of the “more financial stress” scenario in the Greenbook.

Regarding financial markets, I would just comment that the pressures on the hedge fund sector have clearly not abated and may be intensifying. Over the weekend we picked up rumors of a Fed intervention that has not been discussed here, so I presume that it was just a rumor. Nonetheless, rumors were circulating that a major hedge fund group was about to collapse and that our people were “in,” so to speak, over the weekend. As Bill mentioned yesterday, the Madoff scandal certainly has not helped the picture regarding hedge funds.

Regarding risks, it is not my baseline scenario, but the risk of deflation obviously cannot be ignored, and the apparent speed of disinflation is quite a concern. The Atlanta staff prepared several forecast scenarios, and there were some plausible downside scenarios that really were quite ugly. So to preview later comments, I think the balance of risks at this point is decidedly to the downside and justifies a trauma-management approach—or, in more normal terms, a risk-management approach—of acting aggressively at this meeting. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, and if there has been any intervention in hedge funds, the Chairman is unaware of it. [Laughter.]

MR. LOCKHART. I am relieved to hear that.

MR. FISHER. He just wanted you to know about it, Mr. Chairman.

MR. LACKER. You said “has been”? [Laughter]

CHAIRMAN BERNANKE. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. The Tenth District's economy, like the others, has systematically worsened. Layoffs are increasing. Our retail sales are down. The housing market is certainly not improving, and manufacturing has weakened. In our two stronger areas, energy is showing a pretty good slowdown with these falloffs in prices, and rigs are being stacked; the agricultural sector is also feeling the pressure as commodity prices fall. So it is uniformly poor. As far as the national economy and outlook go, I have no major differences with the outlook that has been presented by others. I would tell you that we have done different projections ourselves. I think a lot depends on what will be developed on the fiscal side as we move from here, and I am kind of waiting to see about that.

I do have one other comment and perhaps request as we think about this, and it follows on yesterday's conversation. It strikes me, as I look broadly and see what's happening in our own region, that the intermediation process is broken as it goes through the banking industry and then more broadly than that. The deleveraging process that is under way is actually accelerating—it is worsening and complicating our ability to fix the intermediation process. As a result, we as the central bank are going around that process as we try to get credit working, and I understand that. But it does have consequences—some good for those particular markets where we're bringing intermediation forward but also perhaps some not so good as other sectors are left behind in that. My point is that we really do have to focus, in working on the fiscal side with the Treasury or whomever, on fixing the broken intermediation process, and that is the banking industry. I know we are working with the TARP. It needs some additional work. But out of that comes my request. We spent a fair amount of time yesterday talking about the Japanese experience. I wonder if we wouldn't benefit if we looked at the Nordic experience of the early '90s—how you go in, take a look at that, and how you conduct policy around that—and have a discussion among ourselves

because I think there are some lessons there that we might learn to our benefit as we move forward from here. That's a suggestion I have, not just my report on the District. Thank you.

CHAIRMAN BERNANKE. Thank you. It was a good suggestion. I have looked at that example and had a chance to talk with Stefan Ingves, who is the Governor of the Central Bank of Sweden and was very much involved in that. It was a very good and prompt response, but it was different from our current situation in that the banks were already mostly insolvent and no longer functioning when the government intervened. They took the standard steps of taking off nonperforming loans—so the usual process. They still had a significant recession. I think the basic lessons are there, but we have some characteristics in this particular episode—banks still functioning, the complexity of the assets, and so on—that make it even more difficult.

MR. HOENIG. I agree with that, but at the same time, I see the similarity. When you don't go in and try to drive it back quickly, you get the Japanese outcome of prolonging it. I don't know where the banks are yet, but I know that things are getting worse and that the intermediation process is broken. So just maybe there is something in-between—something that can be done that forces outcomes for some of these banks. Even though they are not insolvent as such, we have poured a ton of equity into those institutions, and I am not sure if we shouldn't have added some other elements to that that might have helped on the other side. That's my point.

CHAIRMAN BERNANKE. If you can indulge just one more observation, which is that one thing we learn from these episodes is that the political economy matters tremendously. The public is very reluctant to get involved in putting money into banks, and only when they become persuaded that doing so is essential do you get that result. In Japan it took a long time. In Sweden it was much quicker, and that's an important element. A two-hander from President Bullard. Yes.

MR. BULLARD. May I just make one comment on that? For those of you who have not read about the Nordic experience, Seppo Honkapohja, who is a member of the Board of the Bank of Finland, has given a speech within the last two months. You can probably go to the Bank of Finland web page. There may be other information, but that is just one summary from a person who lived through it and has been involved in policy for a long time.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. In my view, cumulative recessionary dynamics are deeply entrenched, with mounting job losses leading to weaker consumer spending, tighter credit, more job losses, and so on; and this nasty set of economic linkages is gaining momentum. Like the Greenbook, I anticipate a long period of decline, and in fact, the consensus forecast is that we're now in the longest and one of the deepest postwar recessions.

I hope that a recovery will begin in the middle of next year, but the risks seem skewed to the downside for several reasons. First, compared with the average recession, we face unusually difficult financial conditions. My contacts complain bitterly that even firms with sterling credit ratings have difficulty securing credit. Some banks appear reluctant to lend because financial markets are skeptical about the quality of their assets and their reported net worth. An accounting joke concerning the balance sheets of many financial institutions is now making the rounds, and it summarizes the situation as follows: On the left-hand side, nothing is right; and on the right-hand side, nothing is left. [Laughter] The second factor skewing risk to the downside is the unusually fearful and pessimistic psychology that's developed. One director, who heads a national department chain, predicts carnage in the retail sector after year-end, as stores close after trying to hold on through the holidays. Although some stores have been able to keep sales up to reasonable levels, heavy price discounting will translate into huge losses. Businesses have also generally turned very

cautious, hoarding cash and slashing capital spending. A third factor that worries me is that, in contrast to many past recessions, this one is global in nature, and the fact that it's a worldwide slowdown—while lowering commodity prices, which is good—is also going to make it harder for us to pull out.

Turning just very briefly to the labor market, the Beveridge curve chart that Stephanie presented during her briefing suggests that we have seen an unusually large increase in the unemployment rate recently in comparison with the decline in job openings, at least in the JOLTS data. I think one interpretation might be that the unemployment rate has risen in part because we have had an unusual rise in labor force participation during this recession. Labor force participation has been higher than would be expected, particularly for three demographic groups: young adults, married women, and older workers nearing retirement. Analysis by my staff estimates that this rise in participation could reflect behavioral responses to unusual credit constraints and wealth declines. Specifically, young adults aged 20 to 24 years appear to be entering the labor force in unusual numbers, and that might reflect diminished access to student loans. Similarly, more married women are entering the labor force, and that's a possible reflection of diminished access to home equity and credit card loans. Finally, an unusually large number of older workers are in the labor market, and that may reflect the negative wealth shock associated with the collapse of housing values and the plummeting stock market. All in all, I expect the anomalous increase in labor force participation to put continued upward pressure on the unemployment rate.

With respect to inflation, developments since our October meeting have again lowered the outlook. I'm particularly concerned about the disinflationary effect of actual and prospective economic slack. During the postwar period, core PCE inflation has actually fallen at least  $\frac{3}{4}$  percentage point in every single year in which unemployment has averaged  $7\frac{1}{2}$  percent or more.

Given that in each of the next two years the unemployment rate is predicted to average at least 8 percent, it seems quite likely that by the end of 2010 core inflation will have fallen at least 1½ percentage points. That creates a very real risk of deflation. So under these circumstances, I definitely believe that we should do everything in our power to stimulate aggregate demand.

CHAIRMAN BERNANKE. Thank you. President Evans.

MR. EVANS. Thank you, Mr. Chairman. As gloomy as our last meeting was, conditions have deteriorated substantially further since then. Practically all of my contacts reported that economic events had turned sharply lower once again in the last three to five weeks. This goes well beyond the auto sector and other parts of the District that have been struggling for some time. The most optimistic comment from my directors was this, “At least Iowa is going to hell slower than everywhere else.” [Laughter] It is tough to follow that accounting joke, you know—that was good. More seriously, the most optimistic theme I heard from a number of business contacts went something like this, “We are conserving cash and furiously cutting costs by year-end. But we hope to pause in the first quarter and take stock of where conditions appear to be heading. Then, we will act accordingly.” Frankly, I doubt such a wait-and-see pause in cost-cutting will occur that soon.

For the purposes of this meeting and our actions over the next few months, I agree with the main thrust of the Greenbook projection. We are facing large contractions in the next two quarters, and I don’t expect to see meaningfully positive growth before the fourth quarter. I think we need substantial further accommodation after today’s meeting. I see the timing and the size of those actions for the most part being shaped by the large recessionary forces in train and the enormous financial headwinds.

The disinflationary forces in play clearly are strong, but currently I do not expect that they will prove large enough to generate outright deflation. In terms of my earlier question about the Greenbook forecast—as I understand the way it was put together—if the quantitative easing helps, monetary policy would be somewhere between the funds rate at zero and the optimal control. So, in fact, it would be a little better than I first suspected. Inflation would be somewhat above that path. That might be a useful benchmark to watch for if we are fortunate enough for the forecast to be that stable, but time will tell.

Quantitative easing should also lead to an increase in the monetary base. I don't know if there was any lasting conflict between your comments and President Lacker's, but I think that what we have contemplated will lead to the base increasing and that will generate expectations about inflation beyond just Taylor-rule dynamics, I would guess. In fact, there is certainly a lot of discussion and criticism out there that our balance sheet is going to lead to large inflationary risks. I don't share that, given how I think we will unwind the programs. But that certainly would help, and it would move us in that direction. So I will keep an open mind on deflationary risk. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, as just about everyone has said—and I certainly agree—the near-term outlook is grim. Virtually all the anecdotes of any consequence that I have received recently have been negative. Payroll employment has been, obviously, dropping significantly; and if you look at the trajectory, if that kind of trajectory continues for any length of time beyond the next month or so, it will surpass the declines in employment that we typically have seen, certainly in the last three recessions.

My outlook for the real economy for the next five or six quarters has essentially the same profile as the current Greenbook. I do have a somewhat better recovery starting in the second or third quarter of 2010, but at this point I have to admit that it is more hope than conviction. It is based on a diminution of many of the factors that are currently restraining the economy and producing the significant contraction that is under way.

As far as the inflation outlook is concerned, I don't have quite as much disinflation as the Greenbook does, but I wouldn't say that we are all that far apart at this point. One footnote to that: I do get a lot of comments and questions along the lines that President Evans mentioned—"Gee, with that expansion in your balance sheet, with all those reserves, aren't we going to have a lot of inflation in the future?" Maybe I ought to say "yes" to that question.

CHAIRMAN BERNANKE. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I will be brief. In the Eighth District, there is a clear and sharp downturn, as in the national picture. There is a clear turn to survival strategies, and you really see that when key CEOs and other figures start talking about lower capital expenditures for 2009, cutting the lower levels in 2008 in half or more. I think that's very consistent with the Greenbook. The effects on our District from any auto restructuring may be substantial, and that is something I have ratcheted up here in the last few months. A common theme among all contacts—and it echoes some of what has been said around the table here—is that rate cuts at this point will have no effect on the macroeconomy. Their thinking is, well, of course, since short-term Treasuries are trading at zero—I think one-month Treasuries actually hit zero here a bit ago—they are not going to have any effect. But as Governor Duke pointed out yesterday, and I think this is an important concern, the impact on bank profitability may be substantial, exactly at the wrong time. First Vice President Cumming picked that up, too. I think

that is a concern. I think it suggests favoring an option of de-emphasizing the federal funds rate as a target at this meeting, as we will get to in the policy discussion. But then you might not trigger this prime rate cut that would otherwise normally accompany a major move by the Fed.

On the national picture, I expect a sharp downturn in the fourth quarter and the first quarter. Expectations are extremely negative now and extremely fluid. I think that is probably the biggest factor facing us going forward into 2009. The expectations are so fluid that they portend a deflationary environment if we do not control the situation very soon. I am also very concerned about the global aspect because we haven't really seen this kind of coordination across the globe in the rapid movement to probably zero interest rates. I don't think we really know what that means going forward. We are going to be looking at bad news coming in at least until summer, and we have no way at this point to signal a reaction to that bad news via normal policy. That is the gravity of the situation, and in some ways it is the downside of a preemptive policy. Had I been on the Committee earlier this year, I would have supported the preemptive policy to try to avoid this situation. But one downside of it is that you do not have the ability to continually react as bad news comes in.

In sum, I think we are moving to a Japanese-style deflationary, zero nominal interest rate, situation at an alarming pace. To stay in the game and control expectations, we need a Volcker-like transformation, something like—although the situation is different—the '79 announcement, which knocked private-sector priors off the idea that they should trigger all reactions to announcements on nominal interest rates. You need a dramatic move that emphasizes this new reality. Continued focus on the federal funds rate at this point would not face that reality.

Above all, we have to establish in the minds of the private sector—and maybe in our own minds as well—that we control medium-term inflation. We should take the attitude that we can

create the inflation we need to stay near target by one means or another. I think, actually, this may be an excellent time to set the inflation target, although it sounds as though we are drifting away from that. But if I can argue for it for a few minutes here, I think it might have an important effect on the navigation through the recession during 2009. Of course, in normal times, to undertake some action like that, we would want a lot of study, and we would want to have time to talk it through with the Congress and other interested parties, as we would for interest on reserves. But we don't have that luxury right now. We want to take the action now to help control the situation, and I think we could sell that as a work in progress, which can be modified later. But we do want to keep these expectations under control in this very fluid situation. Thank you.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, thank you. President Rosengren talked about micro behavior, and at the beginning, First Vice President Cumming talked about the hunkering-down mentality. I have been focused on the microeconomic behavioral responses to our current situation. As one of my CEO contacts outside my region said, we are basically all, in his words, "chasing the anvil down the stairs," and that is that the behavioral responses of both businesses and consumers are driving us into a slow-growth cul-de-sac and a deflationary trap.

One CEO I talked with was quite pleased that he could borrow \$40 million over the weekend for a total of \$250. That is great from a commercial paper standpoint; he is an A1/P1 issuer. However, were he to go to the longer-term debt markets, it would cost him 7½ percent. So they can finance their daily operations easily. But in terms of their long-term planning, they and others are responding—and I see this uniformly across my contacts—out of concern about the high cost of debt and the spreads over Treasuries, by doing what any businesswoman or

businessman would do. They are planning on less cap-ex, and they are cutting back on their plans for acquisitions of the weak, which they would like to take advantage of under the current circumstances. They are also responding to the situation by cutting back on head count. So, Chris, there is very much a hunkering-down mentality, not just in my District but across the country. That leads to further economic weakness—that plus the fact that they are chary about issuing and paying for things with shares in a very weak market. I am hearing more and more worries about their pension liabilities and how they are going to be able to finance those. Obviously this is leading to the kind of economic behavior that none of us would like to see.

On the consumer side, you see a similar behavioral pattern. It seems that after Black Friday, according to my sources, there was weaker behavior than one had expected. The spending pulse data that I get from one of the large credit card companies reflect what one would expect under these circumstances—that is, a shift to nonbranded products, smaller purchases of items, a rotation out of credit cards to debit cards and cash payments according to the pay cycle, and overall an expectation, on both the business and the consumer side, that things will get cheaper if they wait longer and they postpone either their cap-ex or their consumer purchases.

The one ray of sunshine that I was able to find is that one large law firm, Cravath, has announced that it is not increasing its billing rates in 2009, [laughter] and other law firms are actually planning to respond by cutting their billing rates. One woman whom I know summarized it this way: “This is the divorce from hell. My net worth has been cut in half, but I am still stuck with my husband.” [Laughter]

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. I am not going to even try to top either of those anecdotes or jokes. I agree certainly with the thrust of the comments around the room. The economy is in a steep decline.

There was a break in confidence somewhere in September that took what had been a gradual decline in employment, production, and output and made it much, much, much, much steeper. The feedback loop between the financial markets and the real economy just intensified—turned up many, many notches at that time. Households and businesses, as President Fisher was remarking, are very worried, and they are acting in a way to protect themselves. They have cut back on spending, and they have cut back on lending.

I think the response of businesses is particularly interesting. They responded very, very rapidly to the falloff in demand with cuts in employment and production. So we are not even getting the sort of automatic stabilizer effect that we usually get from a buildup in inventories and a bit of labor hoarding as demand drops. Thus businesses' actions are just accentuating the weakness. As many have remarked, the weakness is global, everywhere, including in emerging-market economies where, as Shaghil showed us, the inflow of capital has slowed substantially. There is no real region to lead the globe out of this swamp we are in.

Financial markets remain very strained. I think of particular concern are the securitization markets. When they are not operating, a lot of credit to households and businesses won't be available at the same time that the banks are tightening up very sharply. We have seen in these charts that household and business borrowers with anything less than very high credit scores are just finding credit either extraordinarily expensive or unavailable. As a consequence, a very sizable output gap has opened up. I think we can see that the decline is going to remain steep for some time. The multiplier–accelerator effects of the drop in demand we have seen over the last couple of months have to feed back through consumption and investment. I don't think we have seen the full effect of the tightening in credit conditions and the decline in wealth from the end of September on.

You can see the continuing economic decline in the initial claims data, the weekly IP, and the anecdotes we heard around the table on sales; and financial markets are going to remain impaired for a while despite our best efforts to open them up. There are huge losses in the capital of intermediaries to absorb, so folks will be very cautious about making loans. As long as investors, savers, households, and businesses see the economy in steep decline, the fear that is gripping the financial markets and the economy isn't going to abate very rapidly.

Inflation is decelerating across a broad front, and that is going to continue. Economic slack will be increasing, cost pressures will be abating, and the ability to pass through cost increases will be highly constrained. So far, longer-term inflation expectations seem to have been reasonably well anchored, though they are very hard to measure. But I agree with President Bullard that we are going to need to watch this very, very closely for signs of a disinflationary dynamic taking hold. I think what happens to the economy and inflation over the latter part of next year is extremely uncertain. We have huge changes in forecasts in very short periods of time, and I suspect, like the staff, that the improvement in financial markets and the rebound in the economy will be gradual, in part reflecting the limited power of monetary policy. But even if we thought that a sharper rebound next year was a distinct possibility, I don't think it would matter very much for our policy purposes here today. The trajectory, the economic decline, the extent of the output gap, and the degree of disinflation in train all imply that our task at this time is to try to limit economic weakness. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Several quick points. First, the latest leg of deterioration, which began in mid-September, is showing few signs of abating, as Governor Kohn suggested. I think the November retail sales data look like a head fake. Revisions to

September and October, as the Greenbook suggested, make us think that November was probably worse and December worse still. So in some ways I think our job is difficult because the weakness seems to be accelerating.

