Meeting of the Federal Open Market Committee on August 7, 2007

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, August 7, 2007, at 8:30 a.m. Those present were the following:

Mr. Bernanke, Chairman
Mr. Geithner, Vice Chairman
Mr. Hoenig
Mr. Kohn
Mr. Kroszner
Mr. Mishkin
Mr. Moskow
Mr. Poole
Mr. Rosengren
Mr. Warsh

Ms. Cumming, Mr. Fisher, Ms. Pianalto, and Messrs. Plosser and Stern, Alternate Members of the Federal Open Market Committee

Messrs. Lacker and Lockhart, and Ms. Yellen, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

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

Messrs. Connors, Evans, Fuhrer, Kamin, Rasche, Sellon, Slifman, Tracy, and Wilcox, Associate Economists

Mr. Dudley, Manager, System Open Market Account

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

Messrs. Clouse and English, Senior Associate Directors, Division of Monetary Affairs, Board of Governors

Ms. Liang and Mr. Reifschneider, Associate Directors, Division of Research and Statistics, Board of Governors

Messrs. Dale and Reinhart, Senior Advisers, Division of Monetary Affairs, Board of Governors

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

Mr. Meyer, Visiting Reserve Bank Officer, Division of Monetary Affairs, Board of Governors

Ms. Dykes, Project Manager, Division of Monetary Affairs, Board of Governors

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

Mr. Driscoll, Economist, Division of Monetary Affairs, Board of Governors

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

Mr. Connolly, First Vice President, Federal Reserve Bank of Boston

Messrs. Judd and Rosenblum, Executive Vice Presidents, Federal Reserve Banks of San Francisco and Dallas, respectively

Ms. Mosser and Mr. Sniderman, Senior Vice Presidents, Federal Reserve Banks of New York and Cleveland, respectively

Mr. Cunningham, Vice President, Federal Reserve Bank of Atlanta

Mr. Chatterjee, Senior Economic Adviser, Federal Reserve Bank of Philadelphia

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

Mr. Weber, Senior Research Officer, Federal Reserve Bank of Minneapolis

Transcript of the Federal Open Market Committee Meeting of
August 7, 2007

CHAIRMAN BERNANKE. Good morning, everybody. We start off today with some welcomes and farewells. I would first like to welcome Eric Rosengren, the new President of the Federal Reserve Bank of Boston.

MR. ROSENGREN. Thank you.

CHAIRMAN BERNANKE. I have known Eric for about twenty years. We used to be squash partners. I won't say who won. We know who wins now. [Laughter] I admire Eric—he has been a multitasker: He has been very successful as a researcher and as a bank supervisor, and he is no slouch with respect to monetary policy. So we look forward to your contributions, Eric.

MR. ROSENGREN. Thank you.

CHAIRMAN BERNANKE. Sadly, today we have to say farewell to President Michael Moskow of Chicago. Michael has sat at this table since 1994, which we have calculated is a total of 104 FOMC meetings. Mike has been involved in public policy off and on since 1969 in many capacities, and he has seen both the good times and the bad times. We will have a luncheon today after the meeting to honor Mike, but let us memorialize in the transcript that we thank him for his many contributions and wish him the very best. [Applause]

MR. MOSKOW. Thank you, Mr. Chairman. I will make some comments later on, but I just want to add that I counted 104 meetings, too. [Laughter] It has been a privilege and an honor to serve on this Committee, and I will miss the intellectual stimulation, the camaraderie, and the spirit of doing what is best for the American people. Thank you.

CHAIRMAN BERNANKE. Today is also Vincent Reinhart's final FOMC meeting. Vince went to work at the New York Fed in 1983 and came to the Board—

PARTICIPANT. Is he here?

MS. SMITH. He's coming.

CHAIRMAN BERNANKE. He's coming. Well, he gets docked for... [Laughter]

MR. KOHN. Make sure he submits a leave card. [Laughter]

CHAIRMAN BERNANKE. Well, let me make a couple of other announcements, and then we'll move on. First of all, in the days when Don Winn was the head of the Congressional Liaison Office, it was customary for him to present during the luncheon after the meeting an update on congressional matters. Laricke Blanchard, whom I think most of you know, is now the head of the Congressional Liaison Office. We would like to begin that tradition again. We have lunch, of course, for President Moskow, but if there are a few minutes after the adjournment, Laricke will provide us with a short update. He has already circulated a written summary. So if we don't get to the update, at least we will have the summary. In the future we are going to try to have a congressional update at every meeting.

Second, on communications, the subcommittee sent a memo to the Committee on July 25. Broadly speaking, the recommendations were that we should now focus on expanding the FOMC projections as our next step in increasing transparency, that we submit trial-run projections in September as we did for August and live projections, so to speak, for the October meeting, and that we vote in October to approve this step. My sense from June was that there was a general agreement on this approach. We would like to give you several more opportunities to comment and to discuss details. We will poll you between now and the September meeting on remaining issues. In September, there will be an agenda item for final discussion of various issues that might come up. In October, we will have another opportunity to talk about it. I would like, if possible, to take a vote at the October meeting, which would be followed by a roll-out about three weeks later, with a press release and with a speech by me, and then by the information in the minutes that would come out. So that is where we are. Again, we will have an opportunity to talk about the program on an agenda item in September.

The subcommittee also recommended, based on the discussion we had earlier, that we vote on the entire statement. I would like to make that also an agenda item in September. I have asked Scott Alvarez, our General Counsel, working with Monetary Affairs, to provide us with a memo that will address two issues. First, what is the legal status? What specific action do we have to take to allow the Committee to vote on the full statement? Second, it would be worthwhile to have them take one more look to see whether there are any unintended consequences. For example, would this inhibit us in any way if there were intermeeting moves or any special steps being taken? But the plan would be to have a brief discussion in September on this memo, to take a vote, and, if we agree, the full statement would be subject to a Committee vote. Today, let's stay with the old process, which still allows a vote on the balance-of-risk assessment.

Let me raise an item of business here. Since Vince Reinhart clearly has disappeared, we need to vote for a replacement. We need to nominate and elect a new secretary and economist to the FOMC whose position would be valid until the first regularly scheduled meeting of 2008. Would you like to make a nomination?

MR. KOHN. I nominate Brian Madigan, with pleasure.

CHAIRMAN BERNANKE. Other nominations? [Laughter] If not, all in favor say "aye." Opposed? Carried unanimously. Congratulations, Brian.

MR. MADIGAN. Thank you very much.

CHAIRMAN BERNANKE. Okay. I will wait until Vince appears. He may be looking at financial markets this morning, and so we will wait until he appears to bid him farewell. Let's go ahead, then, to the authorization for Desk operations and turn it over to Bill Dudley. Bill?

MR. DUDLEY.[1] Thank you. As you all know, there has been considerable financial market turbulence since the last meeting: Problems in subprime mortgage credit have persisted and intensified; credit-rating agencies have begun to downgrade asset-backed securities and CDOs (collateralized debt obligations) that reference subprime debt; the problems in subprime have spread into the alt-A mortgage space and into parts of the prime mortgage market; corporate credit has been infected, with high-yield bond and loan spreads moving out sharply; and stock prices have faltered. Although markets generally have been functioning well in terms of liquidity and the ability to transact, there have been some important exceptions. The nonconforming residential mortgage market and the structured-finance product markets—especially the CDO and CLO (collateralized loan obligation) markets—have been significantly impaired, and there are concerns about the ability of some asset-backed commercial paper programs to continue to source funding via that market. As a consequence, market expectations with respect to monetary policy have shifted sharply, with market expectations consistent with considerable monetary policy easing over the next year. Market participants are worried about the effect of tightening credit standards on housing and about the deterioration in the market function in structured finance, which could broaden and be self-reinforcing, ultimately damaging the macroeconomy.

I am going to be referring to this handout as we go through these comments. In tracing the source of the turmoil that we have experienced recently, we find that the deterioration of the subprime mortgage sector continues to play an important role in several ways. First, the deterioration in underlying credit quality continues unabated. As shown in exhibit 1, delinquencies of more than sixty days for recent ABX index vintages have continued to move higher, and the pace of deterioration—measured by the steepness of the curves—has, if anything, worsened. Note that the newest vintage—07-2, so the second half of 2007—does not show any benefit from improved underwriting standards. That stems mainly from the fact that the pipeline to build these securities is relatively long—with the average loan referenced by this index more than six months old at this point. It also may reflect the fact that this newest vintage gets—in contrast to earlier vintages—less benefit from earlier home-price appreciation. As a consequence of this poor credit performance, ABX spreads have continued to widen sharply. This is shown in exhibit 2, which shows the performance for ABX BBB- tranches across vintages, and exhibit 3, which shows the performance for the various tranches of the 07-1 vintage. The deterioration in the

[1] Materials used by Mr. Dudley are appended to this transcript (appendix 1).

higher-rated tranches has been much more severe than earlier in the year. In part, this greater deterioration reflects the fact that loss estimates have been trending higher, putting the higher-rated tranches more in harm's way. It also reflects efforts to hedge subprime risk by going short these indexes by people who can't liquidate securities easily. Translating these ABX spreads back into price, July was a very rough month for ABX. Price declines of 20 points or more occurred in the ABX BBB- tranches of some more-recent vintages. Second, the disturbing delinquency trajectories shown in exhibit 1 have caused the rating agencies to downgrade a significant number of residential asset-backed securities and CDOs that have exposure to the subprime sector. However, most of the downgrades apply to vintages before 06-2. For more-recent vintages, the loss experience is worse but still hard to estimate. This means that many more downgrades lie ahead. Third, some of the credit-rating agencies have made changes to their structured-finance rating models. That, combined with huge marked-to-market losses even in highly rated subprime tranches, has led to a fundamental reevaluation of what a credit rating means and how much comfort an investor should take from a high credit rating on an opaque structured-finance CDO or CLO product.

The problems in subprime have spread into other mortgage markets, including alt-A, certain types of prime residential mortgage products, and commercial mortgage-backed securities (CMBS). Countrywide, for example, announced a deterioration in its second-lien prime mortgage book. Meanwhile, American Home Mortgage, which had operated primarily in the alt-A and nontraditional prime mortgage space as both a large monoline mortgage issuer and a REIT investor, was forced to shut down its operations last week and filed for bankruptcy yesterday. Market liquidity for nonconforming residential mortgage products is poor, and this has contributed to a further tightening in underwriting standards. For example, a number of mortgage originators indicated that they will no longer offer 2/28 and 3/27 adjustable-rate mortgage products, and some have indicated that they will not buy any alt-A mortgages originated by brokers. At the same time that we have seen turmoil in the subprime market, it has spread into the corporate sector as well. Credit spreads in the corporate sector have also widened sharply. For example, in July, high-yield corporate bond spreads widened about 150 basis points (see exhibit 4). Similarly, the spreads on key hedging indexes that reference credit default swaps on corporates have also gone up sharply. For example, in July the spreads on three of these major indexes rose nearly 200 basis points. This is illustrated in exhibit 5. The ITRAXX crossover index references fifty European nonfinancial names with ratings below BBB- or at BBB- and on negative watch. The high-yield CDX index references credit default swaps on 100 high-yield U.S. names. The LCDX index references credit default swaps on 100 U.S. leveraged loans.

In contrast to the residential mortgage sector, corporate credit fundamentals still look good. In particular, as shown in exhibit 6, corporate default rates for both investment-grade and below-investment-grade borrowers have been at very low levels. Of course, as we saw in the subprime market, readily available credit can depress default ratios. One should expect that the tightening of credit standards in the corporate sector would generate some rise in default rates independent of other developments. Nevertheless, other measures also underscore the positive fundamentals of the corporate sector—in contrast to the poor fundamentals in residential mortgages. For example, global growth has been unusually strong with little volatility, and corporate profit margins are unusually wide, both in the United States and elsewhere. Moreover, the slowdown in profit growth expected for the United States has been milder than anticipated. This can be seen in the rise in the median equity analysts' bottom-up earnings forecasts for the S&P 500 companies for 2007, which is shown in exhibit 7. It was falling through about April. Since then, expectations for this year have actually increased, and they have been increasing recently, even over the past month.

So how does one explain the contagion to corporate credit from the subprime market given the disparity in fundamentals between these two sectors? Although the answer is complex, one factor stands out: There has been a loss of confidence among investors in their ability to assess the value of and risks associated with structured products, which has led to a sharp drop in demand for such products. The loss of confidence stems from many sources, including the opacity of such products; the infrequency of trades, which makes it more difficult to judge appropriate valuation; the difficulty in forecasting losses and the correlation of losses in the underlying collateral; the sensitivity of returns to the loss rate and the degree of correlation; and the problem that the credit rating focuses mainly on one risk—that of loss from default.

The CLO and CDO markets have facilitated the transformation of low-rated paper—for which there is a limited investor appetite—into a high proportion of high-grade-rated debt. For example, in a typical CLO structure, the underlying loan quality averages a rating of about B. Yet through the magic of structured finance and the corporate rating agencies, the resulting CLO tranches are rated predominately investment grade. Exhibit 8 shows the structure for a representative CLO: More than two-thirds is AAA-rated debt, and 87 percent is investment grade. The loss of confidence among investors in the ability to assess the value and risks associated with this structured product has led to a sharp drop in CDO and CLO issuance. As shown in exhibit 9, CLO and CDO issuance plummeted in July. This is very important because the CLO and CDO markets represent the bulk of the demand for non-investment-grade debt. With this demand falling away at a time when the forward supply of high-yield corporate loans and debt exceeds $300 billion by some measures, a huge mismatch between demand and supply has developed. The underlying problem is that the depth of the market for non-investment-grade rated loans and debt—excluding CDO and CLO demand—is far shallower than the market for investment-grade products.

Where do we go from here? Presumably buyers and sellers in the corporate sector are in the process of finding appropriate market-clearing prices. But it may take time for the market to settle down, especially given the August doldrums that are upon us. Moreover, we still may have further scope for market dislocations. After all, some single-strategy hedge funds that emphasize corporate credit may have been caught out by the sharp widening in spreads that has occurred over the past few weeks. When such results become known, investor redemptions could follow—leading to forced selling to generate the cash to fund these redemptions. In addition, the asset-backed commercial paper market is very skittish in two areas—structured investment vehicles and extendable commercial paper programs. Yesterday at least two commercial paper programs were subject to extension. It is not clear whether or to what degree these extensions will further unsettle the commercial paper market, but that is clearly a risk.

The effective shutdown of the CDO and CLO markets has, in turn, raised questions about the sustainability of the strong bid by private equity firms to conduct leveraged buyouts. This uncertainty has undoubtedly been a factor behind the recent weakness of the U.S. stock market. The importance of the buyout bid can be seen in the relative underperformance of the Russell 2000 index compared with the S&P 500 index during the past few weeks (see exhibit 10). The problems in corporate credit and the virtual shutdown of the CLO and CDO distribution mechanism have caused investors to reevaluate both the business opportunities and the risks associated with large investment and commercial banks. Investment bank and commercial bank shares have underperformed the broader stock market indexes. In addition, as shown in exhibit 11, the CDS spreads for the major investment and commercial banks have widened considerably over the past month. The CDS spreads for financial guarantors have widened as well, even though the exposures of these firms appear to be concentrated in the most senior portions of the subprime and structured-finance debt structures. Perception of the strength of the financial guarantors could prove important given the key role that they play in some markets, such as the municipal debt sector, that lie far afield from either the subprime mortgage market or the corporate debt markets.

Only in the past few weeks have the problems in the subprime and corporate debt markets led to broader risk-reduction activities. These risk-reduction efforts are similar to the adjustments that we saw in late February and early March. A matrix that shows the correlation of returns across different asset classes over the past few weeks (see exhibit 12) looks very similar to the correlation matrix that we saw following the late February risk-reduction period (see exhibit 13). It looks very different from the very calm period we had from late March through the first part of July, which is shown in exhibit 14. But the adjustments are not uniform across markets. In some ways, the risk reduction that we are seeing this time is a little more U.S. specific, a little more corporate credit specific, and a little more mortgage specific. For example, as shown in exhibit 15, implied volatility in interest rate swaps—the SMOVE index—and in equities—the VIX index—has climbed well above the late February peak. In contrast, the foreign exchange markets have experienced a less-pronounced rise in volatility.

In the United States, the turmoil in financial markets has been accompanied by a shift in monetary policy expectations. Exhibit 16 illustrates the Eurodollar futures strip. As can be seen, the futures curve has shifted down about 40 basis points since the last FOMC meeting. We are back where we were before the May FOMC meeting. Currently, market prices imply a bit more than 50 basis points of easing by year-end 2008. The shift in expectations appears to reflect, in part, a revival of the "downside risks to growth" idea rather than that the Federal Reserve will absolutely cut interest rates. This can be seen in several ways. The shift in market expectations implicit in Eurodollar futures yields has not been accompanied by a substantial change in dealer forecasts. As shown in exhibits 17 and 18, which show the federal funds rate projections of the primary dealers before the June and the current FOMC meetings, the average dealer forecast and the range of dealer forecasts have not changed much over the past six weeks. Instead, a gap has opened up between the average dealer forecasts, represented in the exhibits by the green circles, and the forecasts implicit in market yields, represented by the horizontal black lines. The most recent dealer survey does not capture the minor forecast changes that occurred late last week. For example, two dealers with tightening forecasts pushed back the timing of the first tightening, and one dealer with an easing forecast moved it closer and increased the magnitude (not shown in exhibits 17 or 18). The dealers' forecasts are modal forecasts. In contrast, the expectation embodied in market yields represents the mean of the distribution of expected outcomes. Presumably, it includes some possibility that the current market turbulence could lead to a weaker growth outcome and a reduction in the FOMC's federal funds rate target. Options on Eurodollar futures contracts 300 days forward show a sharp downward skew in the distribution of rates (see exhibit 19). Although the mode is at 5.25 percent, the same as it was before the June meeting, the probability distribution has shifted down drastically below that 5.25 percent mode. So it may not be correct to say that market participants now expect much more monetary policy easing. Instead, a more proper characterization might be that the perceptions of downside risks have reemerged, and this characterization is reflected in the downward skew below what is still a 5.25 percent modal forecast for the Eurodollar rate.

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

CHAIRMAN BERNANKE. Thank you for a very good report, Bill. Are there questions? President Poole.

MR. POOLE. I have two questions. First, does the New York Fed have what I might call material nonpublic information about firms that would suggest that there is more difficulty than we see in the newspapers? That is one question. The other question has to do with the distribution of views among dealers about probable Fed policy. There is obviously an arbitrage relationship between, let's say, a two-year Treasury and these futures markets. My sense is that probably what is going on here—and I will use the two-year as the example—is a flight to safety. People are trying to shore up their liquid assets in case they have to sell some stock into the market, so they are trying to hold more of that. But there is no easy way for those on the other side of that market to go short and push that yield back to where the best-informed people think it will be once we are past this turmoil. So what we may be seeing is less a reflection of expectations about future policy actions than a flight to liquidity as a desperate effort—"desperate" may be too strong—to shore up the liquidity of a balance sheet, and there is no easy way for people to go on the other side. Those are the two questions I have.

MR. DUDLEY. Let me take the second question first. You know, it's certainly possible that, when people want to hedge their risk in areas where they can't easily sell the assets, they would buy something that will perform well if those assets continue to deteriorate. One thing to do would be to buy Eurodollar futures or Treasury securities. So, at least temporarily, those yields may not fully reflect what the market expectations are. That said, the Eurodollar market is a very deep market, and if one thought that the Fed was not going to do what the market priced in, there certainly would be the ability of people to take the other side of the bet. So it's sort of hard to know exactly how big or long-lasting the effects that you are talking about could actually be. In the short run, that kind of thing certainly goes on. If I can't sell the bad asset that I hold, then I will buy something that will perform well if the bad asset deteriorates. People actually do talk about that on the trading side.

As far as the issue of material nonpublic information that shows worse problems than are in the newspapers, I'm not sure exactly how to characterize that because I guess I wouldn't know how to characterize how bad the newspapers think these problems are. [Laughter] We've done quite a bit of work trying to identify some of the funding questions surrounding Bear Stearns, Countrywide, and some of the commercial paper programs. There is some strain, but so far it looks as though nothing is really imminent in those areas. Now, could that change quickly? Absolutely. For example, one question that we're following with Bear Stearns is what their clients do in terms of continuing to want to do business with them. Obviously, if people start to pull back in their willingness to do business with Bear Stearns, the franchise value of the company goes down, and that exacerbates the problem. One thing that we have heard about Bear Stearns is that they have approached a number of major commercial banks about a secured line of credit. We don't know what the outcome will be, but they are clearly trying to get even better liquidity backstops than those they have in place today. But as far as we know, they have enough liquidity—and Countrywide as well at this moment.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Let's go back to your previous comment on the second question of President Poole. Another standard reaction is to sell things that are more liquid when you can't unload things that are less liquid. One thing I am curious about—and I don't know if we have the data, but this is the question—in terms of CDO/CLO issuance, do we know how much is held by non-U.S. investors? For example, I have been told—and I don't know if this is correct—by a senior partner at Goldman that, since '03, most of the mezzanine CDOs were issued or sold to Asians or to Europeans. I'm wondering if we are aware of any tripwires by which we might have overseas the kind of reaction I just described, which is selling assets that might be more liquid to cover the illiquidity of something they're stuck with. I would be interested to do a little work, if we can, on CDO issuance and how much is held here. It seems to me to be common sense that, given that surplus liquidity has come from abroad—and we have talked about the surplus of saving a great deal and the Chairman has talked about it a great deal—that may well be where a lot of this risk resides, and we should be aware of it. I would posit that probably the same is true for asset-backed commercial paper. It is really the CDO market not asset-backed commercial paper that I am most concerned about.