Globally, the deterioration is found everywhere. The data are playing catch-up. I am less optimistic that foreign activity will perform as well as the Greenbook suggests and that foreign activity will respond in 2010 because of lags in policy response and less flexibility in their labor markets, their product markets, and their political markets. The depth and the degree of the fall in data and policymakers' expectations overseas, particularly in Asia, are remarkable, shocking even, and I think we are likely to see policy responses there that are hard to judge but are likely to be changing pretty quickly.

In terms of U.S. households, real household net worth has collapsed about 15 percent or so through the end of the third quarter—more than in 2001 and more than in 1974. Ongoing declines in financial markets and house prices are likely to depress wealth further in the fourth quarter and beyond. So-called savings from lower energy prices look as though they pale in comparison to what else is happening to U.S. household balance sheets. As we have discussed before, every asset everywhere in the world is being revalued, and households are feeling it.

In terms of financial markets, I will underscore what Dan suggested and what Bill suggested yesterday—the significant overall deterioration in conditions. We all have a tendency at this point in the year to say, “Well, there are a lot of year-end effects, and we are not going to really know until we get through this period.” We have had baby versions of year-end effects in the quarter-end effects in almost every meeting that we have had, and I have been a little dismissive of those. I would say that there does appear to be more year-end stuff going on in these markets than there has been since this period of weakness began.

If you think about the two former investment banks that have balance sheets and year-ends that close at the end of November, this is the last quarter in which they will have that. They have had more demands and more interest in, in effect, renting out their balance sheet as their customers' balance sheets end in December than they ever have had. The prices that are being paid for them to rent their balance sheets—to take exposures off the balance sheets of their clients—suggest that maybe, just maybe, the year-end effects are more significant this time than they were in the previous six or seven quarters. It doesn't give me a ton of optimism, but in January, market functioning could look a little better, and I think that would be the best news we have seen for a while. You have heard me say before that, until we see market functioning improving and until we see these markets clearing, it is unrealistic to expect the real economy to turn. I still think that is true.

Turning to two final items, inflation and the fiscal package—on the inflation front, although there are risks in this environment for prices to fall below those consistent with price stability, I still believe that these risks are not likely to materialize in the medium term. So I take stock of, but ultimately discount, the Greenbook's deflation alternative simulation. On the fiscal front, more, bigger, faster is what is going to happen inevitably to what I would describe as the first fiscal package of 2009. The trillion dollar number over two years, which is now being bandied about, is larger than the Greenbook forecast and looks almost assured, with a greater share going to the states in my view than in the Greenbook forecast, more toward public infrastructure, perhaps less toward tax cuts on a relative basis than in the Greenbook, but bigger. I would be surprised if that initial package isn't supplemented through larger annual appropriations and another stimulus package, if not by the end of 2009 then by 2010. As a result, my own sense would be that the 2010 deficit is likely to be significantly larger than the

Greenbook forecast. Now, knowing the precise contours of this fiscal package is tough. I would say the only good news is that the duration of the slowdown is likely to suggest that the fiscal package may end up being somewhat more permanent in its incentives and somewhat more permanent in its effects; and I suspect, because of that, it is likely to provide some good news to the economy. But I wouldn't expect that to happen in the next twelve or eighteen months, other than perhaps a bit of benefit on the arithmetic. In terms of changing the overall contour, pace, and strength of the resilient economy, I would say that is still quite a way off. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thanks. President Lockhart's forecast about what members would say about the forecasts I think has turned out to be right, and I certainly don't want to disappoint. [Laughter] So I agree with what others have said, and I think most everything has been said about the intensification of the recessionary flames around the world. What I will do is just quickly look at it from the perspective of part of the banks' balance sheets and the things that may not be left on those balance sheets, to just underscore how I think this is going to be protracted for the financial services sector for a while.

On the consumer side, as many people have mentioned, the very sharp step down in employment, the very large job losses, the increases in the unemployment rate, and the decreases in wealth have been leading to very significant increases in consumer delinquencies and very high roll rates—that is, people who become delinquent rolling directly into charge-off. This is happening not only on the credit card side and on a lot of different parts of the consumer side but also in mortgages, for which we are seeing exactly the same kind of thing. Although the most recent numbers that came out from the Mortgage Bankers Association suggested some

stabilization in foreclosure starts, that actually had more to do with the laws in various states slowing down that process rather than any real change in the underlying economics. Of course, we still have a lot of option ARM types of resets that will be coming through in 2009. So a lot of pressure is there, and as was mentioned, housing prices are still going down.

We haven't yet seen as much of an actual downturn in commercial real estate, but undoubtedly that will occur as fewer people are shopping in shopping malls and as a lot of other commercial real estate projects don't have the payoffs that people expect. Also, an enormous amount of refinancing is going to be necessary during the next few months, and having to pay an additional 600 or 800 basis points really changes the economics of a lot of these projects, if they can even get the refinancing at an additional 600 to 800 basis points. For leveraged loans, another piece of the balance sheet, as people have said, there is very little activity going on in takeovers. The only positive there is that the failure of certain deals has taken some of the pressure off certain banks' balance sheets.

On the commercial and industrial side, as we have noted, the investment-grade market for debt issuance seems to have maintained itself, but that is really one of the few markets that is there. If any challenges come in there, it could be very, very difficult for firms to finance investment. We certainly have seen the spreads going up recently, even if the volume has come back a bit. But as we have seen in the non-investment-grade part, the spreads have blown out, and the financing is not there. That tends to be a little more of what many banks have on their balance sheets, and so I think that is representative of the challenges that the banks are going to have. That suggests that we have a lot of challenges in banking and financial institutions' balance sheets to come that have nothing to do with any particular level of assets or accounting

issues but just real economic factors that are going to be affecting the balance sheets. So the credit headwinds are going to be very, very strong for a number of quarters going forward.

The points that President Rosengren made are extremely important ones. We have to think about, as we move to the zero lower bound, how that is going to affect behavior of financial institutions. Certainly, the staff memos were good on addressing some issues, but I think that other things that have been mentioned, like imposing minimums or floors on interest rates on loans, we have not carefully analyzed or really understand well. There may be a variety of other responses that we don't understand well that we really do need to get a better handle on, both to see how the effects of traditional monetary policy change—the transmission mechanism—and to think about the nontraditional aspects of monetary policy that we would be undertaking by using our balance sheet. So where can we use it most effectively? If the financial institutions are changing their behavior, we need to be cognizant of that and think about where we need to try to unfreeze markets if we are going to be using our balance sheet in that way, and I think it is very important that we do so.

I will underscore also what other people have said about the great importance of clearly articulating what we are doing. It is not that we have given up and that the Fed is impotent but that, through changes in our balance sheet, we can be quite potent in particular markets and in general. That then brings us to whether we can be too potent and raise inflation concerns. Exactly as President Stern said, we should be so lucky to have that as our problem. We do need to make sure that we maintain credibility and show that we feel that we can and do act to offset concerns about deflation. It is very difficult to tell what the price-level evolution is likely to be over the next year, but I do think that there is a real concern about that, and we have to take that very, very seriously going forward. I think we would, obviously, be able to get out of these

different programs, and we need to think about getting out of them at some point. But right now the key is getting into the programs, using the nontraditional approaches, to make sure that we offset a deflationary psychology that could develop. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. Yesterday I talked about the income statement of the banks. I would like to talk a bit about the balance sheets now. Up to this point, for the small and medium-sized community banks, it has been pretty much business as usual. But now even those banks are finding it increasingly difficult to lend. Community banks and regional banks are trying, but it is tough. Funding is tight and expensive. It costs 3½ percent to keep a CD and 4 percent and up to attract one. The smaller banks are especially bitter about pricing against Citi and those nonbanks that have recently converted to bank holding company and thrift holding company charters.

For a bank to qualify for TARP funding, the examiners are raising the bar on noncore funding. One bank reported a meeting with both the OCC and the Fed in which the OCC criticized, and the Fed defended, the bank's use of the discount window. Examiners are raising the bar on capital: 12 is the new 10 on risk-based capital. Borrowers are not in nearly as good shape as they were. The best credits are choosing not to borrow, and they are adjusting their plans so that they get through on their own cash flow. So the requests coming into the banks are more and more likely to be desperation requests—loans to cover operating losses or to meet payroll. Cracks are appearing in C&I loans. Some banks are exiting loans to entire industries, especially auto dealers, marine and construction trades, and retail. The performance of commercial real estate, especially retail properties, is deteriorating. Hospitality is falling off rapidly, and office buildings are expected to be next. Apartments are still okay, and all of this is

in addition to problems with construction loans. Lower mortgage rates are helping refinance, but it is not the best time of the year to judge what it is going to happen with purchase activity. There are still issues with jumbos, with down payments, and with requirements for very high credit scores.

As we have talked here, it occurs to me that perhaps the traditional tools of monetary policy are all directed at bank credit, and the strongest nontraditional tools that we have are addressed more to the securitization markets—the TALF and the purchase of GSEs. In this instance, most of the problems are not really caused by a cutback in bank lending but a complete collapse of the securitization markets, and so that is why these tools may be more necessary.

I asked questions also about the TARP capital and got different reactions. Several bankers said that they didn't need it, they were scared off by the ability of the Congress to change the terms at any time, and they had elected not to take it. Some took it because they thought they could leverage it into good business. Some took it as cheap insurance. Some took it to be in a position to acquire in what they see as the necessary weeding out of weaker players, and they think that should happen sooner rather than later. Several complained about delays in providing terms for smaller banks. Every single bank was adamant about the evils of mark-to-market accounting and other-than-temporary impairment. There is a big diversion between market losses and credit losses, so that leads to bankers who are afraid to buy securities because they are worried about further marks as the markets go down. But they are also unwilling to sell securities because they don't believe that the current market price adequately reflects the potential credit losses. There is some speculation that the mark-to-market losses will absorb all of the TARP capital that was just injected, and I think that is something we might want to

calculate as fourth-quarter reports come out. Then, the next big writedown is on servicing portfolios as lower rates spur refinancing activities. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. And thanks, everyone, for a very concise but also very informative roundtable. Why don't we take a coffee break until 11:30. Thank you.

[Coffee break]

CHAIRMAN BERNANKE. Why don't we reconvene, have a brief summary of our go-round, and then I will make just a few additional comments. The participants noted that the economic downturn has intensified sharply recently with significant downside risks to the outlook. Recessionary dynamics have set in, with interplays among real and financial variables. The economy is likely to contract through early next year, with considerable uncertainty about subsequent developments. Consumption, employment, and production indicators have weakened further. Financial conditions remain very strained, with improvement in some areas, but many the same or worse. The global economy has also slowed markedly.

Looking more specifically at different sectors, credit conditions continue to tighten, with credit lines not being renewed and banks, including smaller banks, hunkering down. Securitization markets are still largely dysfunctional. The overall deleveraging process continues to be a powerful drag on activity. Delinquencies are increasing, implying greater credit losses for banks and other lenders, with small businesses being among the borrowers facing tighter conditions. Banks continue to face intense balance sheet pressures and are reluctant to lend or make markets, and feedback effects from worsening credit quality to the balance sheets of financial institutions are evident.

Regarding the consumer, spending continues to contract, as households face ongoing pressures with respect to wealth, income, credit availability, and job security. Psychology is very

negative, and luxury and discretionary expenditures are being cut back. Labor market developments have been negative as well, with accelerating job losses and participation finally declining after remaining high for a period of time. The latest housing numbers suggest a continued contraction in that sector. The fall in mortgage rates has sparked some refinancing and purchase mortgage applications, but the longer-term impact on housing demand is not yet evident. Nonresidential construction is projected to fall significantly, reflecting poor fundamentals and tight credit. Federal fiscal policy will likely provide aid to states, including funds for infrastructure, but the size and the timing of the economic impact of that policy remain uncertain.

Manufacturing production continues to slow, along with new orders, capital spending, and business expectations; mining and drilling activities have been reacting to the decline in commodity prices, as has agricultural activity to some extent. Export demand has weakened with the sharp slowing in the global economy of recent months and the strengthening of the dollar since the summer. The sharp global slowdown, including emerging markets, will make recovery more difficult. Manufacturing surveys show that firms expect considerable near-term weakness and declining pricing power.

Finally, inflation looks set to decline significantly, reflecting falling commodity prices, rising slack, limited pricing power, and falling inflation expectations. Participants cited the risk that inflation could fall below desired levels. That is just a very quick summary. Any comments?

Let me make just a few additional comments, but I won't add, I think, a great deal of insight to our discussion. I will just note for the record here that the NBER has finally recognized that a recession began in December 2007. I said in the Christmas tree lighting

ceremony that they also recognized that Christmas was on December 25 last year. [Laughter] The Committee was a little more forward-thinking. We began cutting rates, of course, in September 2007 and did 100 basis points of cuts in January 2008.

Despite our efforts, this recession, in terms of duration and depth, is likely to be equal to or greater than the two largest previous postwar recessions, those in 1974-75 and 1981-82. There are a number of reasons that may be the case, and some of them were already discussed by the staff. The financial conditions are the most obvious difference between this recession and the earlier ones. A number of previous recessions have had financial headwinds of one type or another. For example, the current financial crisis and housing correction bear some family relationship to the stock market decline and the capital overhang in the 2001 recession. But overall, the financial aspects of this episode are, I think, much more serious than in previous cases. To cite two aspects: One, as Governor Warsh noted, there has been a big impact on household wealth. The flow of funds accounts show a decline in nominal wealth of about 11 percent in the last year or, as he said, a decline in real wealth of about 15 percent. This is going to lead to an increase in saving, which would be desirable in the longer term but in the short term is going to create dislocation. Two, this financial crisis has affected the intermediation of credit far more severely than any other episode since the 1930s. We have already seen a big impact on intermediary capital and bank activity. The deleveraging process is continuing. It is very intense. Again, reduced risk-taking, deleveraging, all of those things are not necessarily bad, but the adjustment process is a very difficult one.

A second reason that this recession could well be more severe than the previous ones has to do with the cyclical position of monetary policy, a fact also noted by the staff. The 1974-75 and 1981-82 recessions were basically generated by a tightening of monetary policy, and when

the Federal Reserve decided to let up, essentially conditions began to rebound. Obviously, in this case, other factors have driven the downturn. Monetary policy was proactive in trying to promote recovery. But given where we are today, at the zero lower bound, we are unable to ease policy in the way that we saw in those previous episodes. This suggests, as others have noted, the need for additional policy actions, either on our part or by the fiscal authorities, to get the economy moving again.

Finally, a third reason that I think this episode is particularly severe is the global nature of the downturn, which a number of people have also noted. It has always been said that, if the United States sneezes, the rest of the world catches cold. So there has always been a certain amount of coherence or synchronicity between U.S. downturns and those around the world. But the extent of the global downturn this time is really quite exceptional. It is striking that global growth over the past few years has been between 4 and 5 percent, and now the Greenbook is looking at a 1.6 percent decline for global activity in the fourth quarter and a decline of about 0.6 percent in the first quarter. That is quite a big difference between what we might think of as potential and actual growth.

So, as I said, there are a number of reasons to think that this is going to be a very severe episode and that we are far from being at the turning point. I won't go through the sectors. We have all discussed consumption, employment, housing, commercial real estate, and financial markets. These are all aspects of the downturn that continue to be exceptional and very worrisome as we look forward.

I will make just a couple of comments about inflation or disinflation. The forecast is for significant disinflation—perhaps not deflation, although deflation is easily within the standard errors of the forecast. A number of factors may affect this forecast or create risks on both sides.

Stephanie talked about structural unemployment perhaps being a factor that might make the effect of slack less than otherwise. On the other hand, there may be some evidence that the Phillips curve is steeper when unemployment is high—that is, recessions tend to have a greater impact on inflation than do small changes in growth. That only goes to say that there is a lot of uncertainty about exactly how far the inflation rate will fall. Although we might reach a technical deflation, I guess it is worth pointing out here that there is nothing special about zero. That is, from this point on, any further disinflation will have the effects of making a given nominal interest rate a higher real interest rate. It is making monetary policy de facto tighter and perhaps having debt deflation effects as the real value of debts and debt payments becomes greater as inflation falls. Because we are already at the zero lower bound, obviously that constraint is already in play. So I think we shouldn't focus too much or focus the public too much on the deflation line, on that zero number. It is not all that consequential. Rather, the disinflation process—and a very low rate of inflation—is a source of concern.

Just to summarize, I don't think my outlook differs very significantly from what I have heard around the table. I think the issues are what we do about it, and in that spirit, we should turn now to the policy round. So let me turn to Brian to introduce the monetary policy alternatives.

MR. MADIGAN.<sup>4</sup> Thank you, Mr. Chairman. I will be referring to the package labeled “Material for FOMC Briefing on Monetary Policy Alternatives.” This package includes the October policy statement, draft policy statements for this meeting, and associated draft directives to the Desk. Alternatives A and B have been revised somewhat relative to the versions that were distributed in the Bluebook, partly reflecting yesterday's discussion. In addition, as shown in bold in paragraph 1 of alternative A, it seemed appropriate in current circumstances to incorporate a sentence on financial conditions, as the Committee has done in its recent statements; the same sentence has also been included in alternative B. We have presented a total of four policy alternatives for your consideration. Given the unusual circumstances,

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<sup>4</sup> The materials used by Mr. Madigan are appended to this transcript (appendix 4).

the statements associated with all four alternatives depart to some degree from the statements that have typically been issued by the Committee in recent years.

Alternative A represents the sharpest departure. Rather than starting with the policy action, the statement would begin by describing the economic situation, noting that the economic outlook has weakened further. It goes on to say that inflation pressures have diminished quickly and that inflation could decline for a time below the rates that best foster economic growth and price stability. Reflecting what seemed to be a consensus yesterday, the sentence in brackets articulating a medium-term inflation objective has been dropped. We have also bracketed the clause indicating that inflation could drop for a time to very low levels, partly because some Committee members might not yet be convinced that such an outcome is a serious risk at this time and to avoid raising such concerns prematurely.

The third paragraph would indicate that the Committee judges that it is not useful to set a specific target for the funds rate. It would explain that judgment by noting that, as a result of the large volume of reserves provided through liquidity programs, the federal funds rate has already declined to very low levels. It would also note that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time, avoiding the use of the “near zero” phrase. The clause “weak economic conditions are likely to warrant” implies some conditionality, but the conditions under which rates would be raised are not spelled out.

The fourth paragraph would set out a general plan for implementing unconventional policy to support the functioning of financial markets and stimulate the economy. It reiterates that the Federal Reserve will be buying agency debt and mortgage-backed securities and indicates that those purchases could be ramped up if conditions warrant. It indicates further that the FOMC is evaluating the potential benefits of buying longer-term Treasuries. It also indicates that the Federal Reserve will be considering other ways of using its balance sheet to support credit markets and economic activity. We suggested dropping the word “actively” to avoid a suggestion that a new facility will be announced imminently.

Over recent months, the discount rate has moved in lockstep with the target federal funds rate, at a level  $\frac{1}{4}$  percentage point above that rate, and very recently the rates on required and excess reserves have been set essentially by formula equal to the target federal funds rate. Because a target federal funds rate would not be established under this alternative, those formulas could not be used. We have suggested that, under this alternative, the Board act to lower the discount rate 75 basis points, to  $\frac{1}{2}$  percent, and that the interest rates on required and excess reserve balances be reduced to  $\frac{1}{4}$  percent. The positive interest rates on reserves would maintain some upward pressure, albeit perhaps modest, on the federal funds rate, consistent with a view that there are some costs in terms of financial market performance of driving the funds rate literally to zero. The discount rate of  $\frac{1}{2}$  percent would maintain a fairly small penalty for borrowing at the window.

In certain substantive respects, alternative B, the next page, is similar to alternative A. Most important, federal funds would trade at about the same very low rates as in alternative A, partly because the discount and reserves interest rates, discussed in paragraph 5, would be set at the same levels as in alternative A. Also, the wording of the rationale section of the statement—paragraphs 2 and 3—is essentially identical to the corresponding paragraphs for alternative A. However, alternative B differs from alternative A by explicitly setting a target range for the federal funds rate of 0 to  $\frac{1}{4}$  percent, as shown in paragraph 1. We have restructured the introduction to the discussion of unconventional policy measures in paragraph 5 so that it is generally similar to the corresponding paragraph in alternative A. Also, the final sentence of alternative A, paragraph 4, has been substituted as the last sentence of alternative B, paragraph 5.

Both alternatives A and B would put the Committee clearly in the realm of unconventional policymaking going forward. The various policy interest rates would be reduced to very low levels, several unconventional policy tools will already have been implemented, and the statements would indicate clearly that further unconventional tools could be deployed. The Committee might choose either of these alternatives if members had an outlook similar to that of the Greenbook or if they were especially concerned about the downside risks. Both alternatives would constitute somewhat more vigorous policy action than market participants anticipate for this meeting, and accordingly it is possible that financial markets would respond favorably. On the other hand, there is some risk that confidence could be undermined if the main message that comes through is that the Federal Reserve is out of ammunition. As was noted yesterday, such alternatives place a premium on Fed communications that convincingly indicate that the Federal Reserve can still provide monetary stimulus.

Under alternative C, on the next page, the Committee would reduce the federal funds target rate 50 basis points today. The Committee might choose this option if it agreed that further monetary stimulus is warranted by the evolving economic outlook but was unsure that it would be necessary, or desirable, to reduce the target federal funds rate to around zero. The rationale for the action presented in paragraphs 2 and 3 would be fairly similar to those of alternatives A and B. Paragraph 4 notes the downside risks to the outlook and indicates that the Committee will use all available tools to promote its dual objectives, suggesting that the Committee will consider further reductions in the target federal funds rate and that further liquidity measures could be forthcoming. You could fine-tune the message regarding the federal funds rate by explicitly indicating that you are willing to or not willing to cut the funds rate further. Under this alternative, we have assumed that the discount rate would be lowered in line with the target federal funds rate to 75 basis points; the draft included in the Bluebook erroneously indicated that the rate would be lowered to 50 basis points. Because the FOMC would set a target rate under this alternative, we have assumed that the reserves interest rates would continue to be set via the existing formulas, so that those rates would move down to  $\frac{1}{2}$  percent absent further changes to the target funds rate. As Bill noted yesterday, although these interest rates on

reserves would provide some upward pressure on the funds rate, that pressure is likely to be more than offset by the large supply of reserves, and paragraph 7 notes that federal funds are likely to trade below  $\frac{1}{2}$  percent. Although this approach provides a straightforward expectation for the funds rate, it has an unappealing aspect in that the Committee would be changing its target while simultaneously admitting that the target will not be hit, implicitly raising the question of the meaning of the target. Nonetheless, this statement is likely consistent overall with market expectations, and a pronounced market reaction one way or the other seems unlikely.

Under alternative D, the Committee would keep the target federal funds rate at 1 percent. The rationale portion of the statement would acknowledge that the near-term outlook has deteriorated and that significant downside risks are present. However, the statement would note that the broad range of policy actions taken in recent months should help, over time, to improve credit conditions and support a return to moderate growth. The statement would recognize that the federal funds rate would likely average significantly below the target for some time, but it would not imply that a further reduction of the target rate is being contemplated. It thus suggests that the Committee would seek to return the actual federal funds rate to 1 percent over time. Overall, this statement would surprise market participants considerably, both in terms of the decision regarding the target funds rate and in suggesting that further monetary policy stimulus, through conventional or unconventional policy, is unlikely.

The final two pages of the package provide draft directives to the Desk that incorporate some changes relative to the versions that were included in the Bluebook. The directive for alternative A would provide some quantitative guidance for the Desk's open market operations while reserving some role for an assessment of evolving market conditions, specifically the language that "the Committee directs the Desk to purchase GSE debt and agency-guaranteed MBS, with the aim of providing support to the mortgage and housing markets. The timing and pace of these purchases should depend on conditions in the markets for such securities and on a broader assessment of conditions in primary mortgage markets and the housing sector. By the end of the second quarter of next year, the Desk is expected to purchase up to \$100 billion in housing-related GSE debt and up to \$500 billion in agency-guaranteed MBS." The directive would not specify a target range for the federal funds rate, while that for alternative B would. The directive for alternative A would state explicitly that the Committee has suspended setting a target for the federal funds rate and that it expects federal funds to trade at exceptionally low levels. The directive for B establishes the fed funds range of 0 to  $\frac{1}{4}$  percent. In line with one of the points raised yesterday, that the size and the composition of our entire balance sheet affect the Federal Reserve's monetary policy stance, the final sentence of the revised directives for alternatives A and B states an expectation that the SOMA Manager and the Committee's Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

The directive for alternative C, on the next page, is generally similar to that for alternative B. But it would acknowledge that federal funds are likely to trade below the ½ percent target rate set under this alternative. The directive for alternative D would include a similar recognition but with a target federal funds rate of 1 percent. In addition, this alternative would not provide specific guidance on open market purchases. Thank you, Mr. Chairman.

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

MR. LACKER. Thank you, Mr. Chairman. Brian, the first sentence in alternative B says, “The Federal Open Market Committee decided today to establish a target range for the federal funds rate of 0 to ¼ percent.” In the staff analysis of various options for implementing interest on excess reserves, I think option 4 was the one that is closest to the reality of what we are implementing now—just a straight interest rate on excess reserves and an overprovision of reserves to drive it down to the floor. In that analysis, the staff anticipated that it would be a floor, which it turned out not to be. But it anticipated that, with that floor in place, the effective funds rate would generally be above the floor, and it envisioned choosing a rate on excess reserves ¼ point below our target rate. So do you envision in this that we would have to take any measures if suddenly the downward forces on the effective rate would bring the funds rate above ¼? Or is this just under the supposition that it would take a while and that it is unlikely to get above ¼? You see, back in the early analysis there were forces that you believed would lead it above ¼, so I am wondering how you are thinking about it.

MR. MADIGAN. President Lacker, the forces that we were thinking would bring it above ¼ were largely a risk premium—the difference between federal funds, which have some amount of credit risk, and deposits at the Federal Reserve, which of course do not. I think we would not anticipate that we would need to do anything very different from what we have been doing—just continue to provide a very large amount of reserves, which is a byproduct of our

liquidity provisions. With the interest rate on balances set at  $\frac{1}{4}$  percent, that configuration of balances and rates would result in a federal funds rate somewhere in the range of 0 to  $\frac{1}{4}$ .

MR. LACKER. Okay. Well, the reason I ask is that I am a little hesitant to set an upper bound on a range without understanding what sort of mechanism we would have for making that credible. That is why I asked about that. Two more questions. One, the word “zero”—can you help me understand the thinking about why we should be a little averse to using that word?

MR. MADIGAN. Well, one reason might be that, if you gave some weight to the view that very low interest rates do have costs in financial markets and you wanted to preserve some rhetorical or substantive leeway, you would want to have a somewhat positive interest rate, to the degree that you could achieve one, but still a low level.

MR. LACKER. Okay. One final question. We, in the late 1970s, adopted a set of guidelines regarding agency debt and modified that in the late 1990s. I don’t have a copy with me. I think the latest adoption of that was January 2003, and I believe it is permanent. I think it is still in effect. I think it states that our purchases are not intended to channel funds to any specific sector. I am wondering about the staff’s interpretation of the consistency between our GSE debt and agency-guaranteed MBS purchases, and that guidance.

MR. MADIGAN. I do have that guideline here, and you are correct, President Lacker. The first paragraph of the guideline says that System open market operations in agency issues are an integral part of open market operations, designed to influence bank reserves, money market conditions, and monetary aggregates. The second paragraph says that open market operations in those issues are not designed to support individual sectors of the market or to channel funds into issues of particular agencies. As you remembered, in my briefing yesterday I did raise the question as to Committee members’ views of the allocation of funds to particular firms or

sectors. It is possible that the Committee may want to modify, suspend, or repeal this guideline at some point.

MR. LACKER. They do seem inconsistent, though, and I think it is something, Mr. Chairman, that we ought to consider.

CHAIRMAN BERNANKE. Noted. I think I am somewhat at fault here. I did consult with everyone on the Committee and discussed what we were going to do. I would say that, going forward, we should probably bring all such plans to the Committee.

MR. LACKER. Thanks. It would be good to have that public. It is a public document, is it not? Or it is not a public document yet. It is on the Committee records, right?

MR. MADIGAN. I believe it is public.

MR. LACKER. Okay. It would be nice to have that in conformance with what we are actually doing. Thank you, Mr. Chairman. I appreciate that.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. May I ask two questions, please? With regard to alternative A, I am curious, Brian, as to how you think the bankers would respond to that in terms of their pricing behavior and loans and prime. Second, our friend from the New York Desk, how do you think the markets might respond to alternative A—not overnight, by the way, which I couldn't care less about, but over the longer term.

MR. MADIGAN. On the former, just a guess, I would think that without any target federal funds rate—and given the well-known issues that we have been discussing about pressures on banks—it is possible that the prime rate would not be reduced by the full extent of the implicit reduction in the money market conditions that the FOMC would be targeting. But I don't really have a good sense as to what would happen quantitatively.

MR. DUDLEY. I think the market will be slightly confused, but I think they will figure it out quite quickly. They will scan the document and figure out, well, what does this really mean? They will be surprised by the magnitude of the interest rate reduction. As I said yesterday, most of the dealers are clustered around a 50 basis point reduction in the target.

MR. FISHER. Even though we are not stating a specific target, it would be implicit in the change in the level of the discount rate.

MR. DUDLEY. We are saying here that we are at exceptionally low levels of the funds rate for some time. I think they will understand that this is it and that the funds rate is going to be very, very low. Obviously, the next day you will probably observe a federal funds rate that is no more than a couple of basis points, would be my guess.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Just a follow-up on that. I am a little confused that we don't set a target but we are operating under an interest on reserves scheme by which we pay a deposit rate, which in fact we just lowered. Is there some kind of disconnect between what is in alternative A, paragraph 5—lowering the discount rate and the interest rates on reserves—and not noting a change in the target rate when, in fact, we have already established that the deposit rate is going to be the target rate. So I am confused. Maybe the markets will see through this, but I don't know. I am not quite sure I understand what is going on and how this would work, in terms of communications or interpretations.

MR. DUDLEY. I think the markets would look at this as saying it is a substantial rate cut. The funds rate has been trading soft to the interest rate on excess reserves by a considerable margin. The interest rate on excess reserves was cut considerably, so they will figure out that,

therefore, the funds rate is going to trade at an exceptionally low level. But you are right—it will not be quite as straightforward as putting it out there right up front.

MR. PLOSSER. I guess my trouble is that the Committee judged that it is not useful to set a specific target for the funds rate and yet this will be interpreted as that we reduced the target in effect.

CHAIRMAN BERNANKE. We can discuss this in the go-round. President Evans.

MR. EVANS. May I just ask Bill Dudley if he could describe how he anticipates his operations would differ between alternative A and alternative B? How would you do things differently?

MR. DUDLEY. I think we wouldn't do things differently to any meaningful degree.

CHAIRMAN BERNANKE. Other questions? I think it might be helpful to flag just a few things about which I would particularly appreciate the Committee's advice. The first is the issue that President Plosser was discussing, which is alternative A—not specifying a range or a target—or alternative B—specifying a range. I think that the argument for specifying a range is that it seems a little clearer. If you look at, for example, the Japanese experience, even when they were in quantitative easing, they still had a target for the call rate, as I understand it. There are some counter-arguments, which Governor Duke and others have raised, about the impact on banks and so on. That is question number 1. Question number 2—and this doesn't preclude other points, of course—is that in paragraph 3 of alternative B, for example, we have bracketed just for your reference the risk of inflation's declining below optimal levels. I would be interested to know your views on whether or not to include that bracketed phrase.

Third—again looking at alternative B—in paragraph 4 we have the conditional statement that “weak economic conditions are likely to warrant exceptionally low levels of the federal

funds rate.” A little informal polling suggested that people were sort of okay with this way of stating the conditionality. But if there are any concerns about that or, alternatively, if you would like to include a reference to disinflation as one of the conditions, that is just something I want to flag as a question.

A fourth and final point I want to flag—and President Yellen pointed this out to me—in paragraph 5 we have a sentence saying that “the Committee is also evaluating the potential benefits of purchasing longer-term Treasury securities.” I think to put that in there we should feel that sometime in the next few meetings there is a significant chance that we would in fact engage in some kind of a program. We don’t want to put it in there if it is a complete red herring.

So those are four points that I have, but of course, you may have other questions or issues that you want to raise. Governor Duke.

MS. DUKE. Mr. Chairman, just one response to President Lacker’s and President Plosser’s observations, which I think are related. If you set the rate that we are going to pay for interest on reserves the same as the target rate for fed funds and the market does repair itself and resume, then you would expect there to be some risk spread over the rate that we are paying on interest on reserves. So if we don’t set a target or we set the target something higher than the rate that we are paying, at least if the markets do start to resume, then the Desk isn’t in a position of then having to try to drive the rate back down again.

CHAIRMAN BERNANKE. Thank you. All right. Let’s begin the go-round. We’ll begin with President Rosengren.

MR. ROSENGREN. The bleak outlook calls for aggressive action. With the effective federal funds rate already well below our target, there is a logic to moving to the floor at this

meeting and redirecting attention to nontraditional policies. Thus, I am comfortable with alternative B and would reduce the interest rates on required and excess reserves to 25 basis points.

In terms of the questions that the Chairman just posed, I am comfortable specifying the range of 0 to  $\frac{1}{4}$  percent. I would actually keep the bracketed information. I am okay with the conditionality. I would remove the reference to the Treasury securities, and for the future I would certainly want to think about expanding the purchase of GSE and agency mortgage-backed securities beyond \$600 billion. Also I would support, at a future date, setting a target of 2 percent for the core PCE inflation rate.

CHAIRMAN BERNANKE. Thank you. President Bullard.

MR. BULLARD. Thank you, Mr. Chairman. I support alternative A, so let me just talk for a few minutes about what I like about it. I like the language “not useful to set a specific target for the federal funds rate” in alternative A because I think this will begin the process of getting the private sector to think in alternative terms about monetary policy. That would be similar to the moves made during the 1979-82 period. Let me just stress that I think the whole process is going to be very difficult. We have an entire generation of private-sector financial market participants who are conditioned to think only in terms of a federal funds rate target as the whole definition of what monetary policy is. I might remind the Committee—if it needs reminding, and it probably doesn’t—that it is a big country out there. When you start talking to others outside the particular participants in financial markets, the level of understanding of monetary policy is very limited. The subtleties get lost, and so it is going to take a lot of time and effort to convince everyone and to explain to everyone that we are switching to new policies. I expect, in fact, that it will probably be a three-year period that will be marked by controversy

over headlines that are of the form, “What is the Fed doing?”—much like the 1979-82 period, when there was continuing controversy and continuing efforts to explain.

I also like the paragraph that places emphasis on alternative policies. I would keep the bracketed information. I thought the conditionality was okay. I will say about the alternative policies, those policies have unknown impact, and so we don't want to be too detailed here because they may have to evolve in the future. I would take out the part about the longer-term Treasury securities.

I would put in the inflation target. I said before that I think it is an important point to be able to reassure and anchor expectations in this very fluid situation, which may rapidly unravel on us. This is a good opportunity to do this, and I would go ahead with that. I don't think it is that different from our longer-term projections, but it is much more direct and communicates much more clearly to markets that we have a medium-term inflation target.

On the question of what should be in the directive, I will say this: I see it as somewhat dangerous for this Committee and for the nation to say nothing about the level of reserves or the monetary base. It is true that it may not be inflationary now or in normal times, and it may not have been inflationary in Japan. But there are many examples around the world where money supplies got out of control and inflation was a very serious problem. It could be explosive in some parts of the world, especially if there were a large loss of confidence in the U.S. government or in the performance of this Committee. So I think we want to reassure the world that we are carefully monitoring that situation, that we have our eye on it. As several people have commented around here, a common refrain among business leaders we talk to is, “What the hell is going on? You know, your balance sheet is way up. Isn't that going to be inflationary?” And we are saying “no,” but I think we need to give continual reassurance that we are

monitoring that situation, we have it under control, and we are thinking about it. I also think, as President Stern said yesterday, that it would help signal our intention to keep inflation near target, other than simply promising to do so, which is just pure reliance on our credibility. You have something quantitative that you can point to. Obviously, it has to be done in a sensible way that allows us to bring in other programs and expand the balance sheet in other ways. I think it is just a matter of making a statement that we are keeping our eye on the whole situation.

As far as the other alternatives, let me disparage them for a minute. [Laughter] I don't know—we haven't gone all around the table here—but I don't want to be naming targets that we don't intend to hit. So I don't want to say that we have a target but we are not actually going to do it. If we are going to do that, then we have to change the language somehow that whatever the number that we are naming is not really a target. Okay? I would be very averse to doing anything like that.