MS. JOHNSON. President Fisher, I have a tiny bit of information in that regard. Once a year there are surveys taken of U.S. liabilities to foreign holders, and they are done security by security. We went looking for the securities that had been downgraded—by Moody's I guess it was, or maybe it was both Moody's and S&P—in CDO packages to see if we could find them. We found a certain fraction of them in the survey, which meant that the others that we didn't find were not held abroad because the custodians didn't report them as foreign owned. Of the fraction of the securities that were actually found, 40 percent were owned abroad, which implied about a 10 percent ownership of all the downgraded securities. Not all of the securities, but all of the downgraded securities. A meaningful number—but not a huge number, not 50 percent, not more than half, but a fraction—were in the survey; of those, 40 percent of the total outstanding were what was held abroad. However, not all countries are forthcoming with what they own, and it is certainly possible that the system doesn't capture all foreign ownership. China, for example, is very unforthcoming. But our liability survey doesn't depend on their answering the questions; it depends on custodians answering the questions. So I would say it's significant, but I think I come away from this information thinking that perhaps we are exaggerating a bit how much of it is abroad.

MR. FISHER. It might be interesting to look at the issuance dates of those, if we were able somehow to analyze the issuance dates.

MS. JOHNSON. This survey, which we basically have received just recently, is dated June 2006. So there is always a lag of several months to a year in the information that you can get out of this survey. But the survey itself is very comprehensive.

MR. DUDLEY. Where the securities are held abroad is also very important. If they are held in a hedge fund that is highly leveraged, that is one thing. If they are held in a central bank reserve account, that is a small loss against all their other assets, so it wouldn't have any consequence. So if you talk to the dealers, they'll say, "Well, we know whom we sold the things to initially, but we don't know what happens after that." I would expect, though, that most of the stuff probably resides with the initial person because, as we have seen, these instruments are not particularly liquid and so I don't think that they pass on that far. If you did a survey of the dealers, you might be able to make some headway in terms of figuring out whom they sold them to originally. It might be a fair approximation of where they reside today.

MR. FISHER. I have one other quick question, and that is that I want to make sure I understand what you're saying. It seems to me from this presentation that this is not just a matter of price; it is also a matter of structure and covenants. Is that correct?

MR. DUDLEY. I guess I would characterize the situation as people having lost faith in the structured-finance product, especially the high-grade AA/AAA product that they thought was safe and therefore not subject to much market risk or liquidity risk. They found out otherwise, and so there is a total reevaluation of that market. As a consequence, since the vehicle that was used to turn non-investment-grade corporate debt and into investment-grade debt is sort of broken, now they have to sell a lot of non-investment-grade debt directly and find people who are willing to hold it. So I think about the situation as that demand has lessened at a time when supply, just by bad luck and timing, is exploding. The market should clear, because the fundamentals in the corporate sector are good as opposed to bad, but at a much higher price.

MR. FISHER. Thank you for an excellent presentation.

CHAIRMAN BERNANKE. President Rosengren.

MR. ROSENGREN. The credit derivative swaps for Countrywide and some of the other mortgage providers spiked up very appreciably at the end of last week, and they were accompanied by announcements that the companies were having no trouble rolling over their financing. Some of the Boston hedge fund managers have observed that one dependable correlation has been that the announcement of no problem seems to be highly correlated with the actual problem's occurring with a lag of one to two weeks. [Laughter] I am curious whether you are worried about the possibility that Countrywide and some of the largest mortgage lenders might have difficulty in the next two weeks rolling over financing, which would obviously have a broader impact.

MR. DUDLEY. They certainly could. Their problem is that they have a very large mortgage finance subsidiary and a small thrift. If the mortgage finance subsidiary were in the thrift, then there would be other ways of financing all their assets. So far they are able to maintain their liquidity. But a lot of this is about perception, and that could change at any time. The good news about Countrywide is that people view them as having a strong franchise. They also have a very large loan-servicing portfolio, which might actually be worth a bit more because the duration of those mortgages is extending. They are not just a mortgage originator whose business has evaporated; they also have other parts of their business, which I think people view as potentially quite valuable.

CHAIRMAN BERNANKE. President Moskow.

MR. MOSKOW. An excellent presentation, Bill. One area that you talked a bit about was the commercial paper market. That made me uneasy because this segment is different from the other segments of the market that you were talking about, and obviously that short-term financing is crucial to companies. I wonder if you could expand on your comments there.

MR. DUDLEY. Two areas of the asset-backed commercial paper market are being closely scrutinized, which means that a whole bunch of the asset-backed commercial paper market is fine, such as the asset-backed commercial paper with backstops—you know, credit card receivables. That area is fine; it is not a problem. One difficult area is the extendable commercial paper programs that are funding some of the stuff that is very illiquid right now. The risk is that investors, typically money market mutual funds, will look at the situation and say, "Gee, if they can't roll over commercial paper, my commercial paper investment will automatically be extended to a longer maturity." They are worried about the headline risk of that. They are also worried—and it is hard to know how worried—that there is no guarantee that the extended commercial paper would necessarily trade at par. If it traded below par, then they would have to worry about breaking the buck, which is the last thing they want to do. So the risk is that the investors, who are quite risk averse in the commercial paper market in this area, will pull back and that very pulling back will cause extension. That is what was happening yesterday. Apparently a couple of commercial paper programs were extended. Now, does extension mean anything really necessarily bad? It is not clear. It hasn't happened before, and so we really haven't experienced how this extension process is going to work. These programs are backstops in various forms. At the end of the day, the commercial paper holders should come out whole; but until that is demonstrated, you can imagine that the extensions could cause other people to pull back. So there is a risk of a cascading of extensions that has crossed all of these extendable commercial paper products. That is a risk. You know, it is an interesting tension right now because the large investors know that, if they don't roll, they'll probably be extended. So at the current time, most of them are continuing to roll so that they don't get stuck with extended commercial paper. But this situation is very fragile day to day.

The second area is more complex—structured investment finance vehicles that basically fund pipelines of highly rated CDO and CLO kind of stuff. I can't say I fully appreciate exactly how this structure works, but basically there is some risk that the collateral values of these structures could fall below certain thresholds. In that case, the securities would have to be liquidated. Again, commercial paper investors are saying, "Do I really want to see what this means?" So they are pulling back from that market as well. Of the two, the extendable commercial paper issue seems to be the more immediate one in the market's attention, but the SIV asset-backed commercial paper is also an ongoing issue.

MR. MOSKOW. Thank you.

CHAIRMAN BERNANKE. Are there other questions for Bill? If not, we need a vote to ratify domestic market operations.

MR. KOHN. I move we ratify those operations.

PARTICIPANT. Second.

CHAIRMAN BERNANKE. Objections? Vincent has come in. Welcome. We just want to acknowledge you.

MR. REINHART. Ever since you gave the guards guns, I didn't really have any choice.

[Laughter]

CHAIRMAN BERNANKE. We want to acknowledge your final meeting, Vincent. It has been six years since Vincent was elected Secretary and Economist to the Committee. You took that role only three or four weeks before September 11, and your steady hand during that crisis was invaluable. Unfortunately, against all good advice and after only eighty-two FOMC meetings—a record which to his credit he has achieved without prompting accusations of steroid use—[laughter] Vincent is insisting upon returning to civilian life. So today is an appropriate occasion upon which to express our gratitude, Vincent, for your sage advice, your thoughtful guidance, and your undoubtedly well-deserved admonitions to the Committee over the years. Vincent's legacy, of course, will live on in the meeting transcripts from his tenure, as the transcripts become public over the next few years. For example, in the May 2004 transcript, Vincent is caught using the words "cattle prods" in reference to a possible experiment involving bond market traders. [Laughter] In 2005, he suggested that the FOMC as a group was incapable of agreeing on something as straightforward as the color of an orange. [Laughter] Notwithstanding that, Vincent, the Committee does agree on this: You have our heartfelt thanks and our best wishes for the next stage of your career. Congratulations and many thanks. [Applause] Is there a rebuttal? [Laughter] If not, we can go to the economic situation, and I will call on David Wilcox.

MR. WILCOX. Thank you, Mr. Chairman. In putting together the Greenbook forecast for this meeting, we adjusted our outlook in five ways in response to the developments that Bill Dudley has just described. First and foremost in terms of its implications for real activity, we took on board the implications of the decline in the value of equities since the June Greenbook. Second, we adjusted our home-price forecast down a notch, both in response to slightly disappointing indicators of home-price appreciation during the second quarter and in recognition of the bleaker conditions in housing markets more generally, including the developments in the subprime mortgage market. In all, we took the level of home prices down 1½ percent by the end of 2008, with about one-third of that amount representing our response to the incoming indicators and two-thirds reflecting the other considerations. In combination and allowing for some relatively minor offsets, the reduction in equity values and home prices took about $1 trillion off the balance sheet of the household sector and weakened our outlook for consumer spending through the usual wealth-effect channels.

Third, we further adjusted our forecast of real PCE to allow for a direct effect of interest-rate resets. We estimate that 4.7 million variable-rate subprime loans are scheduled to undergo interest-rate resets over the next year and a half. If all these resets were to take full effect, they would result in extra interest payments cumulating to about $12 billion between now and the end of 2008. For several reasons, however, we think that $12 billion figure represents a loose upper bound on the likely effect of resets on consumption spending. For example, even in today's relatively more hostile financial environment, some households will succeed in refinancing into a prime mortgage with a lower rate; others will sell their property and become renters rather than bear the additional debt service payments; and some who remain in their homes with no refinancing will have the financial wherewithal to shield their spending from a dollar-for-dollar reduction in response to the increase in debt service payments. In light of these considerations, we took consumer spending down by half the amount of the reset-induced payments.

Fourth, we adjusted down our forecast for new-home sales to allow for the unusual restraint that the tightening in mortgage-borrowing conditions since the last Greenbook will likely impose on the demand for new homes. The adjustment we made this time followed similar downward revisions in March and June; together, these three revisions were calibrated to unwind the boost to mortgage originations that we think was provided by nonprime lending in 2005 and 2006. Overall, we took the trajectory of new-home sales down 6 percent this round—half in response to the mortgage developments and half in response to the disappointing pace of sales data for June. Having cut the pace of sales, we then also took down the rate of new construction in the forecast to keep inventories of unsold new homes from bulging too much further.

Finally, we trimmed our forecast for investment in equipment and software a bit on the theory that the increase in spreads that investment-grade and especially non-investment-grade firms now are facing might reflect greater uncertainty in the business climate and that they might respond to that uncertainty by being a little more reluctant to invest. To be sure, the econometric evidence supporting this hypothesis is not rock solid, but it did strike us as suggestive enough to warrant a modest adjustment.

All told, these responses to the more hostile financial climate took about ¼ percentage point off our forecast for the growth of real GDP over the second half of this year and next, with about half of that amount reflecting the changes working through the traditional wealth channel and the remainder representing the combined influence of the three less traditional adjustments.

Could the implications of the financial situation for the real economy be even worse than we have built into the baseline? You bet. I almost invariably resist the temptation to declare that uncertainty about the real economy is greater than usual, but the current situation strikes me as the exception that proves the rule. In the "Alternative Scenarios" section of the Greenbook, we sketched three situations in which economic activity would be markedly weaker than in the baseline. In the first, residential investment drops 10 percent relative to baseline by the middle of next year, and home prices drop a total of 20 percent in nominal terms over the next year and a half—unprecedented in modern times but not outside the realm of possibility, as it would merely return the valuation of the housing stock to the level predicted by one of the house-price models that we track. The second scenario adds a deterioration in consumer sentiment, giving the meltdown in the housing sector an additional vehicle for spilling over into consumer spending more generally. In both of these scenarios, financial conditions deteriorate relative to baseline but only to the extent judged "normal" by the model in light of the weaker overall economy. The third scenario adds a further and more virulent deterioration in financial conditions, with a 10 percent decline in equity values and a 100 basis point widening in the spread on investment-grade securities. In the third scenario, we nearly—though not quite—succeed in generating a recession despite a substantial easing of monetary policy.

On the other hand, could it be better? A key objective in putting together this forecast has been to ensure that risk lies on *both* sides of the baseline forecast. For example, yesterday's market rebound is a reminder that stranger things have happened than for calm to break out in financial markets. One cannot rule out that, six months or a year from now, we will look back on this episode much as we look back on the flare-up in February of this year or as we look back on the stock-market break in 1987, with a sense of surprise that the financial event did not leave a greater imprint on the real economy. Even if the financial markets do not heal themselves quickly, consumers may prove more willing to postpone the increase in the saving rate that we have assumed in the baseline; businesses may aim to build the investment share of GDP back much closer to the levels that it attained in the late 1990s; and home sales may recover more quickly than we have assumed.

A second challenge that we faced in putting the forecast together—more routine than the task of factoring in the implications of financial-market developments—was to take account of the annual revision to the national income and product accounts. As you know, the BEA revised down the growth of real GDP ⅓ percentage point, on average, in 2004, 2005, and 2006. Conveniently, this time around, the BEA made only very small adjustments to their estimates of PCE inflation. Because the NIPA revision gave us no new reason to revise our previous assessment of the pressures in product markets, we took our estimate of potential output down in line with actual GDP, thereby maintaining the gap between the two at its previous level as of the end of 2006. In line with our custom in years past, we carried the revision to the growth of potential through into the forecast period. As a result, we now have potential output increasing 2¼ percent in both 2007 and 2008.

A virtue of the approach that we have taken in revising the supply side of the projection is that it leaves most of the variables you care about undisturbed. Thanks to the BEA, inflation is essentially unrevised. Because we moved potential down in line with actual, the GDP gap and the unemployment rate trajectories are also essentially unrevised. And with real interest rates and the GDP gap about the same as before, r* is also roughly unrevised. In short, if you make your policy decisions based on expected inflation and expected resource utilization, your policy choices after the revision should be about the same now as they were before the revision, provided that you see the prospects for resource utilization as roughly the same now as they were before the revision. The one variable that is different, of course, in the projection as well as in history, is the growth rate of real GDP. But a conventional analysis would view the revision to that variable as something you simply have to accept—not something you can do anything about.

In a statement that will strike you as reminiscent of "other than that, Mrs. Lincoln…," I would summarize the *non*financial news that we received during the intermeeting period as having been remarkably consistent with our June projection. On the downside, the most notable development, to be sure, was in home sales, both new and existing, confirming the recent step-down in housing demand. Pending home sales—our most reliable near-term indicator of existing-home sales—rebounded in June, but to a level that is still well below its average in the first quarter. Even so, were it not for the substantial disruption on the lending side, the portrait of the housing sector that we would be reporting to you today would be substantially the same as the one we presented in June. Elsewhere, the data on orders and shipments of nondefense capital goods in June were a little softer than we had expected. The slowdown in light-vehicle sales in July to 15.2 million units at an annual rate raises a warning flag, but we are inclined at this point to interpret that result as a temporary pause rather than a harbinger of much weaker spending ahead. All that said, last Friday's employment report once again showed a little more momentum in hiring than we had expected, and initial claims for unemployment insurance in the two weeks since the July survey week have remained low, giving no sign of any material deterioration in labor-market conditions. The increase in the unemployment rate to 4.6 percent in July was not a surprise given the moderate pace of growth, on average, thus far this year. Moreover, the indicators that we have in hand put manufacturing IP on track to post a solid increase in July. All told, the real economy seems to have entered the period of intense financial-market turbulence with, if anything, a little more momentum than we would have projected at the time of the June meeting.

On the inflation front, the picture looks very much the same as it did at the time of the June Greenbook. We still see the bulk of the improvement in core PCE inflation during the second quarter as likely to prove transitory. In a nod to the relatively favorable recent monthly readings, we trimmed our forecast for the second half of this year by 0.1 percentage point despite a number of factors that could put slightly greater upward pressure on inflation, including the slower pace of structural productivity growth, the higher level of commodity prices, and the uptick of a tenth in the Michigan measure of long-term inflation expectations. Next year, as energy prices turn down slightly, inflation expectations remain well contained, and pressures on resource utilization ease slightly, we continue to have core inflation edging down to a rate of 2 percent; and we have top-line inflation dipping slightly below the core rate to 1.8 percent for the year as a whole, before coming back up in line with the core over the next two years. Karen will now continue our presentation.

MS. JOHNSON. The financial market turmoil over the intermeeting period has not been confined to U.S. markets. In today's financially globalized world, events in one asset market frequently have consequences in other markets and other countries; both the level and the volatility of asset prices abroad have moved with U.S. asset market developments. Equity prices are generally down, although not in China. Yields on long-term sovereign fixed-income securities are also generally down. CDS spreads, corporate bond spreads, EMBI+ spreads, and similar measures are generally up. With so much action happening in global financial markets, you might have expected some major revisions to our outlook for foreign real growth and inflation. Yet with the exception of revisions to some second-quarter numbers because of surprises from incoming data, the baseline forecast this time is little changed from that in June.

Two reasons for the lack of significant macroeconomic consequences in the rest of the global economy from these financial events seem particularly noteworthy. One is that there is no sector abroad in any of the major regions that corresponds to the U.S. housing sector and its direct ties to credit problems related to subprime mortgages. The second reason is that we do not observe any telltale signs, such as overexpansion by one or more industries or fragile household balance sheets, that would suggest that some repricing of risky assets and perhaps some restraint in credit creation would trigger significant changes in real economic behavior of firms or households. The global economy expanded strongly in the first half of this year with the underlying strength broadly distributed across regions and sectors. As a result, it is in robust condition and is likely able to withstand the adjustment proceeding in financial markets without substantial risk to continued real expansion or creation of inflationary pressures. Of course, we cannot be certain that continued or more-intense disorderly conditions in financial markets will not trigger a negative macroeconomic reaction, nor do we know for sure that problems are not already present but are not yet visible to us. So we see the events of the past several weeks as giving rise to an abundance of downside risk to our forecast of real activity rather than to changes in the baseline.

Despite a basically unchanged outlook for the rest of the global economy, two elements of the international forecast merit some further discussion: global oil market developments over the intermeeting period and the staff's judgment that U.S. real imports of goods and services will expand at a rate about 1 percentage point lower than we projected in June. On July 31, the spot price for WTI rose above $78 per barrel and attracted attention for having reached a new peak value. Although that price subsequently moved back down somewhat, the spot WTI price was about $7 per barrel higher on the day we finalized the Greenbook forecast than it was on the comparable day in June. In part, the upward shift in the spot WTI price reflected an unwinding of most of the unusual discount for WTI relative to Brent and other grades of oil that persisted from mid-March until recently as a result of large inventories of WTI at certain locations. By comparison, the spot price for Brent crude oil rose nearly $4 per barrel over the same interval. The upward pressure on spot prices appeared to arise from the supply side, with production restraint by OPEC a factor. However, although prices moved up noticeably at the front of the curve, futures prices for oil dated later this year and early next year moved up much less; and futures prices for crude oil in late 2008 and beyond actually moved down. As a consequence, the oil futures curve returned to what is called “backwardation,” meaning that the spot price is above futures prices, which tend to flatten out at more-distant dates. Putting all this together, our forecast for the U.S. oil import price is more than $4 per barrel higher for the very near term than it was in June, but it is little changed over 2008. So the impact of higher oil prices on our trade deficit is limited. Whereas some upward push to consumer prices abroad might result from the recent increases in crude oil prices, our expectation, based on futures markets, that they will prove transitory means that few sustained pressures on inflation should result.

Our forecast for the growth of total U.S. imports of goods and services has been revised down about 1 percentage point for the second half of this year and nearly that much for next. The resulting annual growth rates of 2¾ percent in the near term and 3 percent next year are about 3 percentage points below the growth we are projecting for real exports of goods and services. Although in the near term slightly weaker projected imports for oil and natural gas are part of the story, further out weaker growth in imported core goods and services largely account for the revision. For these two categories, the downward revision reflects the changes in this forecast to the projected level of the dollar and to the path for U.S. real GDP.

We have made some small adjustments to our outlook for the constituent currencies in our broad dollar index that by chance are offsetting, leaving the staff forecast for the rate of depreciation of our real broad dollar index going forward about the same as in June. However, the depreciation of the dollar that has already occurred since your June meeting resulted in a downward shift in the current-quarter starting value for our forecast path of about 1¼ percent. That real depreciation works to restrain imports of core goods and of services somewhat, especially in the near term. Parenthetically, it also has a stimulative effect on our exports of core goods and services.