In alternative B, the first sentence states a target range for the federal funds rate. My feeling about this is that effectively, in the big picture, no one will read past that first sentence. They will just say, "Oh, yes, the Fed lowered interest rates." The idea that we are switching to some new regime or that markets have to start thinking in alternative ways about monetary policy is going to be lost. If you wanted to put a more aggressive spin on this, this is the do-nothing option. The effective federal funds rate is near zero anyway, so this is just saying, "Well, this is business as usual. We are going to sit on our hands. We are constrained by the zero bound, and we are not going to really change anything." So I see it as important to get the markets off this, and I see alternative A as one way to do that. But maybe you all will convince me otherwise. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Given the dismal state of the economy, and with the funds rate averaging around  $\frac{1}{8}$  percent anyway, I don't see any reason to wait to bring the fed funds rate down to effectively zero. I agree with the staff analysis that any dislocation of the money funds is likely to be minor. My board put in for a 75 basis point cut in the discount rate. When I looked over at my small bankers, I was afraid one of them was going to throw a shoe at me. [Laughter] I escaped that.

CHAIRMAN BERNANKE. That is going around. [Laughter]

MR. LACKER. So I support alternative A. I think it makes sense to deemphasize the funds rate target. For reasons that were illuminated by Brian earlier and reasons that Governor Duke alluded to as well, I don't think a target range is useful. We don't want to discourage hope among our community bankers that we might get above  $\frac{1}{4}$  percent should conditions normalize to some degree. We do set an interest rate on excess reserve balances, or more precisely, the Committee's reduction in the federal funds rate target reduces the rate on excess reserves, given the Board's adopted formula for setting the excess reserves rate. We have a similar sort of governance disconnect between the discount rate approval decisions of the Board of Governors and the federal funds rate decisions taken by the Federal Open Market Committee. We have managed to coordinate those very effectively, with cohesion and with consensus. It seems to me to make sense to take the same approach to the excess reserves rate.

I like the language in alternative A, paragraph 3, where we abandon the target and indicate that the funds rate is likely to be near zero for a while. The conditionality, the way it is expressed there or in B4, is fine with me. I like the idea of shifting attention to the interest rate on reserves by including the statement in the related actions sentence of A5; that further cements the governance coordination that we have in mind there.

I think it makes eminent sense to be very explicit very soon about our numerical objective for inflation. Monetary policy at the zero bound is all about discouraging expectations of deflation. If we haven't tried first announcing an explicit objective for inflation, we don't have any excuses if we fail to prevent a fall into a deflationary equilibrium. But I am sympathetic to the notion that it might not be best to slip it in the statement in the dead of night without any fanfare. It might encourage the view that it is a temporary expedient and that we might abandon this language in some future statement, should we find it convenient. I think it would be better to do this and issue a separate statement very clearly articulating that the Committee has adopted a numerical inflation objective, here is what it means, here is how we interpret it, and here is why we do it. Perhaps January would be the right time to do that, and we could, between now and then, lay the groundwork for a clearer and more forceful communication. I think it is likely to have a bigger effect on financial market participants and the public should we do so. Without that statement about an objective, the sentence that precedes it—specifically the phrase that is in brackets in A2—is a little scary. So I would prefer to leave that bracketed thing out if we are not going to include the inflation objective.

The fourth paragraph in alternative A and the corresponding paragraphs in B and C discuss how we are going to conduct monetary policy while the funds rate is at zero. I think they are intended to signal a shift toward quantitative measures, but I found the language ambiguous and confusing. None says anything about the monetary base. None says anything about the size of our balance sheet. In other words, they don't indicate that the credit programs wouldn't be sterilized. I think the phrase "use our balance sheet" is ambiguous. It doesn't necessarily mean expand the size; it could mean put some stuff on it. So I would like to see us find a way to

improve the clarity of the language in paragraph 4 regarding the quantitative measures that I think it is intended to communicate.

That paragraph also mentions two programs: the agency debt purchases, which we talked about earlier—let me set that aside—and the TALF, which the Committee has not been asked to formally consider and approve. Now, I can appreciate the strict constructionist governance view of who gets to approve them; it is not important that we vote on them. But I have been thinking about this in terms of the ideal—the vision you portrayed and described for us yesterday of a cohesive consensus-building decisionmaking process. I compared the TALF and what the Committee has heard about it. Contrast that with the deliberations we gave to the extension of foreign exchange swap lines to emerging-market countries. There were fairly extensive briefing memorandums provided to the Committee, and there was a fairly lengthy discussion of that step. In contrast, we were basically informed about the TALF rather than consulted in any meaningful sense.

Part of the problem here is that this paragraph conflates the use of our balance sheet with expansions of the base, and these are two distinct policy actions. In the current circumstance, unsterilized lending does increase the base. But we have been doing these programs since before that was true, and the distinction doesn't come through clearly in the language here. There is a tension here because a couple of different plausible theories are floating around about how this stuff affects the economy and our objectives and how things are going to work at the zero bound. I am not sure that we are going to settle on a single theory. In fact, I am sure that we are not going to settle on a single theory. But we should strive, in the interest of consensus, for a statement that encompasses a range of plausible views. We have done that in the past in

finessing things like different views of the Phillips curve and the like, and I would urge us to try to do that here rather than take a monolithic approach.

Finally, let me say something about the directive. The new drafts of A, B, and C add a sentence, the operative words of which are “keep the Committee informed,” and it is that the Secretary and the System Open Market Account Manager would keep the Committee informed. This is somewhat short of the language you used yesterday, which admittedly might not be appropriate for the directive. But I wrote the language down, and it is that the Board would bring programs to the FOMC for review and discussion. I like the sentence that is added in the sense that it is a step in the right direction toward your vision of a collaborative body seeking consensus on these issues. But I am afraid that this language won’t do much to dispel questions that have arisen in the press about our governance cohesion and decisionmaking. So I personally would prefer to go as far as we could in that direction. Thank you very much, Mr. Chairman.

CHAIRMAN BERNANKE. Jeff, I just want to make a couple of comments. A very small one is that, in an early draft, instead of saying “entail the use of the Federal Reserve’s balance sheet” we had “entail increasing the size of the Federal Reserve’s balance sheet.” We thought that might not be appropriate because things go on and off.

MR. LACKER. Other things pull it down.

CHAIRMAN BERNANKE. Right. We were probably going to do that as a trend, maybe not day to day, but it has some of the flavor of increasing the base. So that is one just observation. On the TALF, we have added a presentation today from Bill Dudley and Pat Parkinson.

MR. LACKER. Excellent. Thank you.

CHAIRMAN BERNANKE. Finally, on the directive, there is a bit of a difference, which is that I do think we need to bring new programs, et cetera, for your information, as I said before. But this is actually a stronger statement in that it also means that we should report to you on the ongoing implications of existing programs for the base and for the balance sheet. So there is a bit of a difference in those two concepts.

MR. LACKER. Thank you. Mr. Chairman, I do like the “increase” statement, and I think we could easily explain that we are looking at a partial differential effect.

CHAIRMAN BERNANKE. All right. One possibility is “entail increasing the size.” There is some risk there, but I think that would be the general trend that we are considering. Others can comment.

MR. DUDLEY. I think the real issue is what happens to the CPFF, what happens to the swap programs, and the take-up of the TAF. Those are the three big elements, and they conceivably could run down in the first quarter.

CHAIRMAN BERNANKE. You could say “increasing over time the size” or something like that.

MR. DUDLEY. Or “likely to.”

CHAIRMAN BERNANKE. Yes. That was the reason we switched.

MR. LACKER. The statement doesn’t have to stand for the whole first quarter, does it?

MR. DUDLEY. No. But I think the issue is that, because we have open facilities, we just can’t guarantee what their take-up is going to be relative to what they are today. The swap lines are roughly \$600 billion; those could come down.

MR. LACKER. Well, each facility makes the balance sheet bigger than it otherwise would be.

MR. ROSENGREN. A lot of these could go down quite substantially if conditions improve, and we wouldn't control that.

CHAIRMAN BERNANKE. Right. That was the concern we had—that it wouldn't necessarily be a monotonic increase, that it could have ups and downs depending on usage and so on.

MR. LACKER. Well, I have in mind here the confusion that some around this table have reported hearing from the public about what we are doing with our balance sheet. I think acknowledging that it is expanding in size would be an important feature.

CHAIRMAN BERNANKE. All right. Well, we can hear from others about that as well. President Evans.

MR. EVANS. Thank you, Mr. Chairman. I certainly agree that more accommodation is needed. We need to take actions to provide, as best we can, the quantitative easing equivalent of the optimal control path as discussed in the briefing. I am not sure ultimately how feasible that will be, but it is a good goal for us over the next few months.

Now, in terms of the differences between alternative A and alternative B, as I understood Bill Dudley, there is no operational difference in these two options. It really comes down to how we want to communicate with ourselves and also the public. I tend to favor alternative B, certainly for now, and maybe alternative A later. After all, if the funds rate is going to go to zero in reality, then alternative A might be the right language. But we will have time to see that. This is a reasonable sequencing. The action today that we are dropping the funds rate target range 75 to 100 basis points is big, and certainly that will be the first thing that they see in the first line. I think they will continue reading. The language on the conditionality about the funds rate being exceptionally low is certainly okay today. The language says, "The Committee anticipates that

weak economic conditions are likely to warrant.” I guess there is some question as to whether or not we should include the dual mandate here—that disinflationary forces are also part of that. I could go with the consensus there, but I would just raise that as a question.

Regarding the bracketed risk that inflation could decline for a time below optimal rates—the rates that we think are best—back in 2003 this is what got a tremendous amount of attention. That is another reason that, as people read further, it could have a very large effect. It seems to be accurate. One way to deal with that would be to allow the minutes to capture that discussion, at least this time, and perhaps to put it in next time. It depends on the accumulation of how many of these large noteworthy developments we want in the statement here. I would be even more comfortable if that type of statement were accompanied by a context such as that we would be seeking conditions of inflation being around 2 percent. I realize that this may not be the ideal time to include that without a more extended discussion. But I would be okay with the bracketed information, if that is the consensus.

I think we should probably omit the Treasury purchases if we don’t think that we are going to do that by March. Certainly, omitting it today is low cost. Given all the information, it is probably overload.

I am okay with the language in the directive. Accompanying the language is all of the discussion about the collaboration that we have between the Board and the Committee generally, and so I have a very good feeling about that. I think that it will tend to evolve as this goes on, whether or not it is maximum thresholds or just changing the composition of all of this. So those are my preferences. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Like the others who have spoken before me, I think this situation is very serious. We need to do all we can, and I think we need to recognize the reality of where we are. So either alternative A or alternative B does that to a significant extent. I guess I have a slight preference for alternative A as a better recognition that we are not really controlling the federal funds rate in here. We have these other balance sheet things going on, and to me alternative B has a little of the flavor of drawing your target around the hole we have already made in the barn door, or whatever, and pretending that you have some control that you don't really have. So I think A is better. President Bullard made a very good point that A tends to refocus attention on these alternative policies that we all agree will be the focus of our attention going forward. But I could live with either A or B.

In terms of some of the issues you raised—so going down alternative A—in paragraph 2, the bracketed language, here I agree with President Lacker. I think my slight preference would be to wait until January to do this. Whether or not we have an explicit inflation target as we come out of the January meeting, we can debate in January. We will, I hope, have at least these long-run projections, and this bracketed language can be explained in terms of those long-run projections. Right now, it kind of sits out there. We haven't yet explained what we think the rates are that best foster economic growth and price stability in the longer term. By the end of the January meeting, we can do that. So I think I would wait for that.

I think the conditional language in the third paragraph is helpful, and I would favor keeping it in. It is appropriately conditioned on weak economic conditions. If other people wanted to add “the disinflationary forces,” which I think come primarily from the weak economic conditions, that would be okay with me, too. But I am fine with this.

In the first sentence of paragraph 4—this is a small point—I would take out the “to continue”: “The focus of policy going forward will be to support the functioning . . .” When I first read the “to continue,” it sounded as though we are just going to continue what we are doing now. So I would take that out, but that is a small point. On the discussion about whether we should put the size in, I am a little worried about putting it in because the balance sheet has grown so rapidly. If it came down because year-end pressures abated and because the swaps with all of those foreign central banks might tend to come down after the end of the year, I don’t think that the Committee would necessarily want Bill to be replacing every dollar of Eurodollar swaps that came down with something else. I think we are talking about a long-run trend in the base, and we need to be careful about not trying to leave the impression that in every intermeeting period we would expect the base to increase, especially when we don’t control that size. So I would be a little cautious about that. Certainly, if we did include “increase the size of the balance sheet,” I also would say something about the composition. In my view, it is actually the composition more than the size that is going to influence relative asset prices, even though I do recognize that over very long periods, if we keep the base from declining, it would be hard to have prices decline. But I am not sure that is really an effective way to deal with expectations in the short or intermediate run.

I would include the purchases of longer-term Treasury securities. Among other things, I think we ought to do it sometime in the next few months. The fact that you have already talked about it, if we omit it—I guess I disagree with President Evans here—I don’t think that will be low cost. We have a series of things we are doing, and that is not part of it. I think there could be an adverse market reaction. Going back to the base for a second, I agree that we need to do a better job of explaining, as I said yesterday, what this new framework is, how the increase in

reserves and the base fits into it—if we can come to some conclusion on that—and why under these circumstances a very large increase in the base isn't inflationary and how that comes about. We need to do a much better job of explaining these kinds of things. But, again, I would be hesitant to put an explicit target in terms of the level of reserves or the base in there because I don't really understand the channels through which they influence prices or activity in the short and intermediate terms.

Finally, on bank profits and the effects there, ordinarily I wouldn't worry about bank profits. It is just a transfer between the owners of banks and households and businesses, and quite frankly, transferring some income to households and businesses seems like a pretty good idea most of the time in these circumstances. I agree that it is more ambiguous than usual, given the worries about the financial sector. Still, we are doing a lot for the banks. We are giving them capital. We are guaranteeing their liabilities—we, the government, that is. This will reduce the rates at which they borrow from the discount window and from each other, so they are getting something there. I think banks are going to need to figure out how to operate at these really low interest rates, so I wouldn't let my concern about bank profits stop me from doing either alternative A or alternative B. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you.

MR. LACKER. Mr. Chairman?

CHAIRMAN BERNANKE. Yes.

MR. LACKER. Just a thought in response to Governor Kohn's comments: Would the phrase "add to" do a better job than "increase the size of" in conveying the sense that these programs are going to make the balance sheet bigger than it otherwise would be, rather than lead to an absolute increase in the size of the balance sheet?

MR. KOHN. I am not sure those words help me, actually. “Add to” sounds the same as “increase” to me. I have missed the subtlety here.

MR. LACKER. Other things held constant.

MR. KOHN. *Ceteris paribus*. We could put that in there.

CHAIRMAN BERNANKE. It is already Greek anyway. [Laughter] President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. My preference is to move in this meeting to the consensus lower-bound range for the funds target, and I prefer the range of 0 to 25. So I believe either alternative A or alternative B will work as serviceable options, and I can live with either one. But I actually lean toward alternative B. I think it is the clearest, and with the inclusion of the language related to deflation, it is also internally more consistent. In particular, my preference is to indicate that the FOMC intends to keep the policy rate low until economic and credit conditions improve, and I think it is appropriate to emphasize that our policies will be calibrated based on longer-term inflation objectives.

As I said yesterday, I am thinking that the conditionality language could be stronger. Specifically, I have in mind something along the lines of a statement that reads that “the Committee intends to maintain this range for the federal funds rate until such time that it judges conditions are present for material and sustained improvements in financial market functioning and economic growth, and the Committee believes that this policy course is consistent with its medium-term price stability objective.” I think that kind of language could fit at the beginning of paragraph 4, around that area, in alternative B. I think that is stronger than the implicit conditionality that is already in the statement. In my rounds of contacts before the meeting, one conversation did resonate with me. It was a call from a financial market participant for hearing

what the plan is and what the strategy is and affirming that there is a plan. I think stronger conditionality language would respond to that need in the marketplace.

As regards the questions, I think I have already covered some of them. I would prefer the specifying of a range in alternative B. I would lean toward including the language “and sees some risk that inflation could decline” because it ties in with the “all available tools” language at the beginning of paragraph 4. In other words, I think, if we include that language in paragraph 3, we are setting up a risk and the “employ all available tools” responds strongly to that risk.

Regarding the inclusion of the long-term Treasury securities, I am persuaded by Governor Kohn’s comment that we should include it. It is consistent with whatever public discussion we have had to date, including your speech of two weeks ago. So that is all. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I think, at the end of the day, alternatives A and B really amount to the same thing in terms of policy. So I could live with either, but on communication grounds, my own strong preference would be for B. I think it is important at this juncture for the FOMC to state very clearly what it wants the federal funds rate to be, that we want it to remain close to zero, and I think we best do that by specifying explicitly a rate or, as it is, a range. Both A and B eliminate the gap we have had between the target and the reality of where the funds rate is actually trading, but B eliminates that gap by embracing the current reality as desirable.

In contrast, it seems to me that A is saying that the Committee is all but helpless to affect the funds rate, so, after all, it would be a charade to set a target. Then it kind of acknowledges, well, but, you know, the funds rate trading near zero is really not such a bad thing, given the

weakness in the economy. I think we have greater command over the funds rate's destiny than alternative A suggests. If the Board and the FOMC really wanted to push the effective funds rate up above zero, say to 50 or to 100 basis points, the Board could choose to raise the rates paid on reserves and the discount rate, and we could get it up, even though we have all of this enormous quantity of excess reserves and even though interest on reserves isn't working in quite the way we expected. I agree that it would be a bit odd to be setting the interest on reserves and discount rates above our target for the federal funds rate. But it seems to me it could be done, and we are not powerless to accomplish it. So I don't like the suggestion that we are just helpless to move the funds rate. I think we should say that we don't want to move the funds rate up. I don't want it to trade above the 0 to 25 basis point errand. I certainly don't want that. I think the forecast is grim. I think we should go as low as we can as fast as we can without harming the functioning of money markets, so keeping the funds rate trading in the 0 to 25 range is desirable. If it were to be the case, following President Lacker's earlier question, that we suddenly saw the interest on reserves floor working better and fed funds started trading above 25—the funds rate could, for example, move up to 50 or so—I would hope that the Board would actually lower the interest rate paid on reserves to hold the funds rate in the 0 to 25 range. So I think we should go down and do it decisively in one step today.

On the other matters, in alternative B, paragraph 3, I favor including the bracketed language suggesting that we expect and are not happy to see inflation declining below levels we consider consistent with price stability. I agree with President Evans on the merits of doing that. I like the forward-looking language from A that has been added in bold to B concerning the odds that we will keep the funds rate low for some time. On the Treasuries, I am worried about making an announcement or giving a hint that we are not going to follow through on them pretty

quickly. I am personally in favor of and support buying longer-term Treasuries, and I haven't heard a lot of opposition to it. If we really are going to do it and do it pretty soon, I have no problem with including language to that effect. But I don't think we should throw a hint out there unless we intend to follow through. With respect to the wording of the directive, I am happy with it. With respect to the issue about the monetary base and increasing the size of our balance sheet, I would endorse Governor Kohn's remarks on that topic.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. If we were still working with the framework of targeting the fed funds rate, I would prefer D, and I would accept C, and I would vote accordingly. But I think what I've heard in the past two days is that we have really abandoned that framework, and this is kind of a ratification of that. I think that our framework now is actually in A and B in the statement that we are going to "expand its purchases . . . as conditions warrant." If that's the case, then going with A, in which you don't set a fed funds rate or talk about it, is probably preferred.

I also think that we're now in a credit policy type of framework, and it bothers me. I have a lot of sympathy for what Presidents Lacker and Bullard said. I would prefer, rather than a statement that says "as conditions warrant," that we have some kind of a monetary base criterion for the future. This is something that we ought to think about. At the same time, I do not think that we should have inflation below optimal in this statement. I don't think we're there, and, at this point, I think it should not be hinted at.

I think that "purchasing longer-term Treasury securities" goes with the conditionality statement anyway. We'll do what it takes, and if it takes purchasing longer-term Treasuries, that's it. That is what we have unless we go back and look at a new framework that we need to get out

and talk about with the public, and I hope that as our meetings and our discussions progress, we begin to focus on that. Thank you.

CHAIRMAN BERNANKE. Again, as I said yesterday, this is a work in progress.

MR. HOENIG. I agree.

CHAIRMAN BERNANKE. We'll keep working on it. I didn't quite get your proposal. Do you propose leaving in the sentence about Treasuries at this meeting?

MR. HOENIG. If we're going to have statements that say we're going to purchase mortgage-backed securities as conditions warrant, I don't think "purchasing longer-term Treasury securities" is a much different step from that, so we can leave it in.

CHAIRMAN BERNANKE. Okay. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Obviously, for us to counteract the powerful forces that are weakening our economy and financial markets, we should provide maximum monetary policy stimulus as quickly as possible, and conducting monetary policy on the basis of a fed funds rate target is no longer the best strategy. I do think it is time and it would be helpful to begin focusing the public's attention on the unconventional approach to monetary policy, and I think alternative A does a better job of doing that.

What I like about alternative A is its straightforward characterization of the policy situation and how we plan to respond to it. I support leaving in the language that is bracketed in alternative A, paragraph 2, about the risk that inflation could decline for some time below rates that best foster economic growth and price stability. The reason I say that is that we have been using the language that the Committee expects inflation to moderate for some time now, and given the discussion, I think we expect that situation to be getting worse. So I would support leaving that in. I would also leave in paragraph 3 the more forward-looking language about keeping the low level of the fed

funds rate for some time. I also would keep in the language on the potential benefits of purchasing longer-term Treasury securities. I assume that the minutes that are released in three weeks are going to say that we discussed it and that we will be evaluating it. So I would just leave it in. Also, given the dire economic outlook that we are talking about and the aggressive response that we think monetary policy should take, I think just saying merely that we stand ready to expand the purchase of agency debt and mortgage-backed securities isn't aggressive enough. I do realize that there are a lot of important questions that are left unanswered, such as determining the mix of assets to purchase and how to know when enough is enough, and then how to shrink our balance sheet when the time comes. But I do think that adopting alternative A is taking a big step in the direction of giving the public some indication of what we plan to do.

Finally, I know you just said that we will come up with some language and some framework around what we are doing. But as discussed in yesterday's conversation, having some talking points even in the near term so that we are consistent in our language on what we are doing would be helpful. At a time when there is a lot of confusion out there and markets are as fragile as they are, having us all talk about this in the same way would be helpful. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, as several people have observed—and I agree—I don't think there's any significant policy difference between A and B. That's certainly where I am. From a communication point of view, I have a mild preference for B. I think it's a little clearer on the margin and would be helpful in that regard. So I would work off B as to some of the issues and suggestions that have been raised.

With regard to the first issue, I would not include the information in brackets in paragraph 3 at this point. I think Governor Kohn made a good point that we're likely to be much better

positioned to do that in January in conjunction with the SEP and the longer-term projections. Let me be clear. I am in favor of inflation targeting, but I think exactly how and when we get to that is important. So I wouldn't want to do that simply in a casual way and do it too rapidly.

As I look at paragraph 3, I have a couple of other questions. The first sentence says that “inflationary pressures have diminished quickly,” which is certainly true, but I think it may be more important that they have diminished appreciably. So I would just make that point. I might also say, rather than “the Committee expects inflation to moderate in coming quarters,” which I think is probably true, that you might just say “the Committee expects modest inflation in coming quarters.” The reason I'm putting it that way is that I'm trying to get out of this point precisely about whether it is or isn't going to run below what we think might be consistent with the dual objectives.

I think the conditionality in paragraph 4 is fine. If there's a good way to strengthen it, doing so would also be fine with me. But trying to modify these things on the fly is always difficult. Finally, I would include the thought about purchasing longer-term Treasuries. I think we should, and because I think we should, I think we should say that. So I guess that covers the topics I want to cover.

CHAIRMAN BERNANKE. Thank you. Maybe I should ask Bill. Do you see any purely operational issues in the next few months if we decide to purchase longer-term Treasuries?

MR. DUDLEY. We can do it, but we're under a strain. As long as we don't start until sometime in January, I think we could manage, as long as you don't ask us to do it every day.

CHAIRMAN BERNANKE. We won't.

MR. KROZNER. Every other day?

MR. DUDLEY. How about once every couple of weeks?

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. These are, indeed, troubling times, and I think in troubling times it's even more important that we be as transparent and clear as possible. I think it's time that we publicly convey that we have entered a new monetary policy regime. To do otherwise perpetuates the view that we are no longer in control of monetary policy rather than that we have opted to implement policy through a different means, particularly our balance sheet.

There's ample room for judgment here and disagreement, but, Mr. Chairman, with all due respect, I'm deeply troubled by elements of the steps that we are taking today. In effect, I interpret our proposed actions as substituting credit-allocation policies for monetary policies. Both the expansion of our balance sheet and the fed funds rate are now determined or will be now determined by decisions about which markets or firms are deemed worthy of our intervention and support and some assessment of how much money we want to throw at them. I think we all agree that we are looking for the best policies. I think that it's also true that best policies are based on clearly articulated goals and objectives and in credible and systematic actions to achieve those goals and objectives, and they can also be credibly communicated to the public. I feel that our approach to credit policy comes up lacking in each of these dimensions. Our goal may be to prevent systemic risk, but we haven't clearly defined what that is or the criteria that we're using to decide whom to lend to and when to lend to them. It's very important for both clarity and transparency that we rectify this deficiency, or we may continue to create moral hazard and to see market after market after market seek our help.

The message from the literature we discussed yesterday is that near the zero bound our credibility and our commitment to generate inflation and prevent expectations of deflation to develop are paramount. My reading of the proposed language is that it does little to signal that commitment. Indeed, it seems to suggest that our primary objectives are and will continue to be

credit interventions. Confusing our monetary policy objectives with our credit policies is not the kind of message that I'm comfortable with. I think we need to be careful not to convey to the market that monetary policy has become ineffective, and I don't think anyone at this table wishes to do that.

President Lacker articulated the importance in the current environment of keeping inflation expectations well anchored, and measures of the base—or if you would rather, look at the asset side of the balance sheet, either way they're both measuring the balance sheet—are a means of anchoring those expectations. I don't think the language of the directive or the statement is clear enough in addressing either the effectiveness of monetary policy or the credible commitment to avoid deflation or even to maintain inflation near our target, which is clearly not deflation. I'm not quite as fearful of deflation as President Bullard or some others, but I think we need to be mindful and reinforce our commitment to low but stable inflation.

On the governance side, I continue to believe that the FOMC is the appropriate body for making monetary policy decisions and that replacing monetary policy with credit policies that are unconstrained by this Committee is to violate both good governance and the spirit of the operating understanding of the FOMC. Yesterday and in my memo to the Committee earlier this week, I argued that the directive and the statement should clearly state that we are in a new regime and should articulate how that new regime will operate going forward. My interpretation is that the proposed language, particularly alternative A, does help indicate that we are moving to a new regime. That's important, and therefore, I lean in that direction. But that language fails to articulate how that new regime will operate, except to say that the Board of Governors will continue credit market interventions. It says nothing about the terms and strategies that we'll employ to do so. The implicit message is—and I think the market will clearly interpret it this way—that the FOMC has

ceded monetary policy decisions to the Board of Governors, and I think that will be damaging. Such a step, in my view, is not good policy, nor is it good governance, and it may have political ramifications as well. Once the Committee sets the precedent that the Board of Governors can assume sole responsibility for monetary policy, we run the risk of losing the strength and the diversity of views that the System has always brought.

My sense is that this Committee's setting some kind of cap on the size of the balance sheet was an effort to clarify the role of monetary policy in contrast to credit policy. I think the reaction I heard yesterday around the table was a litany of reasons why setting base growth targets is not appropriate. While that might be an interesting debate to have, that was not the point I was proposing. I was requesting that we have a debt ceiling, if you will, and that the FOMC would review and adjust that debt ceiling as it deemed appropriate—not targets for balance sheets per se. Such a debt ceiling would not prevent the Board of Governors from managing the asset side of the balance sheet via 13(3) lending. Only when unsterilized lending exceeded the debt ceiling might formal approval be required from the FOMC. Mr. Chairman, my discomfort is not a matter simply of good governance. It is more fundamentally about the lack of clarity, discipline, and transparency that the strategy is offering, and I have deep concerns.

I'd like to offer a couple of suggestions for the Committee to consider about language, and I'm working off alternative A, which I think is probably the working hypothesis here. So to answer your questions, Mr. Chairman, I have been and continue to be in favor of an explicit inflation target. Most of you are aware of that. I am sympathetic to the view, as I think President Lacker said, that slipping it in in the dead of night is probably not the right way to go about it. I would add that I do not like the bracketed phrase regarding the Committee's seeing some risk of inflation coming in too low. As President Lacker suggested, it might cause fear in the marketplace. But I do think we

could change the second bracketed statement, which was struck out: “In support of its dual mandate, the Committee will seek . . . a rate of inflation . . . of about 2 percent.” I think we could change that and heighten the importance of inflation to us and our dual mandate by saying something to the effect of “in support of its dual mandate, the Committee will seek a low and stable inflation rate over the intermediate term.” That would be short of specifying an inflation target but would reinforce the notion that we are still committed to achieving a low but stable inflation rate.

My biggest problem is with paragraph 4, which I think could be simplified greatly. I would like to emphasize that monetary policy remains in the purview of the FOMC and that we have entered a new regime. So I would propose, just for the sake of getting it on the table, that paragraph 4 be simplified to say that “the focus of the FOMC’s monetary policy going forward will be to continue to support the dual mandate and the functioning of a financial market to stimulate the economy through open market operations and other measures that entail the use of the Federal Reserve’s balance sheet.” Then I would say, “Today the FOMC affirms the expansion of the Fed’s balance sheet up to \$3 trillion and will periodically review and adjust that in the pursuit of our dual mandate.” Repeating the litany of credit-market interventions that we have engaged in seems just repeating what we’ve already done. I’m not sure that serves much purpose in the context of monetary policy making at this point. I’m not opposed to buying GSEs. I’m not opposed to buying longer-term Treasuries. I think we need to modify Brian Madigan’s statement about the conditions under which we should purchase GSEs so that we are being internally consistent, but I don’t have any objection to it.

So I think we could be clearer. We could be less confusing in our policies by emphasizing again our commitment to keep inflation stable and at a positive level and clearly indicating that quantities do matter and that this Committee is responsible for those quantities and will interact with

the Board of Governors and our credit policies to see that we can achieve the goals that we all decide on. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, before I get started, I do think that President Plosser has raised good issues on the governance matter. I hope that we will continue to discuss this, bearing in mind that there may be changes in the composition of the governors with a new President and given the faith that we built up with the existing governors, so that we have to get at least our lines of understanding clear as we go through time. As to the alternatives that we face, the problem with the economy isn't the interbank lending rate or even the riskless rate. The problem with the economy and with the financial markets is that intermediation has broken down. I think our actions should forcefully be directed toward the clearing of blockages in the financial plumbing and not just fiddling with the faucet. It's the availability and distribution of credit that is problematic.

In that sense I like alternative A. In fact, President Stern, I like its ambiguity, and I'll tell you why. I am quite worried that stating zero to 25 basis points will bring down upon us the wrath of bankers. I do think it's important that community banks be profitable and that they be healthy. First Vice President Cumming pointed this out in her comments, and to me this alternative gives us substantial wiggle room, as it were, in its ambiguity. Vice Chairman Kohn pointed out that paragraph 5 is good for the bankers. Without stating a specific target fed funds rate, it allows them to price their loans according to how they see fit. That appears to be taking place anyway. There is a separation between the fed funds rate and the prime loan rate. So unless I'm missing something, bankers should positively interpret both paragraph 1 and paragraph 5 in terms of their operating leeway.

I would suggest that this is an important step forward in making clear the way we're going to operate henceforth. It does indicate a regime change, and as President Bullard pointed out, I think we have to be forceful in doing so. I could diddle with the language, but to be even more forceful I would transpose paragraph 4 and paragraph 3. That is, the first two paragraphs strike me as fine. At this juncture I would not put in an inflation target because I don't think we're prepared for it as a Committee. I'm comfortable leaving in paragraph 2 that we see some risk that inflation could decline below optimal rates for a time. After all, we just got the number that makes that very clear—minus 1.7 on the headline rate. But then I would go immediately into what our focus is going to be. I rather like President Plosser's one edit to make clear that it's the focus of the FOMC's policy. After we have laid that clear—and if, indeed, just parenthetically we are going to make some Treasury purchases, we should include that in there; if we are not, we should not—then in what would be paragraph 4, strike “in current circumstances” and say that “the Committee judged that it was not useful to set a specific target for the fed funds rate.” You're making it very clear that we have a regime change. As to the content of paragraph 4, assuming we are going to be purchasing longer-term Treasuries, I'd leave it as it is. Stay on message. Repeat it over and over and over again. You started with your speech in Austin, and that makes it operative. I have no problem with it, and I would urge it be included as written.

So my suggestions, in summary, are that we embrace alternative A; we transpose paragraphs 4 and 3; we take out the wording “in current circumstances” because obviously we're judging things in current circumstances; and we not include an inflation target at this juncture but do include the rest of the bracketed language in paragraph 2. I believe this is sellable to our bankers, and I believe it's a good way to proceed. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. First Vice President Cumming.

MS. CUMMING. Yes, thank you. Like others, I see the circumstances as requiring the most action we can take. Therefore, I would favor alternative A somewhat over alternative B, but I could live with either. I think that alternative A has the advantage, which President Bullard described and others have referred to, that it does signal a significant change in what we're doing and draws attention to it. If anything, it probably provokes more dialogue with us as a central bank, which I think at this point is a good thing.

Turning to the next paragraph, I'm a bit concerned that inflation is, in fact, moderating very quickly. This morning's number for the total CPI is 1.1 percent. That would lead me to ask whether we are expecting inflation to moderate or are, in fact, seeing inflation moderating. This point is similar to President Stern's. That would also lead me to leave in the bracketed point about the future and the concern there because I think it's better if we put it on the table than have people say, "Don't they see that as a problem?" To that end, I also want to endorse the kind of broad strategy statement that President Lockhart put forward. I actually came into the meeting with a very similar sentence from my staff, really talking about what our goal is. I think it does help to set the stage for what follows here, and this was a focus on improving conditions in financial markets or financial intermediation and ensuring a recovery in output and maintaining low inflation.

CHAIRMAN BERNANKE. I'm sorry. What was the beginning?

MS. CUMMING. I think that President Lockhart was proposing that it follow paragraph 2, perhaps in its own paragraph. We would raise the question of the risk of too low inflation but then have the next paragraph really speak to what our goals would be, and I thought the sentence that you had sounded good.

MR. LOCKHART. I can confuse the matter by saying that I was thinking of it in alternative B, and Ms. Cumming has it in alternative A. So somewhere in there.

MS. CUMMING. Then continuing with this, I would comment on the next paragraph. I'm very sympathetic to the idea that President Lacker was putting forward—that we somehow need to talk about our expectations about the size of the balance sheet. I was going to offer one suggestion: Perhaps for the “entail the use of” phrase in the first sentence of paragraph 4 we could substitute “sustain the size of the Federal Reserve’s balance sheet at very high levels”—something that would indicate that we expect the balance sheet to remain really large but doesn’t talk about whether we’re increasing it from today. Just a thought. I would leave in the sentence on the longer-term Treasuries in large part because we have already talked about it publicly and the language here gives us the opportunity to evaluate and does not necessarily commit us to those purchases in the future. In any case, we would need to explain whether or not we’re going to purchase longer-term Treasuries, having raised it already.

On the directive, I would say that I am comfortable with the directives as written. There might be room, if we found the right language for the size of the balance sheet, for inserting that sentence in here, for example, whatever we take from the first sentence of paragraph 4. I also think that, as part of this monitoring that the System Open Market Account Manager and the Secretary will provide for the Committee, there really is the opportunity to develop much better disclosure of what the Committee is doing, what our balance sheet looks like, and what actions we’re taking—some kind of ongoing monitoring that could be shared with the public that I think would also be very helpful in explaining what the Federal Reserve is actually pursuing in the near term and what it is doing with the balance sheet.

I was really impressed by something that President Lacker said yesterday, which is that—and I paraphrase—we are in uncharted waters but we are groping our way forward. I think that it is a great metaphor for where, in fact, we are. Some of these questions—such as what specific

forward-leaning language we'd like to put in our statement over time and how we think about the monetary base versus the credit policy type of actions that we're taking—are all things that I think we will continue to learn about and explore. What I had put forward is that, as we come to understand them better, we have an opportunity to communicate with the public and help them understand better what we are, in fact, doing. Thank you very much.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. As others have said, the choice among these alternatives, particularly A, B, and C, is not really a choice about the effective rate. It's a choice about our clarity, our conviction, and maybe most important, our readiness in announcing a new regime. As I described yesterday, I think the zero lower bound is not zero, and so there are risks particularly in these markets of going there or threatening to go there. So the balance of my suggestions and edits come from the zero phobia. [Laughter]

First let me talk about C briefly. Alternative C is a sort of way station. It is our last chance to describe the old regime and to pivot to a new regime, whether the new targeted rate was 25 or 50 basis points. But seeing that there doesn't seem to be much interest in that, I won't try to reconcile the music and lyrics of C, which announces a target and then says we're going to miss it; but I had a couple of suggestions to try to bring that together. So let me confine the balance of my remarks to the choice between A and B.