The lower path for U.S. GDP growth going forward is the primary explanation of our downward revision to projected import growth. With U.S. GDP now expected to grow at an annual rate of 2 percent, rather than 2½ percent, imports of both core goods and services decelerate more than in proportion, as our best estimate of the income elasticities for each of these categories is above 1. Of course, the baseline path for U.S. real GDP takes into account the lower imports and the simultaneous nature of the determination of GDP and its components. But the information contained in the annual revision to past U.S. GDP growth and the prospect of lower potential GDP going forward was “news” to our import model and led us to make the downward revisions I have just described. With growth of real exports of goods and services revised up only slightly, their positive contribution to real GDP growth is just a bit more positive. In contrast, the negative contribution from real imports is now significantly smaller in absolute value. As a result, the overall arithmetic contribution from real net exports to real GDP growth over the forecast period is positive at an annual rate of about ¼ percentage point. Such an outcome would mean that real net exports have contributed or will contribute positively to real GDP growth in each of

2006, 2007, and 2008. From the perspective of real GDP, a positive contribution from real net exports is one very reasonable criterion for external adjustment, should it be sustained. Brian will now continue our presentation.

MR. MADIGAN.[2] I will be referring to the handout labeled "Material for FOMC Briefing on Trial-Run Projections." As in shown line 1 of the top panel of exhibit 1, the central tendency of your current forecasts for real GDP growth for the second half of 2007 is 2.0 to 2.7 percent. Combined with the BEA's estimate of 2.0 percent growth in the first half, your projections imply a central tendency for the year of 2.0 to 2.3 percent, down 0.2 percentage point from the June trial run. The growth rates for 2008 and 2009 were revised down by a similar amount and now center on about 2.5 percent. As can be seen by comparing rows 3 and 4, the central tendencies of the projections for the unemployment rates at the end of 2007, 2008, and 2009 are essentially the same as in June. The downward revisions to real GDP growth together with the unchanged forecasts for unemployment suggest that, like the staff, many of you revised down your estimates of potential GDP growth about ¼ percentage point. Still, as in June, FOMC participants generally are a bit more optimistic than the staff about potential growth. Indeed, many of you made those points in your forecast narratives. As shown in row 5, the central tendency for core PCE inflation for the second half of 2007 is 1.9 to 2.1 percent. Together with the 1.9 percent rate for the first half, this implies a central tendency of 1.9 to 2.0 percent core inflation for the 2007 as a whole, down slightly from the June projections. The central tendencies for the next two years are nearly identical to those in June, with the midpoint edging down over time. The central tendencies for total PCE inflation, line 7, collected for the first time in the current exercise, are similar to those for core inflation for 2008 and 2009. The central tendencies of your projections for core inflation this year and next lie just below the corresponding staff forecasts, and the central tendencies of your projections for unemployment late this year and next are also just below the staff forecasts. These comparisons suggest that many of you have a somewhat lower estimate of NAIRU than the staff's estimate of 5.0 percent, a point that some of you made explicitly in your narratives.

In earlier discussions of the role that your projections might play in enhancing the Committee's communications, some of you noted that extending the time horizon for your projections would give the public more information about your estimates of potential GDP growth and your judgments about optimal or acceptable trend inflation. To the extent that argument is correct, the 1.1 percentage point range of your projections for GDP growth in 2009, shown in line 1 of the middle panel of exhibit 1, suggests noticeable dispersion in your views of potential growth, though those growth rates may also be affected by projected adjustments toward inflation rates that you see as desirable. The range of your projections for total inflation in 2009, line 7, is not quite as wide, suggesting somewhat greater commonality in your views about the rate of inflation consistent with price stability; and the range for your core inflation forecasts in 2009, line 5, is a bit narrower, remaining at 1.5 to 2 percent.

[2] Materials used by Mr. Madigan are appended to this transcript (appendix 2).

As shown in the bottom panel, most of you again characterized the appropriate path for the federal funds rate as broadly similar to the Greenbook assumption. As in June, a few of you assumed a modestly lower path for the federal funds rate, evidently reflecting expectations of more-favorable aggregate supply conditions than in the Greenbook forecast, while two assumed an increase in the fed funds rate later this year or early next year (followed by a reduction) to foster more disinflation.

Exhibit 2 summarizes the results on uncertainty and skews. You were asked to characterize your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past twenty years and to indicate your judgment of the risk-weighting around your projections. As shown in the top two panels, about two-thirds of you see uncertainty about growth as broadly similar to that experienced historically and see the risks around your growth projections as broadly balanced. Compared with the situation in June, however, a few more of you see greater uncertainty than historically; and a few more view the risks as tilted to the downside. Similarly, with regard to the outlook for unemployment, not shown, noticeably more of you than in June see the risks as tilted to the upside. With respect to core inflation, the middle two charts show that almost all of you again judge that the uncertainty attached to your projections is similar to past levels, while the number of you who see the risks as tilted to the upside edged down. As shown in the bottom panels, your judgments about the uncertainty and risks for total inflation are nearly the same as those for core inflation.

I would like to end on a personal note. As the Chairman noted, Vincent Reinhart will be leaving us. Vincent joined the Board's staff in 1988. For a while, Debbie Danker and I oversaw Vincent's work, but before long Don and the Board recognized prodigious talent, and eventually the tables were turned. [Laughter] The Chairman has already indicated how the Board and the FOMC have benefited from Vincent's unparalleled expertise and work ethic. But I want to note that we on the staff have benefited equally, from Vincent's generous contributions to our research, current analysis, and policy work and from his insightful and creative approaches to day-to-day management issues. Finally, Vincent's eclectic wardrobe was useful to the staff in generating random numbers for stochastic model simulations. [Laughter] On any given day, for any given occasion, whether he would choose to show up snazzy or shabby was perfectly unpredictable. Vincent, all members of the Federal Reserve staff have been proud to be associated with you. We will miss you. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. We're now open for questions for the staff. President Fisher.

MR. FISHER. I noted Karen's comments about the globalized interlinkages with financial markets, and I have a simple question for maybe Karen. In terms of the alternative scenario that was sketched for greater housing correction to spill over to confidence in financial markets, in that discussion and in that model or simulation, when you talk about equity prices, stresses in the debt markets, and further weakness in aggregate spending, are you talking about the United States only?

MS. JOHNSON. Yes.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Are there other questions? President Lacker.

MR. LACKER. David, when you were describing the implications of the GDP revisions for your assessment of the output gap, you said that you essentially marked down potential by the same amount as realized growth recently based on your assessment of pressures in product markets. In case we wanted to try it at home, I was wondering if you could say a little more about what data that assessment of pressures in product markets relies on?

MR. WILCOX. It relies on a variety of considerations, but ultimately I would say it relies on inflation performance. One way that we have of assessing whether our gauges of resource utilization are moving off track is to look back and see whether our inflation models that incorporate those measures of resource utilization are overpredicting or underpredicting. It’s an imperfect mechanism, to be sure, because the impulse from resource utilization to inflation is very weak; therefore, an error in estimation on our part of the pressures on resource utilization would show up in a discrepancy in the inflation projection that could easily be lost in the noise. But that’s probably the main approach that we take to attempting to gauge ultimately whether or not we’re off base. In putting together our assessment of the output gap, we also attempt to maintain some alignment of that measure with the gap between the unemployment rate and the natural rate or the NAIRU. Our analysis of the NAIRU factors in as well a more fundamental inspection of things like demographic influences, including disability rates and the age composition of the population. So there is an effort to bring to bear an independent analysis of some of the economic determinants that might be moving the NAIRU up or down.

MR. LACKER. I guess my question was motivated by my sense that estimates of the current output gap tend to play an important role in your outlook for near-term inflation trends. To the extent that the current estimate of the output gap is derived from current inflation, I am wondering if it provides less independent information than current inflation about future inflation than one might otherwise have thought.

MR. WILCOX. I would make two remarks regarding that. First, quantitatively, in fact, the output gap doesn't play a very large role in shifting our projection of inflation. If one does a sort of retrospective decomposition of the factors that were generating inflation over the past ten, fifteen, or twenty years, during the period of the great moderation, gaps in resource utilization are at most a modest contributor to the variance in inflation. Econometrically speaking, a very important determinant of inflation variability is just shocks that push inflation and that our model has no ready attribution for. So they are not directly attributable to relative energy price movements, relative import prices, resource utilization, or inflation expectations, but just stuff happening that moves inflation around. So your point is correct in principle, but quantitatively, I think it has a very modest influence on our current projection. Second, we enforce a good deal of smoothness so that we are not, by any means, soaking up the residual in the inflation equation that emerges in one period by saying, "Oh, that must have reflected a variation in potential output growth" in order to drive the residual to zero. We are allowing that residual to persist and to inform our assessment of potential output growth only over time and with an accumulation of evidence.

CHAIRMAN BERNANKE. Other questions? We'll begin our economic go-round then. For President Rosengren's benefit—as you probably know, if we have a comment or a question for a speaker, we use a two-handed symbol for an intervention. I would like to begin the go-round today with President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Conditions in the Seventh District have changed little since our last meeting. We continue to lag the nation largely because of difficulties in the auto industry. Our contacts thought that the U.S. economy had softened a little since June but that international sales continue to be strong. They also voiced continuing concerns about input cost pressures. There is no good news to report on residential construction. Some of my contacts again pushed back their expectations on when housing markets would begin to improve and are now saying later in 2008. We did hear some upbeat comments from our directors about nonresidential construction in the District, but manufacturers of heavy equipment indicated that they were seeing less demand for products that are used in nonresidential construction. We also heard some less-optimistic reports about consumer spending. A major shopping center developer and operator scaled back his expectations for the second half of this year and now thinks that spending will be softer than in the first half. In addition, a large national specialty retailer saw a broad-based slowing in its sales over the past six weeks. Still, no one was overly pessimistic. In our own forecast, we assume that the weakness in consumption relative to trend during the second quarter was largely transitory, perhaps a reaction to the run-up in gasoline prices.

Regarding the motor vehicle sector, the major topic of discussion is the current labor negotiations and the possibility of a strike in September. I get the sense that the odds of a walkout are small because both the automakers and the UAW think that a strike would be very damaging. As our director who heads the Michigan AFL-CIO noted, a strike would be mutually assured destruction. The UAW realizes that the negotiations are occurring against the backdrop of very bad economic conditions in the traditional automaking regions. For example, since 2000, Michigan has lost 400,000 jobs. That's an 8½ percent decline in employment. A strike would be seen as just adding to these economic woes. So from all my discussions with management and labor, my impression is that the climate for change underlying these negotiations is stronger than it has been in the past, but I am not sure how big a move the UAW leadership thinks it can get approved by its members.

Of course, the major development affecting the forecast since the last round is the turmoil in credit markets that we were talking about earlier. Our director who runs a major private equity firm made a number of interesting comments regarding the difficulties that banks were having selling off loans that had been made to risky borrowers with extremely beneficial terms, such as covenant-lite and an option to accrue interest charges. The bottom line is that he thought that after the current shakeout there would be fewer buyouts and that pricing and terms would become more reflective of risk. Going forward, it seems likely that the market will favor so-called strategic buyers, the nonfinancial firms that are looking for acquisitions that would directly enhance the efficiency and scale of their business operations. So while we are concerned about the negative implications of tighter credit conditions, markets may now do a better job in pricing the tradeoff between risk and return, which is a positive development.

So how might these financial developments affect the real economy? If sustained, the fallout of credit market jitters on the stock market and other assets would weigh on spending through the standard wealth-effect channels. With regard to the credit markets themselves, the key question is how many of the deals that are now being canceled or scaled back would have resulted in an expansion of business activity as opposed to simply transferring ownership. Given the modest changes in interest rates on higher-rated debt, continued growth in C&I lending, and ample internal funds of nonfinancial firms, the cost of capital for most investment projects probably has not risen substantially. So the first-order effects on spending will likely be limited. Of course, this could change quickly in the current volatile markets, and we will need to monitor these developments carefully, or should I say *you* will need to monitor these developments carefully. [Laughter] However, right now, putting all these factors together, we view the developments in credit markets as a risk to the near-term forecast but not a reason to lower the outlook for growth very much. That said, we, like the Greenbook, have marked down our assumptions concerning potential. We now see potential as a bit above 2½ percent. However, relative to potential, our forecast for real activity is not much different from last round. We see growth averaging close to potential in the second half of ’07, which is stronger than the Greenbook, but running a touch below potential in ’08 and ’09, which is similar to the Greenbook.

Our inflation forecast also has not changed much since June. We still see core PCE prices increasing a shade below 2 percent by 2009. But I must say I remain concerned about the inflation forecast. The standard list of upside risks—the lack of resource slack, cost pass-throughs, inflation expectations—these could break the wrong way and require a policy response. So, if potential output growth is, in fact, significantly lower than our earlier assessment, then you could face some challenges in calibrating policy as the economy and economic agents adjust to the lower trend in productivity growth.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. Data on inflation during the intermeeting period have continued to be encouraging, but the prospects for economic activity have become dicier. The results for GDP in the second quarter as a whole actually took on a positive tone, with final sales mainly accounting for the healthy growth rate. But the quarter ended on a weak note, with disappointing data for housing consumption and for orders of core capital goods. Of course, the big developments since our last meeting were in financial markets. I read them as pointing to weaker growth going forward and greater downside risk. The market for mortgage-backed securities is now highly illiquid, and there are indications that credit problems are spilling beyond the subprime sector. It thus seems likely that lending standards will tighten for a broader class of borrowers in the mortgage market.

The drop in equity prices and rising rates on most risky corporate debt are further negatives for growth. There are some offsets to these negative factors, including the decline in the dollar and, most important, the steep reduction we have seen in risk-free rates. On balance, however, I expect these offsets to be only partial, providing a cushion against future weakness, because I interpret the decline in Treasury rates during the intermeeting period primarily as a reflection of weaker growth expectations and a correspondingly lower path for the expected future fed funds rate and not a consequence of the fall of the term premium. The jump in oil prices since our last meeting is a further factor weighing on aggregate demand. As a result of these considerations, I have lowered my growth forecast for the second half of this year ½ percentage point, to just over 2 percent. This rate is moderately below my estimate of potential growth, which I now put at about 2½ percent.

Going beyond this year, the outlook depends on one’s assumption concerning appropriate monetary policy. I consider it appropriate for policy to aim at holding growth just slightly below potential to produce enough slack in labor and credit markets to help bring about a further gradual reduction in inflation toward a level consistent with price stability. Barring a more serious and prolonged tightening of credit market conditions or a general liquidity squeeze, I would keep the fed funds rate modestly above its equilibrium level to accomplish this goal. However, I now see the fed funds rate as well above the neutral level. So I think it likely that the fed funds rate will need to fall appreciably over the next few years. My assessment of the neutral federal funds rate declined during the intermeeting period for two main reasons—first, because of the tightening in financial conditions associated with the reassessment of risk now taking place and, second, because of the NIPA revisions, which suggest slower structural productivity growth and, in all likelihood, correspondingly slower growth in aggregate demand. I thus think that a larger decline in the fed funds rate will be needed over time than in the Greenbook baseline to achieve a soft landing.

A key development during the intermeeting period was the downward revision of real GDP growth over the 2004-06 period. This adjustment reinforces the work of productivity experts at the Board and elsewhere who had previously found evidence of a slowdown in underlying productivity growth. The revision in actual productivity was big enough to lead us to lower our estimate of growth in both structural productivity and potential output, although our estimates remain above those in the Greenbook. In addition to tighter financial conditions, lower structural productivity growth was the reason that we lowered our forecast for real GDP growth to 2¼ percent in 2008. As a result, the unemployment rate edges up in our forecast, reaching nearly 5 percent by the end of next year. The modest amount of slack that this entails should help bring about the desired gradual reduction of inflation in the future.

Readings on core PCE prices have been quite tame for some time now, rising only 0.1 percent in each of the past four months. Although a portion of the recent deceleration in core prices likely reflects transitory influences, the underlying trend in core inflation still appears favorable. We anticipate that the core PCE price index will rise 2 percent this year and that core inflation will gradually ebb to around 1.8 percent over the forecast period. This forecast is predicated on continued well-anchored inflation expectations and the eventual appearance of a small amount of labor market slack, as I just mentioned.

For some time now, I've thought an argument could be made that the NAIRU was a bit lower than assumed in the Greenbook, and the new evidence that structural productivity growth has been lower than we thought for more than three years reinforces this view. It means that the relatively good inflation performance over this period occurred despite the upward pressure that must have been operating because of the deceleration in structural productivity. In any event, I also expect to see modest downward pressure on inflation in the next couple of years from the ebbing of the upward effects of special factors, including the decline in structural productivity, energy and commodity prices, and owners' equivalent rent.

In terms of risk to the outlook for growth, the housing sector obviously remains a serious concern. We seem to be repeatedly surprised with the depth and duration of the deterioration in these markets; and the financial fallout from developments in the subprime markets, which I now perceive to be spreading beyond that sector, is a source of appreciable angst. Of course, financial conditions have deteriorated in markets well beyond those connected with subprime instruments or even residential real estate more generally. It appears that participants are questioning structured credit products in general, the risk assessments of the rating agencies, and the extent of due diligence by originators who package and sell loans but no longer hold a very sizable fraction of these originations on their own balance sheets. The Greenbook has long highlighted, and we have long worried about, the possibility and potential consequences of a broader shift in risk perceptions. With risk premiums having been so low by historical standards, it would hardly be surprising to see them rise, making financial conditions tighter for any given stance of monetary policy. While it remains possible that financial markets will stabilize or even reverse course in the days and weeks ahead, the possibility that the financial markets are now shifting to a historically more typical pattern of risk pricing is very much on my radar screen. Should this pattern persist and possibly intensify, it will have very important implications for policy.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, at the past few meetings I have spoken about my District as having strong growth. I have asked questions about the strength of the growth in the national economy, and I have described the global economy from the standpoint of the way the staff here writes about it and the way we do our own work as “hotter than a $2 pistol.” Nothing has really changed since my last intervention. I would note that, unlike President Moskow’s District, our District is unusual on the other side: We are not experiencing the kind of decline in home prices that is being experienced elsewhere. We’re suffering from widespread labor shortages, for both unskilled and skilled labor. We believe that we are seeing significant labor hoarding in our District. Unemployment is strikingly and historically low in the two major cities of Dallas and Houston at 4.1 percent, in Austin at 3.5 percent, and along the border areas unprecedentedly in the low single digits. Salaries for accountants in our District are up 5 to 8 percent. Law firms—I note that there are 1.2 million lawyers in America and 1.1 million people who work in the auto industry from parts to final assembly, which is a statement on our society—[laughter] are raising first- and second-year annual compensation by double digits for their new lawyers. So there is still price inflation in the service sector. We perceive, through our discussions with CEOs around the country, that while there has been a net downward movement in the more-robust measurements of price inflation—the trimmed mean—there still are some threats on the inflation front. For example, the CEO of Wal-Mart USA told me yesterday that, internally, when they evaluate their comparable store measurements, the comps are being driven by inflation, not by volume. As for the demand for ships—if you read the *Wall Street Journal* yesterday or from the interviews I have had with large shippers, the bulk carriers are trading at record highs. The Baltic index is at a record high, driven by exports of iron ore, pulp, and other products to voracious Chinese demand and by the return of exports from China to a voracious European demand. Container shipments are up 20 percent year over year in terms of European imports. The price pressures being exerted there seem to be invading other areas. One of the more interesting observations was what has happened recently in terms of the pricing of paper products being led by SCA, which is a European corporation. Kimberly-Clark and the others have fallen in line. They are asking for double-digit increases. So although we are seeing some mitigation of price pressures, I am nonetheless concerned that, given the international dynamics, we still have the potential for price increases and a bit of resistance to what I would like to see.

In terms of economic growth nationally, I just want to comment on some things that the staff presented. I thought the Greenbook was excellent. I did speak to two of the five largest publicly held builders. They report that all-in, with incentives, their prices have been marked down an average of 25 to 35 percent from a year ago. Those are significant numbers. For example, in the Imperial Valley of California, homes selling for $550,000 to $600,000 have been now marked down to $400,000 to $450,000. The builder with the most experience—forty years of experience—who has lived through all kinds of cycles is of the strong belief that we are in the second year of a five-year correction. Like the point that you made, President Yellen, this is of great concern. So net from the Dallas Fed standpoint, we have lowered our expectation for second-half growth to 2 percent. We are still concerned, despite the encouragement of marginal movement, on the inflation front. I'd like to leave the discussion of the economy there and just turn to the previous discussion we had and the references made by President Moskow and President Yellen.

This may be a bit harsh, but if you look at the front page of the *Wall Street Journal* from this morning, I see what I call the "Churchillian maxim" at play, which is, "I shall fare well in history because I shall rewrite that history." Whether you use Greg Ip to rewrite the history or you rewrite it yourself, no amount of rewriting of history will exonerate us if we are not prepared for the more-dire scenarios that were presented by the staff. I would ask that we do some scenario preparation in terms of, should we encounter increased financial market turbulence, what actions we might take to deal with it. For example, it is not clear to me that a widespread opening of the discount window solves the problem given the structure of what I call "ersatz credit" that is then spread throughout the system. It's not clear to me that even dealing, for purposes of the present meeting, with the fed funds rate is the issue because it is not an issue of just pricing in the marketplace. It's a structure issue, and it's a covenant issue. It's an availability issue.

I started my career, Mr. Chairman, with Herstatt. [Laughter] That was not an auspicious beginning. I lived through the corrections of the S&L market, portfolio insurance, the crashes of '87, '97, and so on. When you sort through them, all of them have a common basis, and that is a search for greater yields or greater return, leverage in order to achieve that return, and some assumption of risk mitigation leading to what I call "rational complacency." I believe that's at play presently. I agree fully with President Yellen that it presents a significant risk. However, I want to exercise great caution in interpreting these signals. I think we have to be extremely careful about what we do and what we say. Just to show my hand, I would not be in favor of cutting the federal funds rate at this juncture. I think we have to analyze the language carefully. But my request is that, in addition to our exercise on communication, we take a serious look at the various scenarios that might obtain, so that no one could ever accuse us of being unprepared in case the worst obtains. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you, President Fisher. Just to respond very briefly, we do have a group here at the Board working with other economists and financial experts throughout the System that does scenario analysis and does monitor the markets, and we certainly are quite attuned to these issues.

MR. FISHER. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. The reports that I am hearing from business leaders in the Fourth District lead me to conclude that the pace of economic activity hasn't changed a great deal since our last meeting. However, the uncertainties surrounding the business climate seem to have risen measurably. The troubled housing sector is still weighing on the region, as it is nationally. I now have little doubt that this theme is going to recur throughout the balance of the year and perhaps well beyond. My view of the housing sector conforms closely to the way housing is depicted in the Greenbook baseline, but I have had many conversations in the past few weeks with anxious industry insiders, who believe that housing markets are likely to worsen substantially over the balance of the year with the possibility of significant spillovers to other sectors of the economy. The stories they tell me sound a lot like the greater housing correction scenarios that are depicted in the Greenbook. Indeed, casualties in the mortgage markets are rising, and I am hearing more and more that the fallout from housing is affecting deals in other sectors of the economy. For example, I talked with a CEO who runs a large national real estate development company. He told me that some of his projects are being held up by his investment banker's inability to price deals and to bring them to market. Where the deals can be priced, risk spreads have widened across a range of issuers and financial instruments. This CEO's comments are very much in line with the points that Bill Dudley made in his report earlier this morning.

Because of these uncertainties in financial markets, some of my contacts confirm that they have been reevaluating their capital formation plans. They are trimming their projections of some of the projects that they are going to put on the books, and that led me to trim my projection for business fixed investment accordingly. Even with this adjustment, however, I am concerned that the pattern of business investment that I have incorporated into my GDP projections for this meeting may still be somewhat optimistic. This is a risk to the outlook that was not on my radar screen at our last meeting.

The June retail price measures gave us more evidence that the inflation trend may be coming down. Inflation moderated in the second quarter, as measured by the median CPI and the 16-percent trimmed mean that we produce at the Cleveland Fed. I am not yet persuaded that this progress will be sustained, but the patterns in the June data were promising. My projection for inflation in the outyears of the forecast are actually a little more favorable than what is in the Greenbook baseline, primarily because I still expect a bit more potential GDP growth than the Greenbook envisions. So I am feeling more comfortable about the inflation risks than I have felt for a while but less comfortable about the real-side risks. My overall risk assessment is moving closer into balance. Nevertheless, I still think that inflation is the predominant risk we face today. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, as best I can judge, recent readings on the economy are generally consistent with anticipation of moderate growth and some gradual diminution or at least no deterioration in inflation. Second-quarter GDP readings, as far as I can tell, contain no big surprises. In particular, the components of aggregate demand that were expected to bounce back after periods of sluggishness or, in some cases, correction—inventory accumulation, spending on equipment and software, and federal government outlays—all in fact did bounce back as anticipated. The labor market report for July was positive, and anecdotes and indicators in our District are generally quite consistent with the tenor of that report. The labor market appears to be healthy. Job availability appears to be ample. The labor market overall, I would say, is strong.

Of course, all of that is by way of background because that information has been overshadowed in recent weeks by what I think are three or four developments of greater significance, one of which is the revision to the NIPA accounts. The GDP and productivity data and, in particular, the downward revision to productivity may have significant implications for the longer-term performance of the economy. I won't dwell on that now. Dave Wilcox covered some of that earlier. There was also an upward revision to the personal saving rate, which possibly has implications for the outlook for consumer spending going forward, and I will come to that briefly in a moment. Of course, the big headlines have been the turbulence in the financial markets and all the uncertainty associated with the duration of the repricing and the adjustments that are under way and their quantitative significance for the performance of the economy going forward. This turbulence in the financial markets is likely the most significant development for the short-term performance of the economy and possibly for policy. But at this point, it is very difficult, to put it mildly, to assess its effects for reasons I alluded to earlier—

namely, that we don’t know how long this will last and what will follow in its wake. Even if we knew the duration, would we be—at least would I be—all that confident that we could go from that to the magnitude of the effects on the economy? So all of that suggests to me that we should have a good deal of caution at the moment. Since we don’t, it seems to me, know enough to act decisively, we certainly don’t want to overreact or to act wrongly in these circumstances. These developments really have taken hold forcefully in the past several weeks. The situation has not been so dramatic for any extended period of time.

Returning to the saving rate for a moment, I am quite cautious about drawing implications for consumer spending on the basis of a judgment about whether the saving rate is likely to go up or down. An argument has been popular in some circles that, with the negative saving rate as reported until recently in the data, the implications for consumer spending were likely that spending was going to be sluggish going forward because the negative saving rate couldn’t persist. It seems to me that the argument now, at a minimum, has to be less compelling, and so, other things being equal, we might be tempted to become more optimistic about consumer spending. That could be swamped, of course, by the negative wealth effects coming out of the adjustments in the financial markets and the tighter financial market conditions as well. On net, I guess I come out where I usually do on this—that it is mostly a matter of employment and incomes—and so far so good on that score.

Finally, and this is the fourth development that I will mention—although I don’t think it’s as important as the other three, but I did want to comment on it—it looks as though, as part of the revisions to the NIPA accounts, the increase in unit labor costs will be revised up for the previous three years—that is, for ’04, ’05, and ’06. I think that’s right. Now, this is a matter of correlation and not causation, but it does appear that there is a pretty high correlation in the short run between unit labor costs and inflation. That observation flashes a bit of a warning light on our expectations of a fundamental slowing of inflation over time. Thank you.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Mr. Chairman, the Tenth District economy overall continues to perform well, with strength in energy and agriculture partially offset by the weaknesses in residential construction. Developments since the last meeting include some softening in District manufacturing activity similar to that shown in the July ISM survey numbers and in other regional Reserve Bank indexes. We have also seen a slowing in overall employment growth. In contrast, consumer spending seems to be holding well in spite of higher gasoline prices. Indeed, reports from District directors and business contacts indicate a strong summer tourism season with increased air traffic and higher hotel occupancy rates throughout the western part of our region. The recent slowing in District employment growth has been somewhat surprising to us, given the activity in much of our region. Since the beginning of 2004, District employment growth has been running around 2 percent, and in the past few months has slowed to about 1½ percent. Geographically, the slowdown has been most notable in Wyoming, New Mexico, Colorado, and Oklahoma, and anecdotal information suggests that the slower growth is due more to a shortage of skilled and semi-skilled labor than to any weakening in demand. This anecdotal information is supported by new regional information on employment costs by the BLS. According to them, recent employment cost increases in these states have been well above increases nationally and in other parts of our region.

Construction activity remains mixed, with weakness in residential construction offset to some extent by strength in commercial construction. Just an aside, when you talk about things that are on the horizon, we are a little concerned about commercial real estate because it is very hot right now and there is a fairly large portion of it on the books of the banks in our region. On the residential side, there is considerable variation across our region. In some areas where energy and agriculture are strong, housing activity is actually above normal. In other parts of the District, however, both national and local developers are experiencing the most difficult conditions in some time. In most District metro areas, inventories of unsold homes continue to rise, but the rate of increase has diminished somewhat in recent months.

Turning to the national outlook, data released since the last meeting support the view that growth will pick up over the year. Compared with the Greenbook, I am more optimistic about both the near-term outlook and longer-run growth. Specifically, I think second-half growth is likely to be around 2½ percent. Growth in 2008 and 2009 is likely to be near potential, which we estimate to be around 2¾ percent. Housing obviously constitutes the major downside risk to growth over the next few quarters. I am not yet convinced, however, that recent financial market volatility and repricing of credit risk will have significant implications for the growth outlook. It is still reasonable at this point to think that the recent volatility will prove transitory, and the repricing of credit risk is, in that sense, desirable. I am also encouraged by the results of the July senior loan officer survey, which suggests no general tightening of bank credit conditions. Like the Bluebook, I think that Treasury yields are likely to move back up once the markets feel more comfortable about the state of the economy and credit conditions and realize that policy easing is not likely to be forthcoming. Although weakness in housing and tighter credit conditions have increased the downside risk to output, I believe that strength in consumer spending, exports, and government spending will help maintain moderate growth in the period ahead.

With regard to the inflation outlook, recent data on core CPI and PCE continue to be favorable. However, I am expecting some pass-through of higher energy prices to temporarily boost core measures over the second half of this year. In addition, pressures from resource utilization and slow productivity growth remain. Thus, despite recent improvements, I continue to believe that some upside risk to inflation remains. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. Since our last meeting, the news in the Third District has been generally positive. Economic activity continues to expand in the tri-state area but at a less rapid pace than at our previous meeting. Our Business Outlook Survey indicates that the District's manufacturing output continued to expand in July, although at a somewhat slower pace than in June. The June measure, you may recall, was more than 18 in our Business Outlook Survey, the highest level that it had been since April 2005. In July the index dropped to a little over 9, although it was still significantly positive. Shipments of new orders increased in July, and the outlook for manufacturers' own capital spending plans remains positive and is at a level typical of an expansion. Firms in our survey generally see improvements in their businesses coming in the second half of the year. Residential construction, however, continues to be very weak in the region, but we have not seen, at least according to OFHEO indexes, any absolute price declines in our area. This is confirmed by our business contacts, who report that they have not seen steep or broad-based declines in house prices, except for properties along the Jersey shore, where the boom was most prevalent. At our last meeting I characterized the nonresidential investment market as firm, and that characterization continues today. Office vacancy rates in the Philadelphia region remain very low and declining, and rents in office and warehouse spaces remain at a record high. Although reports on retail sales in our region have been mixed, sales appear to have improved somewhat in late June and early July, especially at higher-end retail establishments.

Bank lending has continued to advance but at a more moderate pace than at the time of our last meeting. Our banking and other business contacts indicate that banks have money to lend to customers with good credit ratings, and so I don't get the sense that area businesses are facing a credit crunch of the normal type. Banks are comfortable with their lending standards and do not expect to make any big changes along this dimension in the foreseeable future. For the most part our banks were not in the subprime business and obviously don't intend to start now, [laughter] and thus they have not seen an appreciable deterioration in their balance sheets or in those of the businesses to which they lend—their customers. Clearly, there is nervousness, but as yet there seem to be few consequences for the real economy.

June employment growth in the region was below trend, but the region's unemployment rate remains relatively low. Our staff expects employment to continue to grow at a moderate pace going forward and expects the region's unemployment rate perhaps to rise modestly by the second quarter of next year. Yet businesses continue to report tight labor markets. One very large builder, who is headquartered in our area and who builds mostly high-end homes, has actually reported that he cannot finish a number of homes that he has under contract and that buyers are waiting to move into. He cannot find labor. Because of the crackdown on illegal immigrants, who do a lot of the landscaping, a lot of roofing work, and all the labor that goes into finishing these homes, he cannot hire these workers, and so he actually has to put off closing deals because he cannot find workers to complete the homes.

On the inflation front in the District, employment costs in the Northeast are increasing at about the same pace as in the nation. Area manufacturers continue to report higher production costs, but there is relatively little evidence of pass-through of those higher costs to customers as they see it. Consumer prices are growing more slowly in the region than in the nation. So in summary, the Third District economy continues to expand at a moderate pace. While there is nervousness caused by the recent volatility in the financial markets, businesses do not yet see that affecting their current growth or prospects for future growth. Business contacts as well as the Philadelphia staff expect this moderate pace of expansion to be continued in the coming months.

At the national level, the news has been mixed. On the positive side, employment and income growth remain solid. Manufacturing output continues to improve, and core inflation and inflation expectations remain contained, although both remain higher than I would like to see in the long run. On the negative side, news on business fixed investment and housing has been disappointing. After encouraging signs of stabilization early in the year, the sales of both new and existing homes have continued to decline. Sales of homes declined 6.6 percent in June and almost 8 percent in the second quarter. At the time of our last meeting, I expressed the view that I was getting hopeful that economy was on track to return to near-trend growth later this year. Setting aside the issue that our perception of long-term trend growth in real GDP may need reassessment in light of the benchmark revisions, as we've been discussing—and I'll return to this point in a moment—the recent data on housing are suggestive of a weaker third quarter and perhaps fourth quarter as well. Though I think the underlying steady-state demand for housing is lower than the pace of housing demand before we saw the downturn begin, which implies that much of the adjustment in housing supply is part of a healthy adjustment to a new equilibrium, the stock of unsold homes continues to cause a drag on residential investment. I also think that there is some risk of temporary weakness in business fixed investment going forward simply because of increased uncertainty. So the return to trend growth, which I think will happen within the forecast period, may be delayed by a few quarters and may not get under way solidly until late in the first half of next year. You know the old saying: "If you can't forecast well, forecast often." [Laughter]

The biggest economic news headlines since our last meeting have focused on the volatility of the financial markets and the repricing of risk. I am inclined to put minimal weight on the current financial conditions for a slowdown in the pace of economic activity going forward. Although risk spreads have widened in the past three weeks or so, the cost of capital for high quality borrowers has hardly changed and remains relatively low by historical standards. This suggests to me that what we are seeing in the marketplace—at least right now but which could change, as we've all noted—is a change in the relative price of various measures of types of risk. The cost of capital for some borrowers is increased, but demand for business investments that originate from large corporations with good credit ratings has not changed and is not likely to be adversely affected very much in the repricing of risk, if that's what this represents. This news was reinforced to me by my conversations with area bankers, as I mentioned earlier, who say that they have plenty of money to lend to good credit risks. There is no evidence of a general credit crunch from their point of view. My general view regarding the limited nature of the credit repricing is reinforced by the fact that default rates on auto loans, credit cards, and other types of consumer debt instruments have not changed much, suggesting that the spillover effects, at least to date, have not been very measurable. Thus, I think that the decline in the subprime market is primarily a result of lax underwriting. Those lenders are now paying the price, but we must be very careful not to act or appear to act in a way that supports bad bets or lax underwriting standards without more widespread evidence of systemic problems affecting the real economy.

Let me now turn to what I think is a more fundamental factor for gauging the strength of the economy going forward and, therefore, the appropriate stance for monetary policy. In the most recent Greenbook, the Board staff revised down the rate of growth of structural productivity more or less in line with the reduction in real GDP growth, as we have been discussing. It is certainly reasonable to think that this new information about the pace of real GDP growth during the past three years contains information about the rate of growth of structural productivity going forward. But that is not an infallible signal. In my thinking about how monetary policy needs to be set, distinguishing temporary decreases in the rate of growth of productivity from permanent decreases is a critical piece of the puzzle. A transitory decrease would not affect the steady-state equilibrium real rate to my mind. But a permanent decrease would imply a lower steady-state equilibrium real rate and, thus, a lower natural rate for the federal funds rate. If the equilibrium real rate is lower, holding the fed funds rate constant, of course, would imply an implicit tightening of monetary policy.

I am still grappling with the implications of these benchmark revisions for future productivity growth. At this point in my forecast, I'm assuming that the revisions imply a rebenchmarking of the growth rate of structural productivity, but that rebenchmarking or that lowering of the trend rate of growth of real GDP is not enough so that core inflation can decelerate toward price stability in the next two or three years or so under a constant fed funds rate. But the reduction in the growth rate of structural productivity does feed through to a somewhat looser required path of the fed funds rate through 2008 to 2009. In my forecast, appropriate policy has the fed funds rate rising to 5½ percent in the first quarter of '08, holding steady there for two or three quarters, and then gradually drifting down toward a more neutral rate consistent with lower inflation expectations and lower trend output growth. With this path of the fed funds rate, I expect the economy to return to near potential real GDP growth in the first or the second quarter of 2008. I expect the housing correction to continue through the first half of 2008, but the drag lessens over the year. I expect the core inflation rate to be somewhat higher in the second half of the year than in the first half, but I expect the economy by 2009 to grow near its potential growth rate, which I now assume to be 2.8 percent, about 0.2 percent lower than I had last time, with the unemployment rate close to its natural rate of 5 percent and core inflation at about 1.5 percent.

I have two other brief comments I'd like to make about our forecasting exercise and some information I think is relevant. We continue to focus on the PCE price index, and I have some objections to that. I continue to believe that the CPI is a better measure, if for no other reasons than that it is more familiar to the public and that it is not revised. We were lucky this time in the GDP revisions that the PCE price index was not revised very much, and I think we run the risk that focusing too heavily on a measure that does get revised can cause us some difficulty. I also have some concern about the empirical ability of core PCE to actually be a very good predictor of headline PCE inflation at the end of the day. So I am still struggling with our choice of the index there. The other item that I would like to emphasize—and it was driven home to me in a meeting with some reporters in the not-too-distant past—is that I do believe that moving toward measures of uncertainty that include some fan charts would be useful. I was hesitant at first about that in part because getting appropriate measures of uncertainty that are internally consistent across all our forecasts and all our models would be very difficult. Yet some, what I would view as very sophisticated, journalists continue to confuse the issue of the range of our forecasts and our central tendencies with the issue of uncertainty or certainty. They do not understand that our central tendency is an agreement about what our point forecast is but that it may reveal very little or nothing about the degree of uncertainty in our forecasts. So I think it is very important that we quantify that in some way to be clearer and to eliminate some of that confusion. I'll stop there. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. I'm sorry. I see a two-handed intervention.

MR. MISHKIN. Charlie, could I ask you about the issue of the fan charts? As I understood the proposal, the fan charts would be in there, but we would not be producing our individual fan charts.

MR. PLOSSER. Right.

MR. MISHKIN. So I think you are absolutely right. I strongly agree with you that it is important to have something that is visually dynamic to get across uncertainty for many, many reasons, particularly to get people to understand that, even when we don't get it exactly right, we may still actually be doing a very good job and then, of course, to evaluate us in a more reasonable way.

MR. PLOSSER. Well, I am encouraged that that is going to be the case.

MR. MISHKIN. But I think it is a question of nuance. One of the issues that I wonder about here is that for us to do a communal fan chart would be extremely difficult technically. So the question is how we get across the issue of uncertainty in a very graphic way, and I think it can be done by producing information along the lines that the proposal mentioned. But I think we will need to see examples. So I would recommend that the subcommittee or whoever will be involved with the staff give us some different ways of doing it so that we can actually get some polling information on people as to whether or not this is effective.

MR. PLOSSER. That is fine. This point was driven home to me by somebody who I thought was fairly sophisticated. He saw the central tendency narrow and thought that therefore we were more certain about what our forecasts were.

MR. MISHKIN. It is not just the media. Think about the financial analysts who are writing about this all the time—and they get paid a lot more than we do.

CHAIRMAN BERNANKE. The two things are not completely unrelated.

MR. PLOSSER. No, they are not.

CHAIRMAN BERNANKE. If there is a lot of uncertainty, then there will be more divergence of views as well.

MR. PLOSSER. They could be negatively correlated actually. Just because our point forecasts converge does not mean that our uncertainty about that forecast is decreased.

CHAIRMAN BERNANKE. No, that is true.

MR. PLOSSER. It just means that there is more agreement.

CHAIRMAN BERNANKE. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. My basic view of appropriate policy is little changed from the previous meeting. None of the intermeeting developments yet compel me to change my view that our focus should remain on reducing inflation and inflation expectations. The outlook for GDP growth remains acceptable, especially in view of the recent downward revisions in the data and the associated lowering of estimates of growth potential. Our baseline outlook is consistent with that of recent months, but the new concern is obviously the financial markets that clearly are skittish about spillovers from the subprime market and about contagion in credit markets spreading beyond structured products.

Evidence within the Sixth District is consistent with this basically stable and positive outlook. Florida is seeing some notable spillovers from their problems in real estate, but some of these problems are idiosyncratic to the state—for example, the widespread inability to get wind and storm insurance. The rest of the District has not seen serious spillover into the broader economy. Just like the Greenbook, we view the fundamentals of the economy to be stable. Although the residential real estate market may take some time to stabilize, the problem seems generally contained. Our model suggests slightly stronger growth than the baseline Greenbook throughout the forecast period. Our trend growth rate has not been reduced quite as much as the Greenbook's, and our inflation forecast is not as favorable. At this juncture, we are not ready to give much weight to some of the more extreme alternate Greenbook scenarios. We certainly recognize more uncertainty and volatility than at the last meeting, but we're still expecting results essentially in line with the baseline Greenbook forecast.

In the past few days, I have had substantive conversations with some well-positioned credit market observers, including managers of large investment portfolios, suggesting that the skittishness of financial markets is not likely to abate until later this fall. They have suggested that the choppiness in financial markets will be the rule in the near term and, very important, that the threshold for what constitutes a shock is now much lower than usual. I believe that the correct policy posture is to let the markets work through the changes in risk appetite and pricing that are under way, but the market observations of one of my more strident conversational counterparts—and that is not Jim Cramer [laughter]—are worth sharing. This party sees problems in the subprime structured debt market spreading to the CLO leveraged-loan market and, in a knock-on effect, to repo and commercial paper markets as well as to investment-grade corporate credit. This party points to nonprice rationing, commercial paper rollover risk, and general CDO contagion caused by the damaged credibility of rating agencies and contraction of collateral values. This party argues that treating the widening of credit spreads as normalization ignores substantial subsurface potential dislocations as evidenced by the collapse of American Home Mortgage Corporation. All that said, another counterpart noted a large pool of money now on the sidelines that is ready to provide financing for reasonable deals if prices fall low enough. Importantly, a large portion of this money comes from reliable long-term sources of investment, pension funds and insurance companies.