I think in alternative A we are all-in. It makes the new regime explicit. It is likely to be somewhat of a surprise to markets and puts a large burden on all of us—particularly you, Mr. Chairman—not only in the next few hours but really for the next days and weeks in describing with great rigor what the new regime is. I think we're up to that, but it is certainly a tall task at a time of great uncertainty in markets. The way I would try to make that task a little easier is through various

channels—suggesting that we are in some ways revealing the new target in paragraph 5 by suggesting that the implied effective target is 25 basis points, given what our change is on the discount rate and the interest rate on reserves. So that, I think, has a way of making the transition to the new regime less massive than it might be and reinforces my zero phobia point. I think that's one way in which the bold, new regime with a lot of explanation in the next few weeks can at least be not as scary to the markets in the next couple of days.

What about alternative B? If we were to go in that direction, I'd make one modest suggestion. In the first paragraph, I would insert the word "between"—so "the Federal Open Market Committee decided today to establish a target range for the federal funds rate between zero and ¼ percent"—to suggest that you're not going to be at that endpoint. Now, I'll admit that's not a massive change, but it makes me feel a bit better about my phobia and about how markets, banks, and others might react knowing that that is a point you do not want to cross. So a suggestion there.

Now, on your open question, setting a range in terms of the optimal level of inflation or not, I'm not crazy about a range. But if we have a range, I think it is scary, lurchy, to include it today, and so I wouldn't do it. Conditionality, I think, is fine. I don't feel strongly about our considering Treasury securities. I do like Governor Kohn's suggestion about deleting "to continue" because bold new regimes aren't continuations of what we've done. They're bold and new. So I think that's an important change by Governor Kohn. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you very much. Obviously you have a bleak outlook. It's very important to act quickly and decisively, and I think it's clear from the discussion that our choice is between A and B. But as a number of people have mentioned, the economic substance is probably

nearly identical in alternatives A and B. Our exposition of it, though, can make a very big difference.

There are an enormous number of moving parts, and there is a lot to digest. We potentially have here, as I count them, seven new things that people have brought up. That's just an enormous amount to deal with, and I think some of them we want to delay. The inflation target is very important, but it brings up issues here, and I'm not sure that we want to talk about something like that now. So let me just quickly run through these.

We have to think about the dynamic of what we are going to say next time. What is this committing us to talk about? First, the rate cut is one very big issue—75 versus 50 basis points. Although some market participants think it will be 75, I think that will still be news, but I think it's very important for us to move there. Second, just moving to a range is something new; I think that is something that is actually quite newsworthy in and of itself. Going to no target at all is extremely newsworthy, maybe too newsworthy to include with all these other things. I think of this and the discussions that we've had as setting up an extremely valuable template for how we should be thinking about the statement and what we need to be explaining today as well as over the next few meetings. So I would actually say that, given all of the moving parts and all of the changes, talking about a range either “between” or “of” zero to  $\frac{1}{4}$  percent would make a lot of sense. I don't think we're introducing any more ambiguity. I think we're introducing a bit of ambiguity especially for people who are not that well informed by saying that we don't have a target anymore. What President Yellen said was that it could easily be misinterpreted as “gosh, we don't really have control over these things anymore anyway.” I don't think any of us believes that, and I think there's more of a chance of that misinterpretation, which I don't want us to have, if we do that today with all the other changes than if we waited a little. I still think the range is a pretty big shift.

Expressing concerns about inflation being less than the level fostering economic growth—again, I think that’s something that I would prefer to wait on. I like President Stern’s edit about talking about the appreciable diminution of inflationary pressures, but I would wait on putting in the phrase about whether the level is too low to be consistent with fostering economic growth. I mentioned the inflation target. I think we should wait on that. We’re introducing conditionality, which I think is valuable to do, and I think the phrase there is fine. We’re talking about old and new programs as well as balance sheet issues. As a number of people have mentioned, we have already talked about standing ready to expand the purchases of agency securities as conditions warrant. So that’s forward leaning already. If we are committed to doing the Treasury securities fairly soon, I think we should just go along with that and feel comfortable with that. But we do have to think a bit about the precedent of making concrete new policies that we’ve generally talked about in this statement. Is it something that we want to do going forward? Does this commit us to doing that? I don’t think so, but I think we should just think about that.

Then I think it’s very important that we talk about the use of the balance sheet. I agree with Governor Warsh that to be bold you don’t say “continue to.” But we are talking about some existing programs, so in some sense we are continuing. I’m not quite sure exactly where we want to go on this, but I just wanted to raise that ambiguity. On the balance sheet, though, I go back to the Chairman’s remarks from yesterday. It is important to think about the composition of the balance sheet, not just the size in and of itself—Governor Kohn also made reference to this—so I would be very wary of focusing on the size here. I think that just talking about ways to use the balance sheet is the appropriate way to go now. If we have more experience and understand better how the size might evolve over time, how the different programs we have might fluctuate, I’d feel more comfortable with that. If we talk about the size or commitment to growth of that size or expecting it

to be large, just as a number of people said, it could suddenly shrink, and we don't want people to think that we're changing monetary policy because of that. Some of these things would just be changing over time. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Duke.

MS. DUKE. Thank you, Mr. Chairman. I do favor alternative A. In terms of what will happen with the prime rate, I frankly don't know, but I think it will leave the banks to determine their own prime rate and floors as they wish. I would not minimize the fact that we are actually still setting a rate for the interest on excess reserves as well as the discount rate. This experience with interest on reserves is brand new for us, and I don't think we've had enough experience to know how it is actually going to work. It does leave room for the spread to establish itself as the fed funds market regenerates, and I think it gives us some room to have some experience with that regime. I think this communicates the regime change better than any of the other alternatives, and at the end of the day, this is a communication document. I would strongly echo President Pianalto's comments that, in this new regime, we really need to stay on the same page to avoid total confusion in the marketplace. I know that independence of thought is one of the strengths of this body, but if we could for a time set that aside at least in public and all speak from the same talking points, it would make all of our policies more effective.

In terms of the specifics of the statement, I would defer to another day the language in brackets in paragraph 2 of alternative A. The conditional language I would keep in. About the phrase "to continue" and really all of paragraph 4, to my mind, although we are continuing some of the things that the Board has done, it has not necessarily been clear that all of these have been considered by the FOMC. To me this takes everything we are doing and puts it in the middle of this table and gives us time to discuss which of them we like, what we might use or not use, and how we

might express the degree to which we would use all of these tools. We've made a lot of progress in a very short time in coming to the broad outlines of the things that we might do going forward, and in coming meetings we'll actually contour those more and make them more specific. I would include that as well. As to whether or not we "use" our balance sheet or "expand" our balance sheet, I would leave it at this point as "use our balance sheet" and have further discussion on that. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Boy, you've left me a simple task. Yes, a two-hander from President Fisher.

MR. FISHER. Mr. Chairman, I just want to come back to a point I suggested. Is there any sense in transposing paragraphs 3 and 4 to emphasize the new regime?

CHAIRMAN BERNANKE. Well, let me comment.

MR. FISHER. Yes, sir.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. In light of our discussion of "use of" in this balance sheet quantitative, I was going to point out that President Plosser's suggestion about a specific number for an upper bound on the size of our balance sheet would remedy the problem that we were discussing there. In addition, it would greatly alleviate the deep discomfort I and perhaps others may have about our governance practices and the extent to which they're publicly known. I would also emphasize that there are two theories about the effect of our balance sheet and that this is written from the credit-spreads point of view, and it would be useful to encompass both.

CHAIRMAN BERNANKE. Let me just say, generally speaking, that we are making a lot of changes here. I'd like to suggest that we move gradually. But one suggestion I did like and would propose to see if it helps you is First Vice President Cumming's suggestion of saying that

we'll provide support with measures that sustain the size of the Federal Reserve balance sheet at a high level. That makes it very explicit. Later we can go further about quantitative guidelines and so forth, but for the moment we're saying that the balance sheet size itself is of importance.

MR. LACKER. Because the word "size" is a quantitative word, it does a lot better than "use of," which is ambiguous about sterilization. So to that extent I view First Vice President Cumming's suggestion as very positive.

CHAIRMAN BERNANKE. President Plosser, does that satisfy you for today?

MR. PLOSSER. Would you read that again, please? I'm sorry, Mr. Chairman. This is very difficult.

CHAIRMAN BERNANKE. Just for today, "the focus of policy going forward will be to support the functioning of financial markets and stimulate the economy through open market operations and other measures that sustain the size of the Federal Reserve's balance sheet at a high level."

MR. PLOSSER. I think it is the focus of the FOMC's monetary policy.

CHAIRMAN BERNANKE. The focus of the Committee's policy.

MR. PLOSSER. Of the Committee's policy—fine.

CHAIRMAN BERNANKE. Is that okay?

MR. PLOSSER. Yes, much improved.

CHAIRMAN BERNANKE. All right. So in the spirit of trying to move gradually and not just overwhelm the market, I would like, as I say, to move halfway to where we want to be. There was a slight majority in favor of alternative A, but I'm very concerned that, if we don't say anything about the funds rate, there is just going to be confusion. I am also concerned about the view that President Yellen, Governor Kroszner, and others raised if we sort of say that we're not targeting it

anymore. It suggests that we're indifferent to the rate or that we have no ability to raise it. What does it mean to say that rates will be kept low for a long time, if we don't have some view on that? Again, I would cite the Japanese precedent. I understand the concerns about community banks. I do think that's not a reason that should control our policy, and they certainly can change their pricing policy. So let me make some suggestions. Brian, will someone take notes? Then we can come back. In order to be conservative and avoid risk, I would like to propose alternative B. In the first paragraph, I would take Governor Warsh's suggestion and say "target range for the federal funds rate between 0 and ¼ percent."

MR. LACKER. I'm sorry. Say that again.

CHAIRMAN BERNANKE. "Target range for the federal funds rate of between 0 and ¼ percent."

MR. LACKER. "Of between"?

CHAIRMAN BERNANKE. Oh, sorry. Not "of between" but "a target for the federal funds rate between 0 and ¼ percent."

MR. LACKER. So the target is between.

MR. KOHN. A target or a target range?

CHAIRMAN BERNANKE. Target range.

MR. LACKER. Target range is between.

CHAIRMAN BERNANKE. "The target range for the federal funds rate between 0 and ¼ percent."

MR. LACKER. So the target range is to be between those two numbers.

CHAIRMAN BERNANKE. All right. Okay. Scratch it. Paragraph 1 is the same. That's simple. Paragraph 2 is the same, including the additional sentence about financial markets, no

longer bolded. Paragraph 3, President Stern was right about “quickly.” Why don’t we say “appreciably”? Now, a lot of people have talked about inflation targets. I think we should look at that very seriously. Today is not the day to do it. Maybe that should be introduced simultaneously with concerns about deflation. I propose that we strike the bracketed material but put the word “further” after “moderate”: “The Committee expects inflation to moderate further in coming quarters.” The fourth paragraph as is—most people were okay with the conditionality there. In the fifth paragraph, strike “continue to”: “The focus of the Committee’s policy going forward will be to support the functioning of financial markets and stimulate the economy through open market operations and other measures that sustain the size of the Federal Reserve’s balance sheet at a high level.” You know, I get the sense from the Committee that they will entertain purchases of Treasury securities in the next quarter or so. In order not to jerk the market around too much, I think we should therefore mention it and leave it where it is. So the only change in paragraph 5 that I’m proposing is in the first sentence.

MR. KROZNER. So the last sentence will have “continue to” or not?

CHAIRMAN BERNANKE. Okay. Let’s see. Yes, I think it has to be there. “The Federal Reserve will continue to consider ways of using its balance sheet.” I think we have to say that because we have used it.

MS. DUKE. Would that say “the Committee”?

CHAIRMAN BERNANKE. Sorry?

MS. DUKE. Would that say the “Committee will” or “the Federal Reserve will”? Perhaps “the Committee will continue to consider ways to use the Federal Reserve balance sheet.”

CHAIRMAN BERNANKE. “The Committee will continue to consider ways of using the Federal Reserve’s balance sheet.” I think we should leave it where it is. Just leave it ambiguous for

now, if that's okay. So those are the changes. Brian, would you like just to read that? Are you able to read it that? Do you have the information?

MR. MADIGAN. Yes.

CHAIRMAN BERNANKE. Would you go ahead and read the thing?

MR. MADIGAN. "The Federal Open Market Committee decided today to establish a target range for the federal funds rate of 0 to ¼ percent. Since the Committee's last meeting, labor market conditions have deteriorated, and the available data indicate that consumer spending, business investment, and industrial production have declined. Financial markets remain quite strained and credit conditions tight. Overall, the outlook for economic activity has weakened further.

Meanwhile, inflationary pressures have diminished appreciably. In light of the declines in the prices of energy and other commodities and the weaker prospects for economic activity, the Committee expects inflation to moderate further in coming quarters.

The Federal Reserve will employ all available tools to promote the resumption of sustainable economic growth and to preserve price stability. In particular, the Committee anticipates that weak economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time.

The focus of the Committee's policy going forward will be to support the functioning of financial markets and stimulate the economy through open market operations and other measures that sustain the size of the Federal Reserve's balance sheet at a high level. As previously announced, over the next few quarters the Federal Reserve will purchase large quantities of agency debt and mortgage-backed securities to provide support to the mortgage and housing markets, and it stands ready to expand its purchases of agency debt and mortgage-backed securities as conditions warrant. The Committee is also evaluating the potential benefits of purchasing longer-term

Treasuries securities. Early next year, the Federal Reserve will also implement the term asset-backed securities loan facility to facilitate the extension of credit to households and small businesses. The Federal Reserve will continue to consider ways of using its balance sheet to further support credit markets and economic activity.”

CHAIRMAN BERNANKE. And then the related action. President Plosser.

MR. PLOSSER. This is a clarification, Mr. Chairman. I hate to be difficult, but in thinking about this as a step, we talked about an inflation target. What other steps do you see that we need to clarify as we try to make this process more—I’m looking for some forward-looking language here.

CHAIRMAN BERNANKE. Well, we need to talk about it. I think there are two promising directions. One is to have an inflation target or something close to an inflation target, depending on how the Committee decides, what we think is feasible, and so on. The other would be to develop a more formalized structure for discussing the integrated responsibilities we have with respect to the balance sheet, and that could involve quantitative ranges, for example. I didn’t quite like your ceiling because I think in some cases you might want to have a floor. But I don’t think, as I said yesterday, that we can describe our policies in a single number, and I don’t think that a target for the overall size of the balance sheet is a sufficient statistic for what we’re doing. But I do think that, for governance and other reasons, we can talk about ranges, consultation, and so on, about the size of the balance sheet. Okay? Again, I apologize that this is an imperfect document. Given the many moving parts, as I said, I wanted to try to keep it from being too overwhelming. This is going to be a big enough step as it is. Governor Kohn.

MR. KOHN. Just one further clarification. By sustaining the balance sheet at a high level, we’re not promising that it won’t fall from here, right? Just that it will be higher than it ordinarily would be.

CHAIRMAN BERNANKE. That it's going to be above \$800 billion for some time I would think is a fair statement. Does anyone else have a comment? Governor Warsh.

MR. WARSH. I apologize for the bad English that I offered before, but an alternative to the first sentence that you read that would, I think, be English to Jeff's fair point—it would be to delete the word “target.” So it says, “To establish a range for the federal funds rate between zero and  $\frac{1}{4}$  percent.” So those are your two options.

MR. LACKER. But it's the same issue. “Range” is the noun, and you're saying that the range lies between those things, and you're not telling everyone what the range is.

CHAIRMAN BERNANKE. It would be a range of 0 to  $\frac{1}{4}$  percent. I think that would be right.

PARTICIPANTS. Right.

MR. WARSH. Withdrawn.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Mr. Chairman, I can't support that, and I'll tell you why. I do feel that we had an elegant solution in alternative A. I firmly believe that if we target 0 to 25 basis points—the effective funds rate we all know is trading at  $\frac{1}{16}$ —it is going to create enormous backlash. It is unacceptable to me to say that the bankers will figure out how to deal with this. They can't. Second, as far as money market funds are concerned, the expense load is usually 30 basis points. So for whatever it is worth, I will be a minority of one, but I cannot support that. Alternative A was elegant in that it made no statement. Then, and I think very important, by dwelling on this business of what our target rate is, we diminish what we're doing, and what we're doing is changing things fundamentally, which I fully support.

So for whatever it's worth, I understand all the counter-arguments. Janet and I have talked about this. I know what people are going to say. I think (a) it is an unnecessary distraction, (b) it creates a potential political backlash, and (c) it is counterproductive. So I just want to state it myself straightforwardly and honestly—I may be the only person at this table, but I'll vote against that. If you give us alternative A, I'll vote for it. I know I'm one of 17 at this table—there are more than 17 people at this table. I apologize, but I don't think it's necessary to make the funds rate clear. It's implied in what we're doing, but alternative A gives people enough ambiguity to steer around it, and that's my opinion. I apologize.

CHAIRMAN BERNANKE. I think confusion is an extraordinarily dangerous thing for us.

MR. FISHER. The key is paragraph 4 in alternative A—that is what we're doing.

CHAIRMAN BERNANKE. No, I agree with that. What B says is that this is the end of one regime and the beginning of another. The first one says that this is the end, and then we say what are we doing going forward. I think that clarity is needed. If we did what you're suggesting, I don't know for sure what would happen, but I think there would be a lot of commentary and questions: "What are they saying? What do they mean?" That would be much more than what B does. I understand your point. I thought hard about it, and I know that there was a mixture of views. Governor Duke.

MS. DUKE. I'd like to ask one question just, again, about going forward. We talked about what you would do differently tomorrow under alternatives A and B and determined that it was nothing. What would you do going forward if federal funds started to trade above 25 basis points under alternative B?

MR. DUDLEY. Well, I guess we would stop doing reverse repos to signal our protesting of the fact that the fed funds rate is trading soft to its targets. That's the first thing we'd do. I have to

say that I think the probability of this happening is extremely remote because banks are balance sheet constrained and therefore aren't going to do that perfect arbitrage. Maybe in a normal world it would be possible to get fed funds to trade above the interest on excess reserves, but in this world it's just extraordinarily unlikely. But if it were to happen, we would signal our unhappiness with that, and the first thing we would do is we'd stop doing the reverses that we've been doing every day to protest the softness in the funds rate.

MS. DUKE. But you would be able to pull it back down.

MR. DUDLEY. I don't know how quickly we could pull it back down. Look. I don't think that this is going to happen under almost any conceivable circumstance, but if it were to happen, we would basically add reserves to protest what we're seeing. Time would pass. We'd have another FOMC meeting, and we would make an adjustment to the framework. But I think this is an extremely remote possibility.

CHAIRMAN BERNANKE. First Vice President Cumming.

MS. CUMMING. I think that, if we see the risk of institutional factors, like the way the prime rate is linked to rates, really getting in the way of good policy, we have an obligation to work with the banking community, work with other regulators if necessary, and work with the SEC if necessary to clear those institutional obstacles. So I wouldn't let the institutional things be something that gets in our way, rather they would be something that we can really help overcome where we see problems. That link could be changed, and we may want to work actively with the banking community to make sure that it happens.

CHAIRMAN BERNANKE. No, clearly the banks are not required to move their prime rate with anything in particular.

MR. FISHER. Of course. They can always have their markup, but you can also reverse the argument and say, so why do you want to cut rates? Again, I think we're pushing on a string here, Mr. Chairman. Forgive me for speaking, but the guts of what we're doing and the importance of what we're doing, which I fully support, are in paragraph 4, and I believe we're distracting from that by focusing on the fed funds rate.

CHAIRMAN BERNANKE. I agree with what you're saying about the important part, but it is nevertheless the case that—as President Yellen pointed out—if we wanted to, we could raise the funds rate if we put on enough pressure. Therefore, in an important sense a decision is being made here to end this particular policy approach and to move clearly to another one with the words “the focus of the Committee’s policies going forward will be” and that is described in a lengthy paragraph. I am just so concerned about what will happen if we say we're not going to target it. What does that mean? Is it going to be 5 percent tomorrow? I just fear the confusion. President Hoenig.

MR. HOENIG. In terms of what we're going to be speaking about regarding the new regime, I think it was easier when we had alternative A and we were going to a new regime than when we're saying, “Well, okay, we're going to end this regime here.” I'm giving this speech; I get questions. We're going to end this regime, and we're going to go to this. So now I'm in the middle of a transition, and I'm trying to explain it, but other than, “Yes, we left this behind, and here we are going forward.” So that's my concern about the middle step here. I guess in your opinion it's easier to explain going from “Here's the old regime; we're going to stick to it for a little while longer and then . . .”

CHAIRMAN BERNANKE. No. Today is the end of the old regime. We have hit zero. We can't go further. Going forward, this is what we're going to do. I think that's clearer. Again,

I'm just concerned about not saying what we're doing with the funds rate. Are we going to let it do whatever it wants to do from today? I think that's just going to create volatility. Again, I'm sorry for those who are in disagreement.

MR. DUDLEY. For what it's worth, Mr. Chairman, I agree with you. I think the market will be more confused about alternative A than alternative B. If that's important, then that should be part of the decision.

MR. FISHER. But I asked you that during the question period.

MR. DUDLEY. I said substantively we're not going to conduct policy any differently, but the market will be more confused about A than about B in terms of having to process what this means. Now, it will get to the right answer eventually, but it will be more confused in terms of processing information, in my opinion.

MR. KROZNER. I just want to underscore that, because that was my concern in moving toward B rather than A because I certainly agree that the economic substance is the same. But I do think there's much more of an opportunity for misinterpretation by the market, and for us to say that we don't have control of the fed funds rate is the main concern that I have with A. I think B is very clear. The idea of talking about a range, including zero, is something that at least as far as I know the Fed has never done before, and I think that's an enormous shift. That will be seen as a real shift. But to go to A would have ambiguity and would be very difficult to explain to people who are not real aficionados that we're not saying, "Gosh, we really don't have the opportunity to fix the federal funds rate anymore. That piece is broken."

MR. FISHER. I heard eleven people argue the case for alternative A. I counted them.

CHAIRMAN BERNANKE. Most of them said it was pretty close, and it's a matter of communication. It's my judgment that we are just going to cause a lot of criticism and a lot of

concern and confusion if we do it now. I also agree that it’s fairly close. But my feeling is that the concern of clarity is more important to me. Others? Would you call the roll, please?

MR. MADIGAN. Mr. Chairman.

CHAIRMAN BERNANKE. Yes.

MR. MADIGAN. There is also the issue of the directive.

CHAIRMAN BERNANKE. The directive would stand as we’ve written it, with the additional sentence at the end?

MS. DANKER. Yes, that’s right. The vote will encompass the statement as Brian Madigan read it and the draft directive for alternative B as was shown in the handout. Since it is longer this time and we are short of time, I won’t read it.

Chairman Bernanke	Yes
First Vice President Cumming	Yes
Governor Duke	Yes
President Fisher	No
Governor Kohn	Yes
Governor Kroszner	Yes
President Pianalto	Yes
President Plosser	With some reluctance, I will vote yes.
President Stern	Yes
Governor Warsh	Yes

CHAIRMAN BERNANKE. Thank you. Could we bring lunch back? Would that work?

MS. DANKER. That doesn’t usually work well in a recorded session.

CHAIRMAN BERNANKE. That doesn’t work well? All right. Let’s have half an hour for lunch.

MR. MADIGAN. The Board meeting, Mr. Chairman.

CHAIRMAN BERNANKE. The Board meeting is adjourned. Hold on. The Board will go into my office. Everyone else, lunch. We will take a half hour break, and then we have just a few short items afterwards to complete. Okay? Thank you.

[Lunch break]

CHAIRMAN BERNANKE. Let's reconvene briefly for a couple of other items. On consideration, in order to maintain a united front with the Committee, President Fisher changed his vote to vote "yes" on the resolution. We have two items. First, Governor Kohn is going to talk a bit about our longer-term projection, and then we would like just to hear a bit from Bill Dudley and Pat Parkinson about the TALF. We have had several previous briefings on this, but we will update this and talk a bit about its implications for balance sheet management. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. You should have gotten memos from the Subcommittee on Communications having to do with the longer-term projections. In considering the trial run and also the current situation, in which the '09, '10, and '11 projections really weren't settling down and didn't look as though they would soon settle down into what would be consistent with where we would want things to be in the long term. In these circumstances, the subcommittee thought it would be a good idea to go ahead with a quarterly extension of the projections to give the public a better idea of where we thought output, growth, employment, and inflation were expected to be over the longer run.

We made four recommendations within that overall recommendation. We recommended that we do it quarterly, not just once a year, and that the discussion be integrated with the rest of the quarterly projection process in the Summary of Economic Projections. We also recommended that we continue to do this for total PCE inflation but, as we did in the trial run, not do it for core PCE to emphasize to the public that it was the total we were looking at over the long run and not the core. We thought that the questionnaire should ask each participant to provide "your best assessment of the rate to which each variable would converge over the longer

term (say, five to six years from now) in the absence of shocks and assuming appropriate monetary policy.” This would be something that didn’t emphasize the fact that it was five or six years but where things would settle down and it might take five or six years to settle down. So those are our recommendations. Did I miss anything—I’m looking at the subcommittee members?

After today’s and yesterday’s discussions, I think the subcommittee will also take another look at whether the Committee should move further in the direction of an inflation target and get some material to the Committee before the January meeting. I think we are not looking for a vote on this today, but if anybody has any views about whether this is the appropriate direction in which to go, I would like to hear them.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. I think the subcommittee ought to consider whether, if the Committee adopts a 2 percent or whatever inflation objective, it might be more confusing than clarifying for us to also be issuing these long-range convergence projections. My first cut at thinking this through—I haven’t given this a lot of thought—is that, if we are going to say our target is X, I don’t see why we would even need these.

CHAIRMAN BERNANKE. This is why they need to look at it now because I think they really are substitutes.

MR. LACKER. Yes, I think they are substitutes.

MR. KOHN. You might still need the output and unemployment.

MR. LACKER. What for? We don’t control—well, you know that—sorry.

CHAIRMAN BERNANKE. Any other comments or questions?

MR. PLOSSER. I guess, given the zero lower bound issues that we have been discussing and some of the consequences of being there, the difficulty of dealing with policy in that environment, in previous meetings on this topic we have talked about the prospects of specifying the funds rate path or the range of the funds rate paths of Committee members and their projections. It was suggested earlier that, had we done that previously, we might be in a position to signal to the markets more about our commitment to inflation or something like that. So I guess what I'm saying, in the context of both inflation targeting and its projections, giving that a second round of thought, in terms of how it might fit in with that, would be useful under some circumstances.

CHAIRMAN BERNANKE. Okay. Anyone else? All right. Let me turn to Bill, who very kindly learned that he was on the program about fifteen hours ago.

MR. DUDLEY. It is better than the time I found out I had to discuss a Stiglitz paper in grad school about 12 hours ahead of time. That was harder. I read the Stiglitz paper three times, and then I started to understand it. [Laughter] What I thought I would do, if I could, is invert the order and start with the balance sheet issues and then go into the TALF because I think that there is a broader question of our exit from all our liquidity programs. That is a very legitimate issue. You can imagine a circumstance that sometime in the future we still have an inflated balance sheet, and we actually want to raise the federal funds rate target. The question is, Would we be able to do so?

The good news, of course, is that a lot of our facilities are going to go away pretty naturally—the swaps, the CPMF, and the TAF. We may have to give it a bit of a nudge, but those programs should downsize pretty automatically. Even after that, we are still going to have on our books a lot more agency debt and a lot more agency mortgage-backed securities. We're going to have loans outstanding that are associated with Bear Stearns and AIG. We are going to have longer-term Treasuries. We have potentially a very large funding obligation to Citigroup, if its losses go through the FDIC and TARP money. Then, of course, the TALF could also still be on our balance sheet, depending on what the terms of those TALF loans are. I am going to come back to that a little later.

Generally, I am not worried about our ability to raise the level of interest rates, even if our balance sheet is still inflated at the time, for a number of reasons. First, I think the interest rate on excess reserves does work, just not quite as well as we had

hoped. The gap between the interest on excess reserves and the effective funds rate has been running in the 40 to 50 basis point range. That means that, if we were to raise the interest rate on excess reserves, we would raise the whole complex of interest rates, including the effective fed funds rate. The gap is as large as it is because, when balance sheet capacity is scarce, people have to be paid to use their balance sheet to arbitrage that difference. But I think that gap today is pretty stable, and we can expect that, as the balance sheets return to a more normal condition, over time that gap might actually narrow as people say, “Well, gee, I have more balance sheet capacity to do this arbitrage.” So that would be point number 1.

Point number 2 is that we can probably take active steps that reduce the cost of that arbitrage to banks today. We can limit the GSEs in terms of their fed funds sales, and we can also reduce the balance sheet consequence of the arbitrage by potentially removing those purchases from the leverage ratio, giving them a little regulatory relief, which actually makes some sense because there is really no risk to a bank that is buying fed funds from another bank and putting them on deposit with the Fed. There is no interest rate risk overnight. So that is something that we might want to consider.

Another thing that I think is important to recognize is that there may be other means of addressing our excess reserves problems. The first point is that interest on excess reserves is probably good enough to do a reasonable, if somewhat sloppy, job in pushing up interest rates. In addition to that, we have other ways of addressing excess reserves in the system. We have the ability to change our monetary policy framework. We had a meeting earlier this year in which we discussed some of the potential places we might want to go. To drain excess reserves, if we decided that was necessary to get better control of the federal funds rate, we could do reverse repos with a broader set of counterparties, like money market mutual funds. We could do that using the agency debt on our balance sheet and using the Treasury debt on our balance sheet, and we could probably do that in size, since the money market funds would be very happy to be our counterparts.

Second, we could also change the monetary framework in a more radical way. One can imagine a system by which we set voluntary reserve targets for banks at pretty high levels, where the rate they got if they were above the target dropped off considerably and the rate they got below the target dropped off considerably. So we could basically give the banks incentives to hold the amount of their excess reserves that actually are in the banking system.

Third, the Treasury could help us, as it was helping us for a while. The SFP bills actually did work. The problem was that, as the Treasury’s borrowing needs skyrocketed, it started to worry about running into the debt limit. What actually happened—it was a political issue—it didn’t want to notify the Congress 60 days ahead of time that it might hit the debt limit, and that is really why it started backing away from the SFPs. Now, we could resolve this in a couple of different ways. One, if the debt limit were raised enough, you would have plenty of room. Or you could

potentially exempt the SFPs from the debt limit, and you could argue that doing so makes sense because there is debt here and there is cash on the Federal Reserve balance sheet, so no real net debt is created.

Last, you could gain legislative authority to issue Fed bills, which I think is actually a little more radical step. But the attractiveness of that, of course, is then we have complete control over our destiny, and you don't have the mashing together of church and state, where we are at least somewhat dependent on the Treasury for managing our monetary policy. So the bottom line for me is that I don't think we should be concerned about the large size of our balance sheet constraining our ability to manage our interest rate policy going forward. That should not be a driver of what we decide about our liquidity facilities.

So why is this important? Well, the TALF, just to recap, is a program in which we would basically lend funds against AAA-rated consumer asset-backed securities on a nonrecourse basis to basically anyone—not quite anyone, not foreigners, but pretty much anyone who wants to do it—and we would conduct these transactions through the dealer community. In the TALF program we would be offering three things to investors. First, they would be offered more leverage than they can get today because the haircuts that we would put on the securities would not be the 50 percent type of haircuts that the market is putting in place today. They might be 10 percent, 20 percent, or 30 percent. We are still negotiating, determining that. So investors could get a lot more leverage than they can get today. The second thing that would be offered is protection against tail risk, and that is something that investors very definitely can't get today. Because the loan would be nonrecourse, the investor could lose only the amount of the haircut, and that is really important in a world where prices are very volatile. So that would significantly reduce the mark-to-market risk of investing in the securities from the perspective of investors. Finally, probably the most important thing, we would be providing term funding. People could buy these securities, which are of relatively long duration. It depends on what security you are looking at, but the securities probably range in duration from two years to seven or eight years, if you are looking at student loans. So this facility would not work if the term were very, very short.

We have been in the process of going out and talking quite extensively to issuers and investors over the past couple of weeks. The Board staff has been involved. The New York Fed staff has been involved. Basically what we found out is that they like the program. The leverage is not quite as important as we thought. They said they could live with less leverage rather than more leverage. They like the protection against the tail risk. The nonrecourse nature of the loans, of course, is very attractive. But the main thing on which they focused and that they said was most important for the success of the program was the length of the term of the loans. When we went forward with the initial term sheet, we were talking about a one-year term, and the investors have come back quite forcefully and said that a one-year term is not sufficient. The program will not work with a one-year term. Now, maybe they are exaggerating the degree to which it wouldn't work, but it does seem fairly credible

that there is no reassurance that one year from now we are going to be completely out of the situation that we are in today. So, certainly, it is completely legitimate to be worried as an investor about the rollover risk one year from now, given that these are assets of longer durations.

Where I come out on all of this is that I think we really do need to be attentive to that concern, and we should try to make the term of the TALF loans as long as possible, subject to protecting the Fed, obviously, from credit losses. If we were to make it short term, I think there is a high probability that the program would fail. I think that would be a huge blow to our credibility. Up to now we have done pretty well in wheeling out programs that have done what we said they were going to do. I think this is a particularly important program because of its ability to be expanded in multiple directions. The Treasury is very, very interested in this program as a way of using TARP capital efficiently. So to wheel this out on terms that are too short and that make the program unattractive would be very, very damaging to our credibility. My view is that we should be willing to offer these loans at term. I would favor three years. I think if we do that, this program will be successful. Obviously, if we do that, we are going to have more balances on our books. This program was originally conceived of as about a \$200 billion program. That is probably as big as it would get for consumer ABS, but obviously, if we expand it to CMBS and other things, it could be considerably larger than that. So that is sort of where we are. Pat, do you have anything you want to add?

MR. PARKINSON. No, I don't think so. Again, I think the message, as Bill is saying, from the investors and the issuers was that a three-year term would greatly enhance the chances of success. Indeed, I think our friends in the Treasury Department, at least in the case of government-guaranteed loans, would like to go even longer than that. But both the Board staff and the New York staff thought that it would work best at three years.

MR. DUDLEY. Three years gets you far enough along that reasonable people will believe that three years from now you might actually be able to get private-sector financing for this stuff.

CHAIRMAN BERNANKE. I am going to need to consult on an informal basis with the other Board members on this. But in the spirit of our discussion yesterday, I invite questions or comments, which will inform our thinking on this as well. Does anyone have any questions or thoughts on this? President Lacker.

MR. LACKER. You said that investors who bought this and put this and got the lending would have the haircut at risk, right?

MR. DUDLEY. Yes.

MR. LACKER. They would get all of the upside?

MR. DUDLEY. Yes.

MR. LACKER. So if spreads close in the marketplace, then they get the upside—so we are essentially lending to them to make a leveraged bet on the securities.

MR. DUDLEY. The purpose of this facility is not to give investors profits. The purpose of this facility is to address the fact that lending spreads on AAA-rated securities are extremely wide right now and the securitization market is closed. The idea is that, if you offer more-attractive terms than those available in the market, the demand for these securities will increase, issuers will be able to sell these securities at better prices and lower spreads, and the consequences of that will be lower lending rates and improved credit availability to households. The goal at the end of the day is not to do anything for investors. The goal is to harness investors' profit motivation to drive down spreads in the AAA market.

MR. LACKER. I understand. Now, why are spreads high?

MR. DUDLEY. Our view is that spreads are high mainly because people can't get leverage—that is number 1. Number 2, the traditional buyers of these AAA-rated assets either have disappeared completely, like SIVs and bank conduits, or have balance sheet constraints. So the risk capital hasn't really been willing to come in because they can't get the financing to make it worth their while. You know, LIBOR plus 300 is not an attractive proposition for someone who is using capital on an unleveraged basis.

MR. LACKER. When I think about leverage and the demand for a given security, if I, as an investor, am going to make a leveraged purchase, then whoever is giving me a loan to make that is also taking a risk position in the security. So the demand that leveraged investors make is really a joint demand by them and the lenders. Everything you have said sounds as if demand is low. Am I missing something here?

MR. DUDLEY. The demand is low for these securities today. It is low because of lack of leverage.

MR. LACKER. In other words, I'm saying that people who would provide funding also have a low demand or a low evaluation of the value of those securities. This all amounts to a bunch of people out there putting a low value on these securities.

MR. DUDLEY. No, I don't think that is quite right. We are in basically a market disequilibrium, where the traditional buyers of these securities have vanished. In a normal market environment, it would be completely reasonable to lend against these securities on a leveraged basis. But the people who would do that lending—banks and dealers—are balance sheet constrained, and that is why they are not willing to make those loans. If we had a normal banking and dealer situation today in which they were willing to extend loans to their counterparties, they would be providing the leverage. But that is just not happening.

MR. LACKER. Do you mean they are not making purchases? They still exist—right?—you said buyers vanished.

MR. PARKINSON. The lenders, I think he was saying. Some of the buyers vanished in the sense that they were SIVs or a lot of them were actually securities lenders who were reinvesting their cash collateral in this, and they have learned a lesson about doing that.