Notwithstanding some descriptive rhetoric, this is not the credit crunch of the late 1980s, when the traditional financial intermediaries were strained for capital. The traditional investors are still out there with substantial liquidity, and they are just temporarily on the sidelines for understandable reasons and, barring further shocks, should return to the markets in force later this fall. The dislocations in the financial markets call for a posture of vigilant monitoring of developments but nothing more for now.

Regarding the balance of risks, it is early to materially adjust the weighting of GDP downside versus inflation upside risks. But I have heightened concern, as many of you do, about the continuing housing sector weakness combined with some potential of credit market turbulence in time affecting business investment and consumer confidence and thereby the real economy. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. The Boston staff forecast is broadly consistent with the Greenbook forecast, with export-led growth being significantly offset by weakness in residential investment, resulting in a gradual increase in the unemployment rate and core PCE inflation settling around 2 percent. The Boston staff forecast is somewhat more optimistic on residential investment but also has somewhat higher potential than the Greenbook forecast. My own view is that residential investment is likely to be as weak as in the Greenbook forecast but that potential may be closer to Boston’s estimate. Taken together, weak residential investment and somewhat stronger productivity, along with the possibility that construction employment will be more depressed going forward, may result in more of an upward drift in unemployment, helping to reduce some of the concerns with labor market pressures on inflation. However, given the similarities in the forecasts, well within standard errors, at this time it is probably more important to highlight the risks to the forecast. It is notable that the rather benign outlook of the forecasters is in marked contrast to the angst I hear when talking to asset and hedge fund managers in Boston. The angst is new and reflects heightened concerns with the financial ramifications stemming from subprime mortgages.

Recent developments in residential markets are of potential concern. They have been raised by many around the table. Over the past several years, large homebuilders have been able to increase their market share. Given the use of subcontractors and with little obvious economies of scale, the primary advantage of large homebuilders would seem to be access to external finance, which allows them to purchase large tracts of land. When housing and land prices were rising, particularly in fast growing areas of the country, this access provided a significant advantage over the small builders that could not tie up significant resources in land. However, what provided a competitive advantage in the first half of this decade now places a significant strain on large homebuilders. A large investment in land whose price is falling is aggravating the problem these builders have with unsold inventory and depressed prices for new homes. Not surprisingly, the largest homebuilders, which account for nearly a quarter of homes sold, have equity prices trading lower than at any time in the past year, and recent earnings announcements have highlighted significant write-downs in land values. The low equity prices of homebuilders seem broadly consistent with residential investment remaining quite weak well into 2008.

Financial market disruptions are likely to be a further impediment to the housing market and potentially provide a channel for problems to extend beyond residential investment. A number of financial instruments, such as the 2/28 and 3/27 mortgages that were widely used last year, are no longer readily available. Furthermore, the originate-to-distribute model has been disrupted by the heightened uncertainty surrounding CDOs and CLOs that we heard about earlier this morning. There seem to be two significant developments. First, the liquidity of these instruments has declined, making valuation assessment difficult. As lenders have made margin calls, forced liquidation of collateral in illiquid markets has further depressed the market. While of concern, I would hope that this is only a short-run effect. The second development of concern is that many investors have been relying on rating agencies to evaluate credit risk but the underlying credit risk is relatively opaque and the correlations between tranches may not have been fully appreciated. If investors have lost confidence in the rating agencies to accurately assess credit risk for structured products, the market could be impeded until confidence is restored. Since similar structures are used for financial instruments besides mortgages, getting secondary market financing for a broader range of financing needs could be difficult, and external financing for some borrowers could be affected. This has been reflected in the widening spreads for riskier corporate bonds, where the spreads have widened from unusually low levels and are still relatively narrow compared with earlier periods of significant financial disruption.

While recent problems are not compelling enough for me to have a significant disagreement with the forecast presented in the Greenbook, the risks surrounding that forecast on the downside have increased. I remain concerned that higher oil prices, a falling dollar, and tight labor markets pose upward risks to the forecast of inflation, but recent events have significantly raised my estimate of the risk of a slower economy than I would have predicted a few weeks ago.

CHAIRMAN BERNANKE. Thank you. It’s now 10:40. I’m informed the coffee is ready. Why don’t we break until 11 o’clock?

[Coffee break]

CHAIRMAN BERNANKE. Let’s reconvene. President Poole.

MR. POOLE. Thank you, Mr. Chairman. At the beginning of the break, two of our leaders made a special point of indicating that I was first up after the break. I guess that was an invitation to be fast and quick. [Laughter] I'll try.

My overall impression from my business contacts is that things are more of the same rather than anything very much different. I would note that the financial market upset is too recent to have affected the plans of companies operating in the real economy. Obviously financial firms are scrambling. There seems to be something of a disconnect between my trucking industry contacts and what I see in the industrial production numbers. The industrial production numbers suggest that goods production is rising; I don't know how they're moving, but they don't seem to be moving by truck. One big over-the-road trucker says that loads are down 8 percent year over year. The company has already cut trucking capacity 10 percent. He expects another cut of 4 percent by the end of this year. He's trimming capital spending next year for trucks. Obviously they see the business as being pretty slack. Incidentally, nobody is talking about any particular labor market pressures. Another big company probably best known for the color of its brown trucks [laughter] says that the industry overall is flat year over year. It believes that the outlook is somewhat more optimistic than recent experience. The international business is booming. The Asia-Pacific region is shipping an awful lot of goods to both the United States and Europe. My contact noted something that I thought was sort of interesting. He said that there is some diversion from air freight to water transport—I guess because of the enormous cost difference, but it suggests that there may be a little easier inventory situation or something that is making that diversion make sense. This company is very much in a cost-cutting mode because they have a big infrastructure, demand is relatively slack, and they have a lot of cost built in; and so the only thing they can do when they can't build volume in the short run is to cut costs. That company's major competitor is much more optimistic and has capital spending plans for fiscal ’08, which ends in May of next year, up 20 percent from this year and sees a pretty strong business situation at least going forward.

A contact in the restaurant industry says that restaurant prices are rising everywhere and volumes are falling, but overall business conditions are about the same. The restaurant industry has been seeing that. A contact with a major software firm is pretty optimistic. PC sales are running at or above expectation. My contact pointed out particularly that the quality of receivables has actually improved. They’re not seeing any problem with collecting on the software that they sell, and 94 percent of the customers are current on making payments. Even that is something of an underestimate because a lot of purchasers initiate the payment at the end of a thirty-day due period, and so the payment doesn’t come for another couple of days, despite our brilliant electronic clearing of payments.

A comment about the housing industry: Obviously the subprime issue is going to have a relatively permanent effect. It is just changing the characteristic of this industry. Underwriting was too lax, and that is changing. I think it is somewhat surprising that the builders have not scaled back more quickly—that they continue to sit on such a large inventory. Part of the reason is that, once a builder has started a development and has put all the infrastructure in place—the roads, the sewers, the water, and all of that—the only way to get anything out of that investment is to complete the subdivision. In addition, a subdivision that stops is a bad signal for prospective buyers because they don’t want to move into something that is sitting there mostly idle. So I think the builders have an intense interest in trying to complete these projects. But what that means, of course, is that, as they complete those projects, they are not initiating a lot because they’re taking, as Richard pointed out, some pretty big price concessions in many cases, and so they are probably not going to be initiating as many projects in the future.

My own bet is that the financial market upset is not going to change fundamentally what's going on in the real economy. First of all, bank capital is not impaired. So unlike in some past cases, when losses on real estate impaired bank capital and thus affected the lending in areas that had nothing to do with real estate, I don't think that's the case this time. Second, the fact that some LBO deals fall through isn't going to change what those companies are producing. The fact that the ownership hasn't changed doesn't change the company's profit-maximizing level of production in the short run. Obviously, that could change, but it seems to me that the best information that we now have is that this financial market upset is going to settle out and not have major repercussions on the real economy, putting the housing part aside. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. In the Fifth District we continue to see moderate economic growth, though it has been uneven across sectors in recent weeks. Manufacturing activity rebounded somewhat in June and July after several months of weakness, with our indexes showing increases in new orders and shipments. Activity at District services firms advanced at a steady pace, with solid revenue growth and a broader pickup in hiring. The retail sector, however, has lost much of the momentum reported last month, as softness in big-ticket categories continues to constrain revenue growth. On the employment front, District labor markets are increasingly taut, given steady hiring activity and slower labor force growth. In addition, in contrast to the Eighth Federal Reserve District, contacts continue to report rising wage pressures and difficulty finding qualified workers. Housing markets remain weak across much of the District. However, commercial real estate activity remains healthy, with steady demand reported for office and industrial space. Some contacts, however, have expressed concern about slower activity in the retail segment of that market. Turning to prices, our July surveys indicate increased inflation pressures. The average current rate of increase of manufacturers' prices has moved up for both raw materials and finished goods over the past few months, reversing the decline seen earlier this year. Price pressures on the services side have picked up as well, though expectations for future prices eased somewhat in the July report.

At the national level, we continued to receive fairly good news on inflation. After annualized rates of monthly core PCE inflation above 2 percent at the beginning of the year, we've now had four months of readings below 2. But there are still abundant reasons for caution, as President Moskow, for example, noted. I'll mention the Greenbook, which cites transitory factors—apparel and owners' equivalent rent, for instance—that have contributed to the recent moderation. The passing of these damping forces could well push core inflation back up in the near term. So although I think we have reason to take some comfort from recent inflation numbers, and I do, I want to wait to see more evidence, especially as growth moves back toward trend.

I still think the prospects for a return to trend growth are reasonably good, and my assessment of trend is still a bit higher than the Greenbook's, in part because I've not revised my estimate of productivity growth much in response to the GDP revisions. Obviously, there are downside risks to be concerned about, and financial market activity since the last meeting obviously raises some concerns. As far as we can tell at this point, the heightened turbulence of the past month is all pretty closely related to subprime and nontraditional mortgages and the leveraged financing of private equity buyouts in the corporate sector. These two market segments are relatively new, and they represent the latest manifestation of the broad, ongoing wave of financial innovation that we've been seeing over the past few decades. Because these two markets are so young, one would expect participants' risk assessments to be more uncertain and thus be more sensitive to what is learned from market events and incoming news. That said, developments in the past month have certainly been quite dramatic, and it looks less like rapid learning than it does rapid unlearning of what was previously viewed as known—although that, too, is of course a form of learning.

The implication of these revised risk assessments for the economic outlook and for policy depend on whether they affect business investment or household spending on consumption or new housing. At this point the answer to that question is not yet clear, but it's worth noting that, by many measures, corporate credit quality seems to remain pretty good by historical standards, and the buyout movement, as President Poole just noted, seems to have been more about restructuring liabilities and governance arrangements and less about funding capital spending. So it's not obvious why there should be dramatic effects on business investment. What about consumption? PCE was fairly soft last quarter, and this softness could be a harbinger of more-sustained weakness. The second-quarter softness may well be a one-time phenomenon, however, reflecting both the sharp rise in gasoline prices in the first five months of the year and some payback from the strong spending growth in Q4 and Q1. Moreover, the outlook for household income looks pretty good, with labor market conditions fairly firm and consumption gains showing no sign of slowing down. In addition, household net worth is coming off a relatively high base. Neither of these fundamentals seems likely to be seriously threatened by the repricing that's in train.

Housing, on the other hand, continues to be the predominant area of concern regarding real spending, and financial market developments have only heightened that concern. The Greenbook paints a fairly pessimistic picture. The decline in residential investment accelerates over the remainder of year and continues into next, and the inclusion of three "greater housing correction" alternative scenarios suggests that the staff is especially concerned, justifiably so in my view, with the downside risk to their outlook. But even though the housing market has definitely deteriorated, the outlook for housing is quite uncertain in my mind, and I continue to think that a more moderate decline is also possible and that housing could be somewhat less of a drag on growth than the Greenbook forecasts. At this point, however, the reassessment under way in secondary markets regarding housing-related credits still has a way to go, and until that process plays out, it's going to be hard to gauge the resulting magnitude of repricing at the retail level. About all I conclude at this point is that the outlook for housing is still awfully uncertain right now. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. The balance of risks has changed since our last meeting—significantly, in my view. Overall spending by households and businesses is weaker. Housing, of course, is significantly worse, and the underlying pace of productivity growth and potential growth seems lower. In addition, financial market developments have deteriorated with a very broad based increase in risk premiums, decline in some asset prices, pockets of liquidity pressures, and some disruption in mortgage markets and high-yield corporate credit markets. These developments in financial markets, even though they represent a necessary adjustment, a generally healthy development, have the potential to cause substantial damage through the effects on asset prices, market liquidity, and credit; through the potential failure of more-consequential financial institutions; and through a general erosion of confidence among businesses and households. If this situation were to materialize and these effects were to persist, they could have significant effects on the strength of aggregate demand going forward. The process now under way in financial markets could take some time to resolve, and finding a new balance could take a while.

We have modified our forecast in ways similar to the changes to the Greenbook. We have a slightly weaker second half of '07 and a slightly lower estimate of growth in '08 and '09, reflecting a downwardly revised estimate of potential growth. Our growth numbers for ’07, ’08, and ’09 look roughly like 2½ rising to 2¾ percent. Our inflation forecast is essentially unchanged, with core PCE inflation moderating to slightly under 2 percent over the forecast period. Our differences with the Greenbook are not trivial, but they seem well within the somewhat greater uncertainty we now face about the outlook for growth. The negative skew in our view of the risks to the outlook suggests a somewhat downward slope to the path of the fed funds rate going forward, to the appropriate stance of monetary policy, rather than the flat path assumed by the Greenbook. So even if financial market conditions stabilize and credit markets, particularly the mortgage markets, find equilibrium relatively soon and start to open up again, the growth risks have shifted a bit more to the downside around the lower expected path. In contrast, if the disruption in credit markets persists and liquidity markets are further impaired, then we face the prospect of a significantly weaker path to aggregate demand.

Inflation risks in our view, however, remain slightly tilted to the upside, but these types of risk are very different. The inflation risks are modest and manageable. We characterize them as skewed to the upside in part because of the differences across the Committee as to our desired individual long-run views about the inflation level, in part because of our differences as to what’s an acceptable period for bringing core inflation down to that objective, and in part because of different views about the structure of inflation dynamics in this economy. The risks to markets and ultimately to growth are very different. There’s a much longer negative tail in terms of the range of potential outcomes, and those risks are going to be harder for us to manage, partly because they depend on confidence. Because of these differences, I think it’s hard to counterpoise these two risks against each other and assess the balance between them. Of course, as always, we should weigh each by their probability, their effects, and our capacity to manage those effects. I think that the probability of a bad inflation outcome has diminished from what we would have said two quarters ago and the probability of an adverse growth outcome has increased. As I said, the latter risk is interesting and complicated in part because it might be harder to manage.

I want to make two points in this regard. First, a number of you have said that we want to see more evidence of adverse effects on aggregate demand before we change our view about the appropriate path of monetary policy. I don't really think that's the right way to think about this. If we took that approach, we'd inevitably be too late. Just as we think about inflation risks by looking forward and looking at expectations, we need to be forward looking and thinking about the potential implications of these dynamics of financial markets on the growth outlook. The information we have now about what's happening in markets and about the implications for credit markets and ultimately for confidence and demand is very stale and uneven. My second observation about this challenge is that what makes it hard is partly that you are seeing a combination of things. You are seeing a loss of confidence in the capacity of investors to assess underlying risk in mortgage markets in part because of uncertainty about what housing prices are going to do and in part because of uncertainty about correlations in losses across households. You are also seeing a collapse in confidence, as Bill described it, in how to value complex structured credit products, probably from the loss of faith in ratings and from the changes ahead in ratings methodology and in actual ratings. You're also seeing the difficulties that investors and counterparties now have in evaluating the risk in exposure to financial counterparties, and you're seeing in some ways reflecting all of this a diminished willingness to finance what's relatively high quality paper. We live in a system in which risk has been transferred much more broadly, but a lot of that risk has gone to leveraged funds that have much less capacity to absorb this kind of shock without facing a lot of liquidity pressures. The combination of these things means that you're seeing some impairment in the natural dynamic by which, when prices adjust, you have new people coming in willing to buy at those low prices. But these challenges in information and in diagnosing what's happening in markets mean that the process is not working as quickly as you might have thought in mortgages and in high-yield corporate credit. You can see this sort of skew in the risks reflected, I think sensibly, in the change of market expectations about the fed funds rate. You can see this balance in the distribution that Bill described, where you see a sharply negative skew in expectations about the path on the downside, and you see that come also in the context of relative stability of inflation expectations. That shift of mean expectations, in the distribution, does not come with any sense that the consequence might be some erosion in confidence about our capacity to keep inflation expectations down.

Now, in terms of policy, I personally wouldn't want to lean against the change in market expectations that we've seen so far, even though it has moved a long way in a short time. It's really important to give ourselves more flexibility than we now have to respond to what could be a rapidly deteriorating overall environment; that's just pragmatically essential, given that the range of foreseeable monetary policy actions we're likely to confront has broadened very substantially relative to where we were a quarter ago. The challenge, of course, is to figure out a way to acknowledge and to show some awareness of these changes in market dynamics without feeding the concern, without overreacting, about underlying strength in the fundamentals of the economy as a whole or in the financial system. That is a difficult balance, but I think it requires some softening of the asymmetry in our assessment of the balance of risks now.

An advertisement in response to a bunch of points made so far, including by President Fisher—the Morning Call that Bill Dudley's staff runs from New York is a very good, fairly textured prism of what's happening across these markets. They do a good job of trying to integrate a bunch of the anecdotes and the facts, and it's the most efficient device any of us have to check in about that evolving balance. It won't satisfy everybody's demand to have as much information as is out there, but it's a fairly efficient way to get a pretty good picture, and so I commend that to you. It's a really good, thoughtful, and reasonably deep collection of wisdom in the markets today.

CHAIRMAN BERNANKE. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Building on what the Vice Chairman just said, I have been listening in on that Morning Call. I've found it very useful, and it's certainly an opportunity to ask questions if you have them.

My forecast for the most likely outcome for output over the next few years is close to that of the staff—growth a little below potential for a few quarters, held down by the housing correction, and the unemployment rate rising a little further. Although some recent data for housing, consumption, and capital spending have been a bit to the soft side, we need to view those data against the background of a lower path for potential GDP and recall the tendency we've seen over the past several quarters for short runs of data that are a little hotter or a little cooler than we expected. I think this is sort of what it feels like when the economy is running at about 2 percent.

I see a number of reasons to think that moderate growth remains the most likely outcome going forward. First, as President Stern has stressed from time to time, is the natural resilience of the economy, its tendency to grow near potential unless something is pushing it one way or another. If anything, this resilience has probably increased over the past couple of decades, reflecting more-flexible labor and product markets. Second, global growth remains strong, supporting the growth of exports. I don't think this growth should be undermined by the fact that some unknown quantity of losses in the U.S. mortgage market is being absorbed by investors overseas, and the recent declines in the dollar will reinforce the effects of good foreign demand for U.S. goods and services. Third, the most likely factor to throw the economy off its potential is the financial markets. My most likely forecast assumed that the credit markets would begin to settle down over coming weeks with some, but limited, net tightening of conditions. I'll return to the subject in a bit, but my outlook in this regard does rest fundamentally on the very strong financial condition of the nonfinancial business sector and commercial banks and my expectation that most households accounting for the vast bulk of consumer spending will not find credit availability newly constrained. Finally, a resumption of growth in consumption should be supported by moderate growth in jobs and household income as the rebound in productivity is limited by the slower path for trend productivity and as income shares shift a little toward labor. I also assumed that households would not face a repeat of the rise in gasoline prices that has taken something out of recent consumption demand. Then moderate growth in consumption along with good export markets should, in turn, support business investment spending. I expect this path for output to be associated with core inflation remaining in the neighborhood of 2 percent. If energy prices follow the path in futures markets, total inflation would come down to 2 percent as well.

Basically I don't see anything in my central tendency forecast for the economy that would push inflation very much one way or another. The economy produces around its long-run potential. My NAIRU was 4¾ percent. Inflation expectations as best we can judge are anchored at something like 2 percent PCE inflation. I'm encouraged that the most recent data on prices have tended to confirm that core inflation remains fairly low. Most measures of compensation also do not show a marked acceleration that might be associated with producing appreciably beyond the economy's sustainable level of production. Risks around my inflation forecast remain to the upside, provided that output follows my most likely path. Utilization is tight. The recent run-up in energy prices could still feed through to expectations. The damped increase in productivity growth implies greater pressure on business costs and margins. Historically, nominal wages have tended to respond more sluggishly to changes in trend productivity than do prices, and this could be especially the circumstance when workers have seen real incomes held down by higher energy prices and business profit margins have been high.

At the same time, like many around this table, I think that the downside risks around the forecast of moderate growth and production going forward have increased. For some time I thought that the risk of a shortfall from our central tendency outweighed the risk of an overshoot, mainly centered on housing and consumption. But the financial developments of the last intermeeting period have appreciably increased those risks. As many have remarked, and Bill said so nicely, problems have spread from the subprime sector to a good part of the mortgage market more generally, including a severe restriction on securitization of nonconforming mortgages. Some business credit has been affected. Spread are widening across a broad array of instruments and ratings. This has occurred in an atmosphere of greatly increased volatility and uncertainty, partly related to the questions about the pricing of complex structured credits that weren't well understood and compounded by a loss of confidence in the rating agencies. The uncertainty is also a reflection of the perception that activity and prices in the housing market have not yet shown any signs of beginning to stabilize. I agree that we need to keep our focus on the effects of these developments and the financial markets on the economy, not on the distribution of wealth in the financial sector. The relationship of financial markets to real activity is multifaceted, not easily modeled with interest rates and stock prices, especially when markets are reconsidering risk. Tightening nonprice terms of lending, the reduced availability of credit, and simply the pervasive sense of uncertainty about the price of assets and cash flows can also affect spending. In such an environment, it wouldn't be surprising if businesses and households postponed capital investments.

I agree that this reassessment is a fundamentally healthy but somewhat messy correction to more-sustainable term and risk premiums. The most likely outcome is that it will be limited in duration and effect, and that's what I assume for my forecast. Well-capitalized banks and opportunistic investors will come in and fill the gap, restoring credit flows to nonfinancial businesses and to the vast majority of households that can service their debts. In the end, credit conditions will be tighter than they were a little while ago, for the most part justifiably so, and the effect on output will probably not be very large. To be sure, the latest episode comes on top of a rise in term premiums over the May to June intermeeting period. As a consequence, financial conditions have tightened noticeably in the past few months, even abstracting from market disruptions of the last week.

The federal funds rate has been as high as it has been in part to offset the accommodative effects of low volatility and tight term and credit premiums. I think that, even in the relatively benign adjustment scenario, we'll need to look at whether that rate is still sufficiently supportive of economic activity. But in the circumstances—that is, the benign adjustment—that reassessment can await further information about aggregate demand and further assurance that inflation will remain low. I assumed an easing of policy in 2008 and 2009 in my projections to take account of this. But we can't know how the market situation will evolve. I also believe that there's a non-negligible chance of a prolonged and very messy adjustment period that would feed back substantially on confidence, wealth, and spending. With the rating agencies discredited and markets vulnerable to adverse news on the economy, the period of unusual uncertainty could be prolonged. The greatest risk is in the household sector, where uncertainty about valuations of mortgages could continue to feed back on credit availability, housing demand, and prices in a self-reinforcing cycle. Moreover, as lenders and borrowers revise assumptions about house prices even further, credit from home equity lines of credit and mortgage refinancings will become even less available and more expensive, putting to the test the hypothesis that I have been working under—that the feedback from housing on consumption can be approximated by a wealth effect, not something more serious working through housing equity withdrawal. As I noted, I don't think this is the most likely outcome, but this tail of distribution is a lot fatter than it was only a month or so ago. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. As many of us have discussed around this table and many of you already mentioned today, it has finally happened. Per earlier discussions, the much-anticipated repricing of risk is upon us, and I think what we all have quickly recognized, then and now, is that the diagnosis was the easy part. More difficult is to figure when the symptoms would manifest themselves; harder still is to understand the second- and third-order consequences; and perhaps most difficult is to determine whether any treatment is needed or whether, as the Hippocratic oath suggests, the patient will recover on its own. Even orderly repricings have fat tails, as Governor Kohn mentioned, and what we find in the marketplace is complacency replaced very quickly by deep concern. Certainly, this recent market turmoil looks particularly pronounced in contrast to previous periods when trees appeared to grow to the sky and markets were priced for perfection in a world that seemed to most of us to be decidedly imperfect. Let me discuss two distinct matters—first, the state of the financial markets, building on the presentation from Bill, Tim, and others, and then the harder part, the impact on the broader economy—before trying to summarize the situation.

The financial markets have really provided wind at the back of the broader economy throughout this most recent period, even until a month ago. I think the open question, and the hardest, is whether those financial markets will prove sufficiently resilient—that is, whether the underlying shocks to the economy that might occur are exacerbated by this financial market situation or whether the worst of the outcomes are made less severe by the financial markets. Perhaps it is best to review the dynamics of different asset markets to assess their implications for credit availability during the forecast period. The threat is that these different asset classes increasingly look correlated, particularly in times of distress. Certainly, the events of recent weeks culminating in trading late Thursday and Friday of last week are troubling, driven by a combination of factors: first, symbolized perhaps by one financial institution that has unwittingly called its own liquidity into some question; second, a function of a reduction in confidence in markets themselves—a pullback in liquidity—with considerably less trust in underlying valuations, underlying collateral, and the underlying structure of markets themselves; and third, an expectation, at least in the mortgage markets, that there is still another leg down and so one way bets, at least for a period, appear insufficient to bring other opportunistic capital in at this point. The pullback was manifested in the difficulty of rolling over extendable commercial paper, as Bill and others have said, a lack of bid for anything mortgage related, a lack of trust in credit ratings, and a fear of using financial institutions as counterparties. The next period in my judgment holds out some promise, but not a guarantee, of opportunistic capital. Certainly, there are big fund raisings by investment banks and other private pools of capital at remarkable leverage levels, giving the potential that the pools of liquidity that are on the sidelines could quickly find their way back into the game.

Let me now turn to different asset markets to try to assess when we will know how they will figure themselves out and make sure that we are able to get some judgments before it is too late. So I will spend a moment on the bank and leveraged-loan markets, a couple of moments on the subprime market, and another moment on a third bucket of assets, which might be everything else, as we are trying to figure out whether there is real spreading. First, in the bank and leveraged-loan market, the volume of loans, as many of you know, is somewhere between $220 billion and $320 billion of committed capital in the pipeline. The underlying credits still appear quite strong, and I will tell you that I have a reasonably high degree of confidence that, in spite of the distress, these markets should work themselves out between now and the next FOMC meeting. We certainly won't see any return to the markets that people have gotten used to over the past several months and years, but I would be surprised if we didn't see opportunistic capital coming into these markets and bidding prices. Just to give you some idea, off that denominator of capital committed, we might see losses on the order of $30 billion or $50 billion. I would say that's a fairly conservative estimate. Bank debt, which is the most secured, might have discounts of 3 to 5 percent, should bids find their way into the market in the coming days; leveraged loans and high yields, discounts of about 10 percent; and second lien mortgages, discounts of 15 to 20 percent. Almost all of these are largely related to risk premiums, not credit quality. Real money is still in these businesses. Some of the hot money that was discussed earlier, some of these CLO buyers, are no doubt gone for some time. I think the most encouraging thing is the new funds that have begun capital-raising campaigns, even over the past weekend, looking to buy the distressed securities, market-force the commercial institutions that have been having it on their books, and mark it to market. Remarkably, many of the same commercial banks are prepared to stand behind these new leveraged investments with leverage of about 4 to 1. So I would expect that market to increase pretty quickly. Market functioning there is thus, in my judgment, likely to improve. Some deals are certainly likely to blow up, relieving some of these banks of their commitments. But in this market, because there are multiple gatekeepers and because valuing the underlying credit strikes me as not that time-intensive or taxing a process, it is likely in my judgment that, come fall, we will come to some new equilibrium.

I can be far less confident, however, about the subprime mortgage market. My base case assessment there has a much lower confidence level, both in terms of timing and in terms of outcome. The subprime market has about $1.4 trillion in outstandings, and there is considerably less certainty about the underlying credit. It is harder to measure and appraise the underlying pools. Recovery rates will be still harder to find. As a final note, which might have struck the markets last week, apparently more fraud is endemic to these pools, making valuation increasingly difficult. As a result, I am less comfortable about suggesting what the underlying losses might be. They might be $100 billion. They could be considerably more. I'm also less confident that there will be opportunistic capital coming back to these markets over the next thirty or sixty days. With another leg down, it could take considerably longer. As a result, I am quite a bit less confident that the market functioning will return as rapidly as we would hope. I am more concerned that, unlike the multiple gatekeepers we find in the leveraged-loan markets, for those that relied on the single gatekeepers, the credit-rating agencies, given that their credibility has been shot, it is much harder to see that this market will unwind itself in a rather calm and comforting environment, at least over the balance of 2007.

The final set of asset markets I'd speak a moment about is "everything else." What about everything else that is subject to structured products? What about everything else that is subject to complex financial instruments? Some questions arose late last week about the market integrity regarding those. I think it is just too hard to judge how that is going to work out. We are seeing losses showing up in some very unlikely places. I'd like to say that what we have witnessed over the past week is transitory, but for that set of asset markets, it is probably hardest for me to come to a broader judgment.

So what are the effects, then, on the broader economy? I agree with the point that President Stern made earlier that this judgment is extremely hard to make. I also agree with Governor Kohn's judgment that there is a very real downside risk if some of these financial market turmoil issues persist. If I look at some of the credit channels and at financial intermediaries and ask whether they are under stress, I see more dispersion of risk among similarly situated institutions. Some commercial banks may well be under more distress than others. I have no doubt that some investment banks are under more distress than others. We see some of this dispersion in credit default swaps and some of it in equity prices, but my sense is that the underlying fundamentals of their core businesses are very different from each other and from their competitors than they've been at any point in this cycle. For some of them to take losses on their own balance sheets of $3 billion, $4 billion, or $5 billion, as an investment bank, might not be hard to do when many of them have been picking up market share and using their own proprietary trading and agency businesses to steal customers and revenue from others. But for the balance, I think it is unclear how it is going to result. With many of the investment banks' quarters ending in August, the markets are going to put genuine pressure on them to come clean with their losses. I expect most, if not all, of them to do so. So I think come mid-September we'll have a clearer sense of what their own marked-to-market models suggest. What about the broker-dealers? Again, not principally their regulators but I suspect the markets are going to push them to come clean with what their losses are. Large financial institutions I would expect, though with less confidence, to take writedowns of their portfolios of leveraged loans and writedowns to some extent of their mortgage products to try to assure the investing community of their financial positions. I hope that the process would work out this fall, but as I mentioned, I'm less comfortable that we're going to get that kind of transparency with the regulated commercial banks than with some others.

Private pools of capital are also undergoing a real shakeout. For those with liquidity pressures, which will tend not to be the largest hedge funds or private equity funds, we will read about their problems, and we will read about their closings, over the coming weeks and months. The good news is that the largest among them have used the period of strong liquidity over the past year to more or less have quasi-permanent capital to term out their loans and provide capital so that they could take advantage in this period. I understand that there has been very little spike in margin calls where most of the assets rest in the hedge fund community. So for many of us who have talked about hedge funds bringing resilience to these markets, this is really a time of testing. I think the early news for the largest among them is quite positive.

Many of you have talked about what the other transmission mechanisms are for having GDP effects. The wealth effect is real. We have lost about $1 trillion in market capital in the past twenty trading days, and that can't be discounted. Questions about board room confidence and cap-ex in the second half of this year are equally real. My sense is that we are going to finally use that excess cash on balance sheets that many of us have long talked about. Finally, with respect to consumer confidence, though I think the recent data suggest that it's positive, I suspect that the next set of data we get will show a retreat from those numbers. It is very hard to judge how real consumers are going to react here.

Let me make two final comments. Opportunistic capital is a key here to a smooth transition. It's key to ensuring that what happened in the financial markets doesn't seep its way into the real economy. Of the equity investors that were using loose credit markets to get equity returns, the most sophisticated are focusing on and looking for equity returns in the debt markets. So many investors previously investing in equity are now looking to the debt markets, where they see a risk-reward tradeoff that is better than it has been in a long time. That gives me some confidence that opportunistic capital will come back to some of these markets. That said, rating-sensitive buyers will no doubt pull back given that ratings are less authoritative. So I will end where I began, which is looking at economic fundamentals. I think Governor Kohn talked about how the capital markets, the financial markets, and the labor markets have proven to be absolutely core to the resilience of the broader economy. To the extent that there is now an unfortunate timing between weakness in the financial markets and some potential weakness in underlying credit, we can rely less on the financial markets to come to the rescue, should that circumstance occur. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you very much. I was looking back at my notes of the past few meetings and noted that the position we are in is a bit like that in the May meeting, at least the way in which people are characterizing things—that economic fundamentals still suggest moderate growth for the intermediate term but that uncertainty has gone up dramatically. Then, in the June meeting, we said that uncertainty went down, and now we’re saying that uncertainty has gone up again. So we seem to have a little volatility just like the markets do, but obviously, we are responding to what the markets are doing. Clearly, there are key downside risks. The risk that I’ve mentioned many times before that concerns me and that we now have more data on is productivity and potential growth. With the revisions since ’03, the compounded growth rate of productivity is down to 1.4 percent from 1.8 percent. The revision is fairly significant over this period. I am not ready to go quite as far as the Greenbook has gone in marking down potential, but I do think that it is a real possibility, and it is very closely linked to my concerns about investment, which obviously the financial market volatility has affected.

Orders and shipments of durable goods have been a bit choppy, and we haven't seen the kind of rise that we would expect, given the balance sheets and given all the other sorts of strength that we would otherwise see in the economy. Nonresidential investment has been strong, and there is still some strength in mining and drilling, but I have a lot of concerns outside that area. As a number of people have mentioned, there is little change in the actual cost of capital, even though spreads have risen, because the Treasuries have gone down. But with more uncertainty and more volatility, as Governor Warsh and others have mentioned, undoubtedly that is going to weigh heavily in the board room. It is going to weigh heavily on capital expenditure plans. So all other things being equal, businesses are likely to be a bit more cautious going forward. But that caution with respect to investment and the slowing of the investment recovery make it harder to be optimistic about a rebound in productivity growth. So that's something that I watch very closely because I think it is a very, very important effect.

On the consumption-saving balance, certainly we still have very robust labor markets—average growth of 120,000 private-sector jobs per month this year, which is a step down from last year but still a robust level. We have a transition from a sort of cushion of the strong equity market offsetting the negative wealth effect in the housing market. Now, if they become more correlated—and, in particular, more correlated and both go down—that obviously would raise some concerns about slowing consumption growth and increasing saving. So I think that is something to be very mindful of.

With respect to housing and financial markets, in the senior loan officer survey with respect to mortgages, when you drill down into it, both in April and in July more than 50 percent of the senior loan officers reported that they are tightening credit standards for subprime, and about 15 percent are for prime. That is fairly significant. The depository institutions are pulling back, and we have certainly heard reports that some of the large institutions are no longer offering 2/28s or 3/27s. There has also been a tightening outside the depository institutions. The reason for part of the tightening is that some of the mortgage providers are simply no longer there. We have had dozens of smaller providers of credit go out of business, and the ones that are still there are obviously changing their underwriting standards. As President Rosengren mentioned, we are seeing some questions about the originate-to-distribute model. We are also seeing volatility on the financial market side. But part of that volatility, as a number of people have expressed, is about concerns about what is going into those securities in the originate-to-distribute model. That may raise some questions in the long run about how much we're going to see this market come back. I share Governor Warsh's concerns, not only from the point of view of the financial markets but also regarding the structure of mortgage markets—that we may be seeing a little less of that kind of structure than we have seen in the past. So that, combined with the tightening of standards more broadly, may make financing more difficult to get. This, of course, is occurring in many parts of the country—not all parts but many parts—where housing inventories are very high and in some cases are still rising. Obviously, that puts a lot more pressure on the housing market, and I think the drag from the housing market, as many of you said, is likely to continue.

Fortunately, the financial market volatility is coming at a time of relative strength in corporate balance sheets. Debt-to-asset ratios have been declining, and liquid assets as a percentage of total assets have been high. That provides much more of a cushion, much more insurance. As President Poole mentioned, the banking system is in a dramatically different state from when we had challenges before in the housing market or major challenges in financial markets. The major banks have very high, relative to historical trends, capital-to-asset ratios in excess of the required minimums. They have been very, very profitable. If you look at the largest banks—and I was just looking at some that were most involved in the leveraged-loan market—they each have tier 1 capital on the order of $80 billion to $90 billion. The earnings for each over the last year are $25 billion to $35 billion. There is also a lot of discussion of the amount of highly leveraged loans in the pipeline—on the order of $300 billion. But unless they have to take losses on that $300 billion, which is not going to happen, they have very thick capital cushions and very high earnings. So at least for the foreseeable future, this will just be more a challenge to their earnings than a challenge to capital.

That is extremely important because the banking system can provide a critical automatic stabilizing mechanism, as it did in 1998, when there are liquidity challenges. In 1998 we had the Asian crisis that spread to Latin America, then the Russian crisis, and LTCM. There were some parallels to what we are seeing now: Risk spreads were rising very dramatically after a period of near-record low levels, and we saw the yields on Treasuries go down quite a bit because that's where people were going. But what was happening in the system was that people were pulling money out of various funds and instruments and putting it into the banking system. So the banks do act as liquidity providers and liquidity insurers, and I think we're starting to see a bit of that now with people pulling out of some of these instruments and so more is flowing into the banks. It's a little early to tell. We haven't gotten enough data on that. But anecdotal reports are consistent with exactly what happened in 1998. As people need an alternative to commercial paper or other short-term sources of credit, it can be very helpful that the banking system will have more liquid resources to do that, and obviously it's a strong capital environment. Also, as

Governor Warsh mentioned, there are more large private pools of capital to step in to bid for the LTCMs, if such things happen. When we look back to LTCM, only one offer was on the table—from Warren Buffett—and there were a lot of questions about how serious that offer would be. Now a number of players have the wherewithal to be the equivalent of that in this market, which has the potential to be quite helpful. There are obviously more potential downside risks, but a lot of stability exists in the banking system to deal with some of these risks and, given the strength of the balance sheets, should be helpful in the short or the intermediate run.

With respect to inflation, as many people have mentioned, a number of risks are still skewed to the upside, with robust global growth, potential pass-through, some previous high energy prices, and a lower dollar. So I still think that there is much more of a potential upside skew to inflation than a downside skew. Basically, I would start taking my first steps, but just very first steps, a little more toward a balance of risk because of the greater downside to growth. Although there are still upside risks to inflation, as Vice Chairman Geithner mentioned, overall we might want to think of moving a little more toward a greater balance of risk but still with a predominant concern for inflation.

CHAIRMAN BERNANKE. Thank you. Governor Mishkin.

MR. MISHKIN. Thank you. Well, except for the fact that we have had a benchmarking of potential GDP downward and greater weakness in housing, my forecast is basically similar to my forecast at the last FOMC meeting and is consistent with the Greenbook forecast—that we would have a return to trend growth a bit later than we had expected but by mid-2008 and 2009. In regard to the issue of inflation, let me just provide a little information on the model that I'm thinking about. You know that I think a key driver of inflation, of course, is inflation expectations, and that there are good arguments to say that they are grounded around 2 percent.

We have been seeing numbers continually coming in that are very consistent with that, which gives me more and more confidence that, in fact, inflation is gravitating strongly to this 2 percent level.

But I want to talk a bit about the issue of output gaps because I think that it is important, even if you think that inflation expectations are extremely important, not to have a *deus ex machina* view of the inflation process, which is that inflation is caused by expected inflation and then where does that come from? So I think that resource utilization is important. However, the problem is that what is really important is not just current resource utilization, which is what we tend to put in our econometric specifications, but also the future expected path of resource utilization and output gaps. Of course, one problem here is that it is hard to measure. Also, if you are doing monetary policy right, then there is an expectation that you are going to do the right things to eliminate those output gaps. In fact, that is exactly what is in our forecast and exactly what our policies have been doing. So one reason I think, in the current juncture, that it is not critical to talk about output gaps a whole lot is that basically we are doing the right thing. That context gives me further reason for saying, given our forecast, that a 2 percent inflation number is where we are heading, just not now, and that the trend is solidly in place. But we are going to stay there for the foreseeable future, unless we screw up somehow, and we are not going to do that. [Laughter]

One key point that makes me a little different from the Committee on inflation is that I do not see the upside risks as being greater than the downside risks. I really do see the risks as being quite balanced on inflation—again around this 2 percent number. Yes, we do have some temporarily good news, and it is going to be unraveled a bit, but it is still consistent with the

2 percent overall trend. In terms of output gaps and future expectations, I don't see those getting people thinking that we're going to have too tight resource utilization.

Let me turn to the issue of the financial markets because, obviously, that is the big gorilla sitting at the table. I don't see what is happening now as a direct spillover from the subprime market. It is very consistent with the way that Bill was talking about this issue. Of course, the media are making the subprime market into the whole story, but I think it is just not the right story. The subprime market is really a very small percentage of the total credit markets. What I think is much more important is that people are questioning and reassessing the quality of the information that exists in financial markets. The point of the subprime market is just that we now trust the credit-rating agencies less. Basically what I think is happening in a way is quite a good thing: We were concerned that the markets were a little too optimistic, that there was too much opacity, and that people weren't worried about it. Now, in fact, they are worried about it, and I think that is fundamentally a healthy situation. Also, the parts of the market that are having the problem are the most opaque parts, it is not clear that they are particularly important to the things we really care about in terms of our policies, which is what will happen to aggregate demand and, therefore, to both inflation and output. So at this point, I take the view that this could all end very well and could in the long run make the situation healthier, and this view is consistent with what Governor Kohn was pointing out.