MR. LACKER. What evidence do you have that their absence from the market doesn't reflect just adverse views about the value of the securities that we should treat the way we treat all other security evaluation decisions that market participants make?

MR. DUDLEY. Well, I think the counterfactual is what the investors tell us. They tell us that that is not the case.

MR. LACKER. Well, wait. These are the ones who would be aided by this program, right?

MR. DUDLEY. If you look at AAA-rated assets, the historical credit risk on these assets is very, very low.

MR. LACKER. Over the cycle or in a recession?

MR. DUDLEY. Yesterday we talked about AAA tranches of student loans, which are 97 percent backed by the Department of Education. They are selling at LIBOR plus 300 or LIBOR plus 400. It is hard to say that those securities are priced there because of credit risk.

MR. LACKER. What would a security like that have sold for in 1974 or 1981?

MR. DUDLEY. I would be very surprised if you saw anything similar to what we are seeing today.

MR. LACKER. Well, they didn't exist then, so we can't look it up, for one. So how do we know these are out of bounds with what they would have traded at?

MR. DUDLEY. Jeff, this is all a judgment call. We have been making lots of judgment calls.

MR. LACKER. Yes, I know. But you are not giving us any evidence about this, Bill. You are not bringing anything coherent that is—

CHAIRMAN BERNANKE. There is an ongoing discussion about whether prices in markets are in some sense Pareto optimal prices or whether there is liquidity risk, other premiums, that the central bank could do something about. I don't know any way to resolve it. We have the same discussion each time. President Hoenig.

MR. HOENIG. All right. So we are going to give them a three-year term to give them assurances that they don't have to worry about rolling over. I am assuming that, as the market improves—and it should over the next year or 18 months—this would be almost self-liquidating because it would then become attractive to these parties to leave now and that would be taking it off our balance sheet. Is that the operating assumption?

MR. DUDLEY. Well, it really depends on what rate we are charging for the loan. Presumably we are going to charge for the loan at a rate that is attractive in times of extremis and somewhat expensive in normal times. So the question really is, Will the market financing improve quickly enough to make the market a cheaper source of funds? I don't think we can count on all of these loans going away before the end of the term. I think we have to presume that the term could actually be three years because we just don't know whether the financing will be available from the private sector sooner.

MR. HOENIG. That puts us at risk of taking a loss, then, if we should decide to reverse the policy action.

MR. PARKINSON. But we could accelerate that process by raising the minimum rate at which we would lend and so make it a higher spread above LIBOR. If we are going to do it through an auction—there are still some questions about how to allocate the credit within this program—and if there is a minimum rate at which we would make funds available in the auction (that would be the

spread over LIBOR) and we adjust that spread upward, we're giving them more of a push to go back to relying on market financing.

MR. HOENIG. That would be the ideal—to push them back out as quickly as possible when the market straightens out.

MR. DUDLEY. Well, I think the idea would be that the window for this program would not be three years. It would be a shorter period of time. So the program would come to an end by the end of 2009 perhaps, but the loans that we had made during that period could be outstanding for some time beyond that.

MR. HOENIG. But we're talking about a lot of assets on our books.

MR. DUDLEY. The other thing that we should talk a bit about is credit risk to the Fed in all of this. I think the important thing to recognize here is that the credit risk to the Fed is quite low because the Federal Reserve is protected by two things. One, it is protected by the haircuts. The Fed's risk is a credit risk not a mark-to-market risk. Two, the Fed is also protected by the TARP money. The way this will work is that, to the extent that people put securities to us, we take those securities and we place them in a disposition SPV (special purpose vehicle) that's capitalized by TARP money. We've been doing a lot of work recently about how risky these assets are and what the risk of loss is to the Fed. It turns out that it's very hard to generate scenarios in which the Fed has any meaningful risk of loss.

MR. HOENIG. I have no problem with that. What I'm thinking about is, if we do define a new regime, how we conduct policy. How are we tying ourselves down now relative to what we might want to do in the future in moving these assets on and off our balance sheet? I think that the more flexibility we have in moving them out, the more flexibility we have in any new regime we put forward, and to me that's important.

CHAIRMAN BERNANKE. Governor Kohn, did you have a comment?

MR. KOHN. A comment and a question. One comment, to follow up on your comment, Mr. Chairman, to President Lacker—I think there's pretty good evidence that there are liquidity strains in the market, beyond just credit strains, impinging on the price of these securities. One piece of evidence I would cite is the difference between on-the-run and the off-the-run Treasury security rates, which have gapped out by 40 or 50 basis points even from—well, I'm not even sure where they are relative to '98, but I think they're at record levels. The unwillingness of people—by “people” I mean market makers—to take positions and to do trades—their caution—is affecting the pricing of all kinds of securities well beyond the credit risk, and obviously there's no difference in the credit risk in on-the-run and off-the-run Treasury securities.

MR. DUDLEY. Cash bonds versus derivatives, for example.

MR. KOHN. Right. The point that Bill made yesterday was that the equivalent things are selling at very different rates and no one is doing the arbitrage. Second, I like the model that Bill just described in which the Federal Reserve supplies liquidity but the private sector plus the Treasury takes the credit risk. I think that puts us in the right place and puts the taxpayer in the right place. So I think it's a good idea to get this thing working and look for other opportunities to use it with the agreement of the Treasury. We can't do it by ourselves.

My questions are that I thought we had some feedback along two lines I'd like to hear your comment on. One is that AAA wasn't enough, that when we started this we thought doing just AAA tranches would restart the markets. So comment on that. The other question is about the nonleveraged purchasers of this paper. We're not really catering to them, and will it be successful soon?

MR. DUDLEY. Okay. On the AAA—it is really for specific classes. I think we've heard that somehow the AAA would not be sufficient mostly from the auto loan area. It's hard to judge how credible that is, given that the AAA is the big bulk of the capital structure. So if you're getting good financing for most of the capital structure, it's hard to believe that you can't pay people at the bottom of the capital structure a high enough rate to induce them to do that. So I think I'm a little skeptical that this is true. I think that this program will be successful even if we confine it to just AAA.

MR. PARKINSON. Even of those who are saying that today they're having trouble not only placing the AAA but also placing the other tranches, a number say that, if you could start pricing the AAA tranche, that would make placing the others a lot easier. Basically you'd be determining how much of the spread income from the underlying assets has to go to the AAA, and that tells you how much you have left to compensate the lower rated.

MR. DUDLEY. You can figure out the economics better once you know how much you have to pay for that 75 percent of the capital structure.

MR. KOHN. On the nonleveraged?

MR. DUDLEY. I don't think this program addresses the nonleveraged, but I think there's not much nonleveraged interest in this sector at this point.

MR. PARKINSON. Well, that's the fundamental problem. Again, some of them were these classes of investors, who are no longer around. Even if they were around, I don't think we'd want them around—the SIV and securities lenders et cetera. But then you have the pension funds, the insurance companies, and so forth that are not in the market, and this really doesn't do anything at least initially to bring them back to the market. We have scratched our heads at some length trying to figure out a program that the Federal Reserve could develop that would entice them into

the market. But I think the fundamental problem is that our tool is the ability to lend, and if we're lending, there has to be a borrower. If you're talking about pension funds or life insurance companies that are not leveraged investors, it's just not clear how we can do much to help them get enthusiastic again about buying these securities. In the longer run, the agenda of providing liquidity to markets has to be joined with the reform agenda and figuring out what we can do to bring back confidence in structured credit products by those types of investors. There are lots of recommendations out there—from the President's Working Group and the Financial Stability Forum—and SIFMA came out with a long study about restoring confidence in the securitization markets. All of that, unfortunately, is going to take a while to implement, and as with so many other things these days, we're in uncharted territory. Nobody knows for sure, I think, whether any of those things, even though they make sense, will really be sufficient to bring those investors back. But as much as we try to come up with programs to address that, it seems at the moment to be beyond our power.

MR. DUDLEY. May I add just one thing to that? It's also not clear to me that the private sector won't be clever enough to take these things and package them into securities that have the equity and the leverage embedded in them and sell them to people who want to get high rates of return. It might be a pretty interesting proposition.

CHAIRMAN BERNANKE. President Lacker.

MR. LACKER. So are there any other constraints of a legal or regulatory nature on participants in this market? Is there anything that keeps any hedge fund in the world from buying these things?

MR. DUDLEY. Yes, we're still working on—

MR. LACKER. No, no, no, not the program—the underlying securities.

CHAIRMAN BERNANKE. In general.

MR. LACKER. In general. Anyone could buy them, right?

MR. DUDLEY. The issuers have to basically conform with the TARP executive comp restrictions.

MR. LACKER. No, no, no. Even not participating in the program. There are no limitations on the investors who can participate, for example, in the market for asset-backed student loans.

MR. DUDLEY. Well, there is in this program, in that we're trying to figure out the right way of restricting it to U.S. investors.

MR. LACKER. Excuse me. The program doesn't exist yet. Right now, today, is there anything that restricts a hedge fund in London from buying an asset-backed security.

MR. DUDLEY. I don't think so—not that I'm aware of.

MR. PARKINSON. No.

MR. LACKER. The reason I ask—the point that I'm making—is that you can reference theories but, at the end of the day, it's not just those predictions. It's the whole range of things about the theory. We haven't, in this, seen many theories put on the table, and the ones that have been—things like cash-in-the-market pricing—just don't seem to match up well with the facts. There's a gigantic, billions of dollars worth of investors out there who have the capability of buying any of this stuff. In Treasuries, people are capable of arbitraging that on-the-run and off-the-run thing. To explain this by appealing to some market segmentation seems really weak in this environment. You know, I welcome discussing theories under which these are Pareto improving programs, but I haven't seen one that's convincing yet.

MR. PARKINSON. I think it comes back to the point that Bill made earlier. If you're a hedge fund, even LIBOR plus 500 is still not a rich enough return to that hedge fund unless you can borrow against those securities and leverage it up into a higher return. And until 18 months ago you could have gotten the financing from Deutsche Bank, the Swiss banks, or any of our fine U.S. banks; but it doesn't appear at the moment that any of them are terribly interested in lending on a secured basis even to the strongest of hedge funds. They're simply hiding somewhere.

MR. DUDLEY. I think we're in disequilibrium. We're in a disequilibrium in which the dealers and banks that used to do this lending are in the process of dramatically shrinking their balance sheets. Goldman announced their fourth quarter today. They shrank their balance sheet by 18 percent from the end of their third quarter to the end of their fourth quarter. That's certainly not any notion of equilibrium in the marketplace, and I think that is what's causing the stresses in the securities markets.

MR. LACKER. Are we preventing equilibration? I mean, what are we doing? We're in the middle of an adjustment process, it takes some time.

MR. DUDLEY. The way I look at it, President Lacker, is that the deleveraging process is happening at a very rapid rate, and that speed can cause quite a bit of damage to financial conditions and, therefore, to the real economy. To the extent that we intervene and slow down the pace of that deleveraging, we can probably mitigate the degree of damage to financial conditions and to the real economy. That's how I think about it.

MR. LACKER. I look forward to seeing the model.

MR. FISHER. We're bridging.

MR. DUDLEY. We're bridging—exactly.

CHAIRMAN BERNANKE. President Lacker, I guess there are at least a couple of theories you could have. One of them has to do with capital. If you think that certain types of intermediaries have specialized knowledge and their ability to lend depends on their capital, then there are informational asymmetries in which clearly exogenous destruction of part of that capital is going to affect equilibrium outcomes in the market. That's one possibility. The other class of models has to do with liquidity, where you have thick or thin markets depending on "I trade if you trade" and so on and you have markets in which nobody is trading and so no one wants to be the first to enter. By becoming a marketmaker, you can perhaps generate more activity. I think there are some interesting perspectives out there.

MR. LACKER. I'm familiar with those models. We don't have time to discuss them now.

CHAIRMAN BERNANKE. No, we should discuss them off line. President Rosengren.

MR. ROSENGREN. The loss of the securitization market is really important, so I think this facility is a very important innovation. My question is, How important were the conduits to this market, and how confident are we that there will be structures to bring back the securitization market? Or are we basically bridging to these things going on bank balance sheets or other types of financial intermediaries? How do you see this? I guess the question is, From your perspective, what is this a bridge to?

MR. PARKINSON. I think the conduits were more important in some asset classes than others. In credit cards, for example, the conduits were pretty important. But even there they were important in recent years. I think they were important in recent years because spreads kept on coming down and down and deterred the real money investors that traditionally invested in these products—they were no longer interested. Yet the underwriters were able to keep the game going at those low spreads by resorting to selling to conduits and securities lenders and those sorts of things.

So over time, if we could deal with some of the issues around confidence and ratings and the other things that may be deterring the real money investors from entering the market, there is a hope of bringing them back and going back not to 2007, when it was conduits and that kind of stuff, but to, say, 2002, when you had real money investors buying these securities.

MR. DUDLEY. Also how you go through the cycle and what the loss experiences on these securities are going to be are hugely important. If this is the worst recession in 30 years, that's going to be a very interesting data point in terms of what the credit losses on the securities are. If it turns out that the credit losses are low and the securities are robust, I think that will create more demand for these securities over time. You have to weigh that, of course, in terms of what leverage we are going to require financial institutions to carry and how leveraged they can be, and where we set those two standards will determine what goes through the capital markets versus what goes through depository institutions.

CHAIRMAN BERNANKE. President Hoenig.

MR. HOENIG. Do we have in mind a limit as to how broadly we would make the credit facility available?

CHAIRMAN BERNANKE. Currently we have the class of securities. We're looking at consumer and small-business ABS.

MR. DUDLEY. The Treasury has basically committed \$20 billion of TARP, and we think that's going to fund a program of roughly \$200 billion of credit cards and auto loans and so on.

MR. HOENIG. I ask that question because there are some very important industrial companies that have been financing at fairly attractive rates and are now going to have to refinance that at far less attractive rates. I think that will have every bit as significant an impact on the

economy as the mortgage-backed securities. So unless we think through how we limit this, I think there's a legitimate case for just about anything.

MR. DUDLEY. Well, I'm sympathetic with your view that broader is better than narrower because of all the boundary issues that one creates. I think we all are sympathetic with that.

MR. FISHER. For example, would you consider AAA industrial-grade credits?

MR. DUDLEY. I think we would consider it. The real issue is the Treasury's willingness to use TARP money. We can't do any of this without the Treasury's commitment, so we're somewhat constrained in our ability to broaden it in the dimensions that we might want to broaden it.

MR. PARKINSON. We've heard from practically everyone that's not within the class of consumer ABS and SBA loans. We have heard from the commercial real estate people and from the auto dealers about their floor plan loans; we have heard from the banks that would like to get the motorcycles and leases. But also corporate loans—the CLO (collateralized loan obligation) market also is shut down. So there is no question. Again, we're in a hard place because, if we weren't constrained in part by the TARP capital and our concerns about our balance sheet, we would maybe be able to have a much broader program in which we didn't have to make these kinds of decisions. But given that there's only \$20 billion of TARP capital and we're willing at this point to go only to \$200 billion, you can't really say we'll take all these different asset classes.

MR. HOENIG. Which makes my point. We really have to focus on fixing the intermediary process in the United States. There's no limit to this. The refinancings coming due are huge.

CHAIRMAN BERNANKE. That's agreed and understood. Again, the limits include the TARP capital, our own willingness with respect to the balance sheet, and so on. There really are limits to what this can accomplish. President Plosser.

MR. PLOSSER. But in some sense, just to follow up on this point, the limits are what is really important here because, as long as we don't define some limits and we just say limited by TARP capital, well, that doesn't really answer the question. As long as the markets act as if we or someone else is going to step in and rescue them from any more lending arrangements they happen to be facing, the incentives for the intermediary system to repair itself or to gradually adjust are going to be limited. I'm worried about the lack of definition about what constitutes a legitimate market or instrument or firm that we wouldn't save.

CHAIRMAN BERNANKE. That's a good point, and I think one thing that is a problem now is the transition between Administrations. We'll soon have a new Treasury Secretary and a new Administration. I think it's very important—I've discussed this with Tim Geithner and others—that as soon as possible we lay out a broad strategy. What are the components of our strategy? What are we going to do going forward?

MR. PLOSSER. And what are the limits to it?

CHAIRMAN BERNANKE. Well, implicitly, what are the limits to it? How are we going to approach the banking issue? What are we going to do about failing firms? How are we going to try to address the securitization markets? I think the more clarity we can provide—I fully agree with the critique that lurching is very bad, and we need to provide an overview. There is a lot of sympathy from the new Treasury to do that, and we just have to overcome the fact that we're in a transition at the moment. But I take that point. It's a very good point.

MR. PLOSSER. By the way, Mr. Chairman, I want to thank you. I thought your exchange of letters with Senator Dodd, I guess it was, over the automobile issues was well done.

CHAIRMAN BERNANKE. I don't think you read it, though. [Laughter]

MR. PLOSSER. Excuse me, I read about it.

CHAIRMAN BERNANKE. Other questions for Bill?

MR. LACKER. I just want to raise two things that worry me. One is that, when these programs are small, you subsidize  $X$  percent of the credit market. The other  $1$  minus  $X$  percent, the effect on their rate of return, their borrowing costs, probably is small. But when  $X$  gets near—I don't know where it is now— $\frac{1}{3}$  or  $\frac{1}{2}$ , then our subsidization is raising borrowing costs for everyone who doesn't get money.

CHAIRMAN BERNANKE. It's not clear. The commercial paper market might be a counter-example to that.

MR. LACKER. There are some models in which that is the case. It's not obvious how we rule them out. The second thing is—I don't know how you evaluate this—you must be thinking whether this means that in every moderate-sized recession henceforth we'll view the Federal Reserve's best policy as extending—

CHAIRMAN BERNANKE. It's not a moderate recession, and it's not a normal financial downturn.

MR. LACKER. Right. Every recession of the size we've now seen 3 of in the last 50 years. So every recession of that size?

CHAIRMAN BERNANKE. You have to have a deep recession and a financial crisis. That's pretty unusual. Twice a century, or once a century so far.

MR. DUDLEY. I'll give you an example—the VIX has never been this elevated this long since the Great Depression.

MR. LACKER. So you're saying that you're not concerned about setting up expectations for the next recession.

CHAIRMAN BERNANKE. Certainly I'm concerned. I'm very concerned. But I'm also concerned about getting through this recession. So those are the tradeoffs.

MR. LACKER. Okay.

CHAIRMAN BERNANKE. Other questions about the program? If not, let me just tell you that I'm going to be doing a call with the press at 3:15 in the Special Library. Any FOMC member who has nothing else to do and would like to join is welcome. Michelle has given your Public Affairs people the phone number so that they can listen in, and we'll see how that goes. The next meeting is Tuesday-Wednesday, January 27-28. The meeting is adjourned. Thank you.

END OF MEETING