But I do worry that this reassessment could actually find more—what's the right word?—skeletons in the closet or bad things happening than were expected. In the past, we've seen that, when the quality of information gets questioned and people don't think the marketplace is providing the right information, headwinds in the economy can become quite significant. The most recent episode that I am thinking about, of course, is the episode of Enron and its aftermath, in which a key reason that the economy was so slow to recover was that the quality of information was impaired. Then, people realized that the markets in fact did have some slight elements of financial instability—again, not too serious because the banking system was in such good shape. We could have a similar situation occurring now. So the sort of bad scenario that I see is an Enron-type scenario, not something much worse than that. But we really have to keep on top of this. It means, I think, that there are greater downside risks to the forecast. The survey of all of us indicates that people are now much more worried about downside risks than they are about upside risks. I think that is absolutely right, and, in fact, it could get a lot worse. So the way I would view the situation is that right now we should be pretty calm, but we want to monitor it very carefully and be ready for some potentially bad things to happen and just hope that they don't. The kind of scenario that we're seeing in the Greenbook is one that is going to play out. Thank you.

CHAIRMAN BERNANKE. Thank you, and thank everyone. President Lockhart.

MR. LOCKHART. I want to make a comment following the remarks of Governor Warsh and Governor Kroszner related to the calendar of potential market stabilization and the leveraged-loan market. Both of you cited a backlog of $300 billion or something maybe slightly less than that. In one conversation I had, a market observer cited $470 billion and argued that it would take well beyond our September meeting, into October and November, before the market would clear in that particular part of the market. So to connect this comment to Governor Geithner's comment about maintaining some flexibility as we go into the fall and observe the markets, we have different estimates out there of how much backlog there is, and therefore we are likely to be still facing a great deal of uncertainty at our September meeting.

CHAIRMAN BERNANKE. Thank you for the useful discussion. As usual, I am going to very briefly summarize what I heard. I will be happy to take any comments on that. Then I just want to make a few short points. Again, most of the key points have been made.

Most participants expect growth to remain moderate over the forecast period. Despite lower household wealth resulting from weaker house and stock prices, consumption is likely to continue to grow as labor markets remain strong, real incomes increase, and gasoline prices moderate. Business investment should also grow moderately, although lower productivity and higher volatility could be drags on investment. Commercial real estate, in particular, may be slackening, but it retains good fundamentals. The global economy is strong. Industrial production is expanding at a reasonable pace. However, downside risks to growth were noted and perhaps received somewhat greater emphasis than at past meetings. Most notably, housing appears to have weakened further, with sales of new and existing homes declining and inventories of unsold homes remaining high. Homebuilders are experiencing financial strains, and there is downward pressure on home prices. Spillover on consumption spending is not yet evident but is a possible risk.

In this regard, developments in credit markets received considerable attention. On the positive side, the repricing of risk and the reevaluation of underwriting standards seem appropriate. Liquidity still exists, credit is still being extended, and markets may work out their problems on their own. A lower dollar and lower long-term Treasury rates also tend to offset financial tightening. However, higher risk premiums, tougher underwriting, and greater uncertainty may constrain housing and investment spending, leading to broader macroeconomic effects. In more-pessimistic scenarios, dislocations in credit markets may last awhile and have a more substantial effect on credit availability and costs for businesses as well as for homebuyers.

The possibility of contagion or severe financial instability also exists. Many participants took note of the NIPA revisions and their implications for productivity growth, consumer saving, and unit labor costs. Meeting participants tend to put potential growth at higher rates than the Greenbook.

Views on inflation are similar to those in previous meetings. Recent readings are viewed as reasonably favorable. However, risks to inflation remain, including the possible reversal of transitory factors, tight labor markets, the high price of commodities, and higher unit labor costs resulting from lower productivity growth. In all, the risks to inflation remain to the upside. That is my summary of what I heard. I'm sure a lot more could be said. Any comments?

If not, let me just make a few additional comments. There have been two very important developments since the last meeting. The first was the downward revision to the NIPA growth numbers. It's not obvious yet, of course, how much of that reflects a permanent decline in productivity and how much is transitory. But certainly the best guess is that some of it is more long term in nature. I think the main point I'd like to make is that the implications of this downward revision for inflation and monetary policy, except perhaps in the very short run, are not obvious. The question is, What is the effect of the lower productivity growth on aggregate demand? We have examples of both types of phenomena. In the late '90s, the pickup in productivity growth stimulated a very strong boom working through the stock market, consumption, and investment, so it led to an overheating economy, whereas in the earlier part of this decade, productivity growth picked up again but with weak aggregate demand. We had a jobless recovery associated with that. So it remains to be seen exactly how aggregate demand will respond to these developments. I do think that perhaps that in the very short run, given wage behavior and unit labor costs, if I had to choose, I would say that there is a slight bias toward higher inflation and tighter money. In the longer run, you would expect to see lower long-term rates because of slower growth.

The second issue that has been widely discussed around the table is the financial market. It is an interesting question why what looks like $100 billion or so of credit losses in the subprime market has been reflected in multiple trillions of dollars of losses in paper wealth. So it's an interesting question about what is going on there. I think there are three reasons that the financial markets have moved in the direction they have. First, there has been a widespread repricing of risk. That is, obviously, a healthy development, particularly if there is no overshoot, which is a possibility. But all else being equal, it is restrictive in terms of aggregate demand, and it makes our policy tighter than it otherwise would be. The second reason for the changes in markets is that there has been a loss of confidence in the ability of investors to evaluate credit quality, particularly in structured products. There is an information fog, as I have heard it described. This is very much associated with the loss of confidence in the credit-rating agencies. I think one of the implications of this is that some of the innovations we have seen in financial markets are going to get rolled back. We are going to see more lending taken out of originate-to-distribute vehicles and put back onto portfolio balance sheets. So the question is how much effect this adjustment process will have on the availability of credit. The third reason that I think the markets have reacted as much as they have is concern about the macroeconomic implications of what is happening. In particular, there is a fear that subprime losses, repricing, and the tightening of underwriting standards will have adverse effects on the housing market and will feed through to consumption, and we will get into a vicious cycle. That certainly is reflected in the expectations of policy.

I am not going to go through all the things that are going on now in the markets. You have had very good reviews of that. Obviously, the markets right now are not functioning normally. Some conduits of credit are simply closed or frozen. A number of companies are having difficulties with short-term finance, and so, per President Fisher's comment, we are watching those things very carefully. We are prepared to use the tools that we have to address a short-term financial crisis, should one occur. In the longer term, of course, our policy should be directed not toward protecting financial investors but, rather, toward our macroeconomic objectives. That is very important. Then the question is what the long-run implications of the financial market adjustment will be for the economy. I think the odds are that the market will stabilize. Most credits are pretty strong except for parts of the mortgage market. But even so there will be notably tighter credit, tighter standards, probably some loss of confidence in markets, and higher risk premiums that will on net be restrictive. This restrictive effect could come in various magnitudes. It could be moderate, or it could be more severe, and we are just going to have to monitor how it adjusts over time. Again, there is a bit of a risk—and tail risk has been mentioned not only in a financial sense but also in the macro sense—that, if credit is severely restricted so that we get feedback from lower house prices, for example, into the financial markets, that situation would be difficult to deal with.

Those are the two major issues that people have talked about. Just very briefly on the overall assessment—on the output side, economic growth looks a little softer to me, mostly because of housing. There are also some slightly worrying developments in terms of automobile demand, which suggest some weakening in consumer spending. But there are some strong elements as well. Also the labor market has marginally softened. The unemployment rate is about 25 basis points above its recent low; so there has been some movement, and I still expect to see some reduction in construction employment. So I think there is a bit more softness and there are a few more downside risks to output than at our last meeting. Like others, I think the recent inflation data are moderately encouraging. I continue to see risks. If you're not satiated with risks, I'll add one more, which is that if the housing market really weakens and people go back to renting, we could get the same phenomenon that we saw last year, by which rents are driven up and we get an effect working through shelter costs. So I agree with those who still view the risk to inflation as being tilted to the upside. If there are no comments or questions, let me turn now to Brian to discuss the policy action.

MR. MADIGAN.[3] Thanks, Mr. Chairman. I'll be referring to the package labeled "Material for FOMC Briefing on Monetary Policy Alternatives." Financial markets have experienced exceptional strains over the intermeeting period. The Bluebook provided a thorough review of these developments through Thursday, and I had intended to provide only a brief summary of and update on those developments, as in exhibit 1, and some thoughts on their implications for monetary policy. But given the extensive discussions of this topic so far this morning, those points seem all to have been made, and I will turn directly to a discussion of policy alternatives.

As noted at the top of exhibit 2, the risk of weakness in aggregate demand stemming from tighter credit conditions and disruptions in credit flows formed part of the rationale for the 25 basis point easing of alternative A that was presented in the Bluebook. Even if your views about the modal outlook are similar to the Greenbook baseline forecast, you may be concerned that the deterioration in credit conditions, the significant increase in market volatility, and potential declines in confidence have tilted the risks to growth distinctly to the downside. You may also see the recent spate of soft spending indicators as having raised the likelihood of sluggish growth in aggregate demand. The considerable gap between the Greenbook-consistent real federal funds rate, the dashed green line in the panel to the right, and the range of model-based estimates of the equilibrium real federal funds rate, shown in red, may add to questions about the possibility of weaker growth than in the staff forecast and reinforce your belief that some easing of policy is appropriate. Moreover, you may be more optimistic than the staff about either productivity growth or the NAIRU or both. Indeed, as I mentioned earlier, several of you noted just such optimism in the narratives accompanying your trial-run projections. The financial stimulus from a policy easing, of course, would help support growth directly. A policy action might be highly potent in current circumstances, possibly helping to buoy consumer and business confidence in a period when sentiment may well be deteriorating. You may

[3] Materials used by Mr. Madigan are appended to this transcript (appendix 3).

also believe that the inflation outlook would support a near-term policy easing. Core inflation readings have been relatively subdued in recent months, wage growth seems to have remained moderate, and labor market pressures may be starting to ease, although the evidence on that score is so far quite limited. In the staff forecast, core inflation converges toward 2 percent, an outcome that, judging by your projections, some of you would find acceptable—and your forecasts suggest that you think the odds favor a prompter and slightly steeper decline in inflation.

In contrast, as noted in the bottom left-hand panel, you may concur with the Greenbook forecast for spending and prices, given its policy assumptions, but judge that the forecasted trajectory for inflation is too slow and leaves inflation at a level that is too high to foster optimal economic performance. If so, you may be inclined to firm policy ¼ percentage point, as in alternative C. The decline in core inflation in the Greenbook is slight and slow. As shown in the bottom right panel, the optimal control simulation in the Bluebook based on a 1½ percent target for core PCE inflation suggests an increase in the federal funds rate of about ¾ percentage point over the next year. Credibility or learning effects that might flow from a policy firming, as in the simulation, could limit the output and employment sacrifice necessary to foster a lower path for inflation. Moreover, you may agree with the staff's baseline assumption that the effects of current market strains will prove temporary, that markets will soon resume clearing, albeit at higher and perhaps more-rational and more-sustainable spreads, and that the restraint on aggregate demand will be modest. Finally, you might see the risks to the inflation outlook as tilted to the upside, given high levels of resource utilization and increased energy prices.

Alternative B, discussed in exhibit 3, may be seen as an appropriate balancing of the considerations motivating alternative A, on the one hand, and alternative C, on the other. Under this alternative, the Committee would leave the stance of policy unchanged today. The statement would acknowledge the recent volatility of financial markets and tighter credit conditions but would also convey an expectation that moderate growth will likely continue. Core inflation would be characterized as subdued in recent months but subject to upside risk. The Committee would expressly refer to increased downside risk to growth but indicate that its predominant policy concern remains the risk that inflation will fail to moderate as expected.

A rationale for alternative B is laid out in the upper left-hand panel. In the baseline Greenbook forecast, the economy expands at a moderate pace, resource pressures ease slightly, and core inflation ebbs to 2 percent with the federal funds rate held at its current level through next year. That forecast may be close to your own view about the modal result, and you may see it as an acceptable outcome. As shown to the right, optimal control simulations based on the Greenbook baseline and an assumed core inflation objective of 2 percent would suggest leaving the federal funds rate unchanged for the rest of the year before easing slightly. Returning to the left-hand panel, holding steady at this meeting would also be consistent with the Committee's past behavior as captured by the estimated outcome-based and forecast-based policy rules presented in the Bluebook.

You may also believe that alternative B represents a suitable weighting of the risks. For example, even if you are a bit more optimistic about potential growth and the NAIRU than the staff, you may nonetheless see maintaining the federal funds rate at its current level as an appropriate risk-management approach, given the upside risks to inflation and the higher costs should they be realized. Careful consideration of the most recent developments also may incline you toward alternative B. In particular, even if the incoming data and increased financial market strains of recent weeks incline you to believe that the downside risks to growth have increased, you may be quite unsure about the extent of those risks and not wish to exaggerate them. As suggested by yesterday's developments, it is not inconceivable that markets will soon begin to right themselves and that the Greenbook baseline assumption of only modest financial restraint will prove correct. In these circumstances, watchful waiting may be the best approach in order to allow more information to accumulate that will enable you to better assess the likely eventual adjustments of market prices and flows and the appropriate policy response. Indeed, you may be especially concerned about the risk of overreacting (or being perceived as overreacting) to temporary market developments—particularly if you see a significant probability that markets could misinterpret changes in the stance of policy, or in your words, as an indication that you place a higher priority on financial market stability or economic growth than on price stability. Moreover, your inflation concerns may not have diminished much, if at all, over the intermeeting period. While the most recent core inflation readings have been relatively low, you may concur with the staff that some of that good performance will likely prove transitory. Also, overall inflation has remained high, and with resource utilization elevated, you may be worried that high rates of overall inflation could allow inflation expectations to move higher.

The statement associated with the revised version of alternative B is provided in the bottom panel. Given the volatile market conditions of late, getting a reliable read on market participants' expectations at this point is difficult, but an announcement roughly along these lines seems to be anticipated by most market participants. Notably, the statement explicitly mentions downside risks to growth. That mention may be seen as opening the door a crack to future easing or at least giving the Committee greater scope to move in that direction. Although only a minority of market participants apparently expect the Committee to point explicitly to downside risks to growth, a sizable market reaction to the inclusion of such a reference in paragraph 4 seems unlikely, as the Committee still would state that inflation risks are its predominant concern.

The final exhibit is an updated version of table 1 for your reference. Changes relative to the Bluebook are shown in red.

CHAIRMAN BERNANKE. Thank you. Are there questions of Brian? If not, let's begin our go-round. President Fisher.

MR. FISHER. Well, Mr. Chairman, against this background of skittishness, my best advice would be to recognize, to an extent, in our statement what is going on in the marketplace, what ails the marketplace. The best guidance would be that we must not ourselves become a tripwire. I think we have to show a steady hand. I rather liked the reference to the Hippocratic oath earlier, "Do no harm." I think we can best accomplish this by acknowledging market turbulence and yet not implying that we are given to a reaction that might create a moral hazard. I'm particularly mindful of the discussion in the press and by security analysts of a so-called Bernanke put, and I want to make sure that we do not take any action or say anything that might give rise to an expectation that such is to occur. Therefore, I would suggest that alternative B offers the best policy response. That is, I am in favor of keeping the rate where it is. The wording in the second paragraph acknowledges that there has been volatility in the markets. I think it addresses the points Governor Kohn made about growth in employment, incomes, and a robust global economy. I've waited a long time to see the word "global" in these statements. [Laughter] Whether it gets left in or not, it does reflect reality. I'm mindful of President Geithner's point of softening a little, and yet that is where I worry that we might become a bit of a tripwire. I would under normal circumstances be somewhat inclined toward the last paragraph in alternative A, and yet I didn't hear around the table, nor do I fully believe myself, that things are exactly roughly balanced. I take the point that was made just now in the presentation that, by saying "downside risks to growth have increased somewhat," we are opening the door.

The only refinement that I might suggest is that we soften a little the word before "policy concern remains the risk that inflation will fail to moderate as expected." By taking out the word "predominant," I would leave that up for consideration. I actually talked to somebody about this earlier; I want to acknowledge that. But otherwise I would stick with alternative B, again, mindful that we are dealing with a skittish market situation and yet acknowledging the fact that a sense around this table is that there are risks to growth, that we are making progress on inflation, and yet there is no convincing evidence that we have completely turned the corner on the latter front. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Thank you, Mr. Chairman. It’s clear that the markets are very skittish. I haven’t heard anyone suggesting that we should be changing the fed funds rate, and I believe we should keep it steady. So what is important now is what we say rather than the federal funds rate. I think that the market is looking to us for leadership, but we have to define exactly what that means in a difficult market situation. I start by saying that we need to view the current market situation not as unique but as a particular example of a class of events. Each one has unique characteristics, but this is part of a not-uncommon thing that happens. It happens every now and then.

So what should our response rule be to events like this, not how should we respond to this particular case? I think there are two things that we need to do, given what we know at the moment, which obviously may change. What we know at the moment is, in the current situation, we ought not to give any hint that we are trying to suggest a policy change at our next meeting because I don’t think we have enough information to say that such a hint would be appropriate. Second, we want to make clear to the markets our readiness to respond to the situation should the environment change so that response by us would be helpful. Now, if we were to hint or if the markets were to view what we say as hinting, we could produce a positive market outcome this afternoon. I don’t doubt that. But then what? Where do we go from there? Would we, having given such a hint inadvertently or on purpose, want to actually carry through at our next meeting? That will depend on what we know at the next meeting, but in the meantime we would have created a market dynamic that would not be at all helpful. Reducing the fed funds rate 25 basis points at the next meeting or the one after that is not going to fix the subprime market. That market is changing permanently from a situation of really very poor underwriting, and the market will fix it in due time and sort it out.

I favor basically alternative B and the language there, but I am concerned about paragraph 4, that the market could interpret “although the downside risks to growth have increased somewhat” as our effort to give a hint that we see a cut in the rate ahead. So I would like to suggest a little different way of doing that. If you look in paragraph 2 at the sentence that begins with “nevertheless,” I would insert a sentence immediately ahead of that which says, “Consequently, the downside risks to growth have increased somewhat.” That follows the discussion of the situation in the market, credit conditions, and so forth. Then I would leave the last paragraph the same as it was last time. The point of doing that is to make clear that the downside risks to growth have increased somewhat, but nevertheless, the economy seems likely to continue to expand at a moderate pace. That was what I would suggest we do so that we do not inadvertently give a hint. We are aware that the markets are upset. We are making that very clear, but there is no intent to give a hint of policy action in our minds at our next meeting. Thank you.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Well, I guess the thing that strikes me first about the current situation is that the incoming news on core inflation has been promising. At least as far as I’m concerned, the inflation outlook is satisfactory. So that, in and of itself, suggests no change in policy. Now, if we append to that the financial market turmoil and the adjustment that is under way there, that does raise the risk to real growth. I think we have pretty well acknowledged that in this discussion. But in my view, that shouldn't prompt a change in the federal funds rate target at this meeting for the reasons I cited earlier having to do with the substantial uncertainties associated with all of this and, of course, I would be lax if I didn't mention the resilience of the underlying economy that has been demonstrated through the period of the great moderation. I do think it's important, though, that we use the language to make sure that the public is aware that we are aware of what is going on here. Alternative B, as drafted, largely does that. I don't think we should feel constrained at this point, as we sometimes do, to try to make the changes to the language as few and far between as possible. I'm pretty comfortable with alternative B as drafted. In fact, I might be prepared to go even a little further than B, something closer to a balanced risk statement, but I don't feel strongly enough about it to insist on that, even if I could. [Laughter]

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. I think we have a couple of issues in front of us today. First, do we react to the recent inflation numbers? I have been pleased by the recent reports, as I said, coming in better than expected, but there seems to be a substantial chance that the improvement we have seen is temporary and that we will get some higher figures later this year. Moreover, inflation expectations remain above where I'd like them to be, so I don't think we should relax our characterization of inflation in this statement. A second question we face is how to react to the recent turmoil in financial markets. I think we need to be careful to maintain our focus on the implications of market developments for the anticipated paths of inflation and real spending. At this point, I don't see those implications being substantial enough to warrant a policy response on our part or a change in our sense of the likely near-term policy path, though obviously this assessment may change as events unfold. Absent evidence of such implications, our financial stability responsibilities can be met quite adequately through the automatic supply of reserves under the Desk's operating procedures for targeting the overnight federal funds rate or through the supply of reserves to solvent institutions at the discount window. Unfortunately, the recent behavior of the fed funds futures market and recent financial press commentary suggest that some market participants, perhaps thinking back to 1987 or 1998, believe that financial market turbulence per se will induce us to respond with interest rate cuts. Even if we did cut rates to counter financial market volatility, financial market jitters might take some time to dissipate. We may be reluctant to undo such rate cuts in the meantime, and we would run the risk that policy then becomes too easy and we get behind the curve. My main concern is the risk that our communication today might mislead markets into thinking that we may cut rates in response to asset-price volatility per se, absent any expectation of sustained effects on the real economy or inflation. Accordingly, I believe the statement language should acknowledge the recent developments as in the second part of alternative B but not go any further. I'm concerned about paragraph 4 and adding the passage about downside risks to growth increasing. I'm concerned that it may go a bit too far in that direction. I think that the minutes should acknowledge the problems in subprime and private equity markets, and I also think the minutes should educate financial markets that the mitigation of volatility in asset prices is not an FOMC objective. Thank you.

CHAIRMAN BERNANKE. Thank you. President Moskow.

MR. MOSKOW. I didn't know I raised my hand, but I'll go anyway. [Laughter] I certainly don't want to recommend a change in the fed funds target at this point, Mr. Chairman, so I agree with alternative B in terms of the fed funds rate portion. I do want to go on record, since this is my last meeting, as saying that I'm not agreeing with alternative B because I'm comfortable with a 2 percent quantitative guideline for inflation. But I am, on balance, comfortable with alternative B. I am concerned about inflation. I think the improvement that we see may be transitory, as I mentioned. As President Stern mentioned in his earlier comments, unit labor costs will likely be increasing, and I think that, although the forecast on inflation looks promising, there could be significant risks that it might go higher. In terms of the developments in the financial markets, I think we have all talked about them extensively. There is nothing more to be said there. At this point, it is a period of watchful waiting. I would agree with President Lacker, with his comment about paragraph 4 of taking out the phrase that the downside risks to growth have increased somewhat. I would prefer to see it in the minutes rather than in the statement, and I would prefer to have paragraph 4 exactly as we had it at the last meeting.

CHAIRMAN BERNANKE. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. As I said earlier, I do think that the risks to the outlook for economic growth have increased while the risks to the outlook for inflation have moderated but are still to the upside. So I found the suggestion on page 25 of the Bluebook that we might want to mix and match the alternative A and B language appealing, but I did think that changing our statement in that way could convey a greater shift in our risk assessment than I believe is warranted today. So I think the revised version of alternative B makes the modest but important adjustment of acknowledging the recent change in credit conditions in the rationale section, and it signals the greater downside risks to growth in the risk assessment section. So I support our alternative B—that is, no change in the fed funds rate today and the language that is in the revised version. Thank you.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I think the inflation news has continued to be encouraging, but the risks remain on the upside. With respect to growth, the prospects have worsened, and I think there is greater downside risk for the reasons that we have discussed. I think the market response to these events is not inappropriate. They perceive a greater likelihood that we will need to cut the fed funds rate sooner and more deeply than seemed likely only a few weeks ago, and I think we should essentially try to leave those expectations in place today to indicate that we intend not to respond to asset prices or to the problems of particular dealers or financial institutions directly but to assess the economic consequences of the turmoil.

So the question is, What is the right language to do that? The alternative B language that is proposed is trying to achieve exactly what I think is appropriate. So I agree with the goal of alternative B. I'm simply concerned about some of the actual language that is proposed. Particularly I worry about the language in paragraph 4. When you say "although the downside risks to growth have increased somewhat, the Committee's predominant policy concern remains the risk that inflation will fail to moderate," that's like saying—perhaps because I respond so strongly to the word "predominant"—that, yes, we see greater downside risk, but we don't care; we remain totally focused on inflation. [Laughter] That bothers me. That's how it comes across to me. I don't think the intention is to make it that way.

So I would make two proposals to soften it. I think what we need to do is dial it down, but I do think that inflation risk remains to the upside. I would second two suggestions that have already been made. I would second President Fisher's suggestion that we remove the word "predominant" from paragraph 4. We might say, "The Committee remains concerned about the risk that inflation will fail to moderate as expected." Now, I do think the downside risk has increased on the growth side. I'm not sure it is actually necessary to say so explicitly, and I think dialing down paragraph 4 by simply removing “predominant,” along with the additional language that is proposed in line 2, might be sufficient. But I think that we actually do agree that downside risks have increased. If we want to express that, I would endorse President Poole’s suggestion that we move the language about downside risks to paragraph 2, saying something after “for some households and businesses, and the housing correction is ongoing.” We could then say, “Although the downside risks to growth have increased somewhat, nevertheless the economy seems likely to continue to expand at a moderate pace.” So we would get it in there. Basically we would say that we see it, but nevertheless we think most likely the economy will grow at a moderate pace. If financial turbulence diminishes and markets stabilize, not having downside risks to growth in paragraph 4 and continuing to express some asymmetric bias, some worry about inflation, we’ll be comfortable living with that going forward, and it is a good summary of where we are. So those are my suggestions.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Mr. Chairman, a couple of things. First, I am satisfied with the current policy. I think that for the moment our concern should still be on inflation, and I think our policy is designed to address that. In saying that, I also recognize—from my own observations and from what I’ve heard here today—that more downside risks are emerging and that we have brought the risks more in balance, I guess is the way to say it. Complicating that, of course, are the tighter credit conditions. I think they are probably transitory, but we won’t know that for a while yet—maybe by the next meeting. That leads me to conclude that I am comfortable with alternative B and its language because I think it recognizes this dynamic and puts it out there for the public. So I would stick with what we have in alternative B and then see how we develop between now and the next meeting. Thank you.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. I am certainly comfortable with maintaining the fed funds rate where it is, so I'm supportive of that. I think the real key here is language. What are we trying to convey to the markets? How far can we go, acknowledging what many people share—a sense of some increased risk—without creating another set of concerns in the marketplace? So the language is the tricky piece here. I've waffled a bit in my feelings about this. I'm inclined to be about where I think Bill Poole and Janet Yellen are—moving the downside risks into paragraph 2 as opposed to putting them in the assessment of risk. I would be supportive of that tone. Also, in response to some of Jeff's comments in his earlier memo on this, I actually prefer the language of repricing of risk rather than of tightening credit conditions simply because it emphasizes that this is partly a relative price adjustment that is going on. But I don't want to take a strong stand on that.

Only one other word concerns me, and I'd like to raise the issue here. In paragraph 3, which nobody has talked about yet, in the first sentence, "readings on core inflation have been relatively subdued in recent months" is a change in the language from our previous statement, which says, "improved modestly recent months." I worry a little about the word "subdued" because I think it becomes very close to making some kind of normative judgment about the level of inflation that we are happy with. I'm uncomfortable about that particular change in the language because it, again, might imply some normative statement without the Committee's agreeing on what we view as being subdued or not. So I'd like to suggest that we change that back to what it was before because, if we want to convey stability and some continuity here, there are places to change, there are places not to change, and I would rather change fewer words than more words going forward. That would be the only additional suggestion I would make. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lockhart.

MR. LOCKHART. Thank you, Mr. Chairman. I, too, feel that we should hold the rate, so I am concerned principally with the way the statement plays to the various audiences, particularly the market. The posture we should take is to acknowledge, while not reacting prematurely to, the turbulence in the financial markets and the subdued or the improved inflation numbers, and we should make an effort to maintain some flexibility. So I am a bit torn on paragraph 4 between President Poole's suggestion, which I have some sympathy for, and the concern that paragraph 4 will come across as ritualistic repetition of what we've said every month for several months and, therefore, will convey a sense that we're not paying attention to what's going on in the market. So I come out ambivalent on that. I can support President Poole's suggestion, but on balance I guess I like the statement in alternative B as it is.

CHAIRMAN BERNANKE. Thank you. President Rosengren.

MR. ROSENGREN. I support leaving the target for the fed funds rate at 5¼ percent. However, the news since the last meeting would seem to be more elevated downside risk to economic growth. This elevated risk reflects the baseline growth for real GDP as 2 percent (a considerable reduction from the previous Greenbook), greater uncertainty about the evolution of the housing market, and concern about the fallout from financial market disruptions. Given the greater downside risk, I would prefer language in the assessment of risk paragraph from alternative A, though I do like the modification to alternative B that was made, and I am worried about an interpretation of a Fed put for financial markets. So although I'd prefer the risk assessment in alternative A, which more accurately reflects my assessment of risks, I could certainly accept removing the word “predominant.” That would be my second choice. My third choice would be to bow to those who have a better understanding of nuanced language, since that is certainly not my expertise, though I hope I will develop it over the years, and I could live with the alternative B language as my third choice.

CHAIRMAN BERNANKE. Okay. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Like the others, I think keeping the federal funds rate where it is is the right thing to do. We need, as others have said, to watch the situation carefully and see how it evolves. I think we’re trying to do two things with this statement, as others have remarked. One is to make people aware that we’re aware that a major market event has occurred and to say that we’re looking at it and trying to assess its implications for the outlook but that it hasn’t really—not yet, anyhow—caused a major change in our fundamental assessment of where the economy is going. The second thing we are trying to do is make sure that we have a flexible platform we can move from over the next couple of meetings or even, should it become necessary, in the intermeeting period. So one can see this going in lots of different directions—the markets getting much more turbulent with implications for the outlook and we need to move in the intermeeting period or things settling down and we go back to inflation as the predominant risk. The incoming data on demand and production remain consistent with the central forecast. As I and some others noted, we could end up coming out of this and easing policy somewhere down the road, but not right away.

I thought the language of alternative B did both of those things. It acknowledged the situation. It reinforced the sense that moderate growth going forward was where we thought things were going because we added the “supported by solid growth in employment and incomes and a robust global economy.” So we have some rationale for that, which we didn’t have before.

I also thought that paragraph 4 was a really accurate reading. I was actually a little surprised through the go-round just how, almost universally, people said that the downside risks to output have increased but that they were still most concerned about inflation. So I thought that paragraph 4 turned out to be presciently—on the part of the Chairman, Brian, or whoever drafted it—a really accurate view of where the Committee was. My concern about moving the first piece of that into paragraph 2 is that then we have one risk in paragraph 2. We haven't done that before, right? The risks to output and to inflation have all been talked about in paragraph 4. Another risk is in paragraph 4, the risk to inflation, and that is an asymmetry of how we discuss risks. It was intended to soften the risk, but I think it strikes me as creating a precedent that in the future will be hard to live with, when some risks are in some paragraphs and other risks are in other paragraphs. Another thing we could do is move the inflation risk into paragraph 3 and not come down one way or another. But I think the Committee wants to come down on the inflation side—in terms of predominant risk or main risk—and the Committee isn't quite ready to go to balance. So it seems to me that paragraph 4, as written, really captured the center of gravity of the Committee. So I am in favor of that.

One word on the moral hazard and the concern about being seen as reacting: I am not worried about it. I think we have kept our eye, through the past twenty years, on the macro environment. We have adjusted policy to stabilize the economy, to bring inflation down, and we were pretty darn successful in all of that. Asset prices go up, and asset prices go down. Anybody who bought a lot of high-tech stock, betting on the Greenspan put, is still waiting to recover their money. [Laughter] I don't think it ever existed. I really don't care what people say; I care about what we do, and we just need to keep our eye on those macro implications. Now, as I said in my presentation, I think the connection between the financial markets and the macroeconomy is pretty complicated and runs through confidence and other things, too. But I’m not really worried about a moral hazard from acting. Should markets continue to be turbulent and we see that turbulence in the future—I agree with the Vice Chairman that we have to be forward looking in this—such turbulence has the potential for adversely affecting the economy. I think we should go ahead and act. I think we basically did the right thing in ’87 and ’98, and I don’t think we need to apologize for it. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Before diving into alternative B, I’d say part of the reason that we are trying on different clothes around the language in alternative B is that we have an odd juxtaposition of growth and inflation at this time. That is because the growth risks seem to be driven largely by a financial market situation that we still don’t totally understand, and we even have some disagreement about how quickly we will come to that understanding. So unlike our typical juxtapositions, when we have intermediate concerns about inflation and about growth, here it strikes me that the differences are in timing and in magnitude—that is, if the downside risk from the financial markets happens soon and we’re in the middle of it and we just don’t see it yet, boy, we might know it soon and that could have very ugly outcomes. I think there are differences here. I also think there are differences in our power. Our power over inflation is pretty darn good, and we can exercise that kind of judgment. Our power over getting in the middle of these markets by moving rates ¼ percentage point or moving our language is harder for me to decipher. That’s why I think the suggestions about the language of alternative B are good ones, and they are hard for us to all wrestle with.

The reason I come down for alternative B as written is that it strikes me that we have two goals. One is to be as clear as we can be with the markets, notwithstanding their expectations of what we see, and I think alternative B does that. The second goal is trying to buy ourselves some insurance and some flexibility. I worry that, if we were to drop "predominant," which has become part and parcel of their view of where we are, it might turn out that these markets are benign and this isn't the storm I talked about just a moment ago, and it will be hard to go back to that word. I don't know how we go back to "predominant" in September or in the meeting after that if we have dropped it. So in some ways I think the question is, as in the Poole approach, Do you drop "predominant" and move the downside risks to paragraph 2, and is that roughly equivalent to alternative B as is? The reason I do not think so is that alternative B as is provides us with more flexibility to end up dropping the downside risks if that eventuality comes to pass. So for the reasons that Governor Kohn has given, I think we probably have the right construct here in alternative B. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you very much. I also support keeping the fed funds rate unchanged, and I very much agree with the way that Governor Kohn was thinking about what we're trying to achieve. So let me just describe why I think that alternative B as is largely achieves that. The key to my thinking about the decision on changing the statement is, first, whether something has materially changed so that the markets will realize that, when we change the statement, we do so because something has actually happened and, second, whether it gives us the flexibility going forward to make another change if new information comes in. So, for example, in paragraph 2, acknowledging the volatility and talking about credit conditions, about the housing market, and then about the offsetting factors of employment, growth in income, and global demand—all those things are relevant. The new things—the financial markets and credit conditions—have been there a bit but are now more important than they were before. So we're acknowledging things that actually have happened in the intermeeting period. I also like that it gives a bit more color about what's going on and how we're thinking about things, and each piece is one that we can easily leave, add to, or take back, and that is very valuable. So I like the formulation of paragraph 2 because it both acknowledges new information that has come in and does so not in a way that suggests fear or excess concern but just sort of acknowledges various factors, particularly the financial conditions in the context of others on the upside. The balance is, I think, very nice.

On paragraph 3, I agree with President Plosser that it is not clear to me that we had new information so that we would want to change the characterization. I see nothing wrong with the characterization that we have there. I am not as concerned as President Plosser is that it makes more of a value judgment. But my question is just why we have made the change. I am happy with either way, but using my criterion that if no information is new why change, I am not quite sure why we changed it. I think it is fine either way.

On paragraph 4, I think it is very important to take a step toward balance without going all the way toward balance because it is much too early to tell, as many people have said. Putting the downside risks there makes a lot of sense because of the tradition of the structure. Again, I don't see any reason to change the overall formulation or the overall structure at this point, particularly when the markets are jittery. I don't think we should be going about a sort of structural change in the statement. Even if ultimately we might want to think about it, I do not think this would be the time to do it. Also, I like that it is very easy to put on and take off, so that if growth does come back up, we can easily remove the language. If growth goes down, we can move toward balance of risk very easily there if we want to, and as Governor Warsh said, if we drop "predominant," we cannot get that back. I feel that we are not at a stage—or at least from the discussion around the table and from where I am—where we should do that. Also, I think you would have a very strong reaction in the markets. If the markets saw that we both acknowledged the downside risk and took out "predominant" or even just took out the word "predominant," that would indicate a much stronger risk and be a much stronger signal that we are going to move more quickly. I do think that this statement as is will lead to a slight increase in expectations of a cut a little earlier, but that's perfectly acceptable because I can't see any better way to get the balance right. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Mishkin.

MR. MISHKIN. Thank you, Mr. Chairman. Obviously I agree that we should not have a change in the federal funds rate. So I want to talk about the statement. When I think about the statement that I would write, a key thing from my viewpoint is just to ask what the inflation objective is because it really affects the statement in a major way. I believe that a 2 percent goal is reasonable for reasons that I have discussed before. In that context, inflation has moderated, and so I would have difficulty saying that we are concerned that it has not moderated when I think, in fact, it has. But I do have to say that I think we want to stick with alternative B as it is written here for two reasons. The first reason is that I am actually in a conflicting situation because it is not clear whether I should think about writing a statement that's appropriate for Governor Mishkin or a statement that's appropriate for the Committee as a whole. We are going to have to deal with this challenge. When I read the projections, it's clear to me that I'm on the high side, that my 2 percent is higher than the median, which is around 1¾ or 1.8. I would not have difficulty accepting an inflation objective of 1.8 as long as the Committee came to a consensus. I think that the issue of writing the statement is much more difficult when we don't have consensus of the Committee. It is creating a problem for me in terms of thinking about how to get involved in the internal deliberation on what the statement should be, and that will be important in the future. I do not think that now is the time to deal with that. So one of the issues then is let's deal with that at some point in the future.

The second reason is the issue of what is going on in terms of the financial markets and what kind of impression we give outside. I agree with Governor Kohn that we have not been operating under a Greenspan put or a Fed put. It is very clear to me that we have not been doing so, except that I think an impression has been created, and I would like to mention that I am a little less sanguine about what was done in the past. I think that one mistake was made, perhaps because I'm looking at it ex post. When the Fed lowered interest rates 75 basis points in the LTCM episode, it was a brilliant stroke. It was exactly the right thing to do. But when you think about an operation like that, which was basically to restore confidence to the markets and was very much like a classic lender-of-last-resort operation, we know that you want to put in liquidity; but when the crisis is over, you want to take it out. At that time, I was quite critical that the Fed did not then remove the 75 basis point decline, and I think it created an impression—I don't know about a Greenspan put, but there was some element of that—and it is very hard to dissipate that impression. Maybe it is true that people said we weren't trying to do that, but we did create some kind of impression along those lines. So I think the issue of perception still is important. In that context, it is very important that we not give the impression that we are responding to financial markets now because the discussion here has been that we are very concerned that this might be a problem in the future but right now it is not affecting our forecast in a major way. That's exactly what we have to communicate to the public and the markets; and in that context, changing the statement too much in moving toward balance will create problems along those lines.

If I were not worrying about these issues, I would take the word "predominant" out of the statement. In fact, I might even take out the issue that I'm worried about, that we say inflation has not moderated. But given the current situation, I think it is best that we stick with "predominant." That we mention downside risks to growth and then the "predominant" side in terms of inflation does create an element of balance. Thus I think there is a potential issue that we have to worry about in future statements and that we will have to grapple with. I hope that this Committee could come to a consensus on what our inflation objective is so that we can have a more coherent discussion of these issues; however, I do not think this is the time to pursue that. So I support alternative B as written. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. About classic lender-of-last-resort operations, we asked people at the Open Market Desk how much additional reserves it takes to lower the federal funds rate ¼ percentage point. It is on the order of a couple of ten million—so 75 basis points added maybe $100, maybe $150 million in that instance. You know, I'd venture that that was probably trivial in terms of adding liquidity to the market after LTCM. The real effect it had was altering the then-current and expected path of the real overnight federal funds rate. As you know, Rick, the classic lender-of-last-resort option had to do with the 1900s and preventing interest rates from spiking above current rates, not from adding reserves or driving down interest rates. So I think it is a confusion to link things like what we did in '87 or '98 to the classic lender-of-last-resort operation.

MR. MISHKIN. But there's always an issue about what we mean by the word "classic." What I'm thinking about here is that a lender-of-last-resort operation is really about restoring confidence. It can be done without actually putting any liquidity into the system. If you look at a successful lender-of-last-resort operation, just the announcement that you will be a backstop for the system has tremendous impact. Of course, this is one reason that what was done in '87—with Greenspan not actually sitting in the tub that morning but getting up early and announcing before the market opened that the Federal Reserve was going to be a backstop—was extremely important. I'm thinking of it in that context, which is that we wanted to provide information to the markets, which was that we were going to be there and that we were not going to be the Bank of Japan and allow something to spiral out of control. Clearly, it was basically taking out insurance, saying that the Fed will be there. Once you don't need insurance anymore, there's a really strong argument to take it away. So I'm not talking about this in terms of liquidity per se but what we are trying to do in terms of expectations. That episode was important for doing the right thing, which was critical to the way the financial markets recovered; but I think a problem was created when we didn't reverse it in the same way that, when you actually do a lender-of-last-resort operation, you put liquidity in and you take it out. That's the sense in which I mean putting lower interest rates in and then taking them out when the crisis is over.

CHAIRMAN BERNANKE. All right. Let me get us back to the statement. [Laughter] Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. Just quickly, I think we are actually all in a fairly similar place, not far apart in our basic diagnosis, and that's good, given the complexity of our decisions going forward in some sense. We want to soften slightly the asymmetry in our current statement to give us a bit more flexibility and to show some awareness of the change in the reality out there.

Quickly on the statement, first, I agree that, on the question of how we characterize and how we display some recognition of financial market developments, the reference to volatility itself may not capture it. Somebody suggested that we say something instead about going to "risk premium" or something more generally, and I think that might be slightly better—a small point. The second question is whether we should revert to June on the inflation readings in response, I think, to the right observation by President Plosser that this does convey more comfort with a level than the previous wording did. So I would be fine going back to June, but I could also live with this because it conveys a sense that the readings have been and continue to be reasonably favorable. So I would be fine with the way it is, but I could go back to the June language.

On the question about whether we refer explicitly to downside risks to growth, which we'll be doing for the first time—a sort of consequential act—and, if so, how we do it. I would have been fine leaving it implicit rather than introducing it explicitly. I think Don is right: If we're going to do it, unless we're going to change the structure of the statement significantly and put some risk assessment on growth in paragraph 2 and some risk assessment around inflation in paragraph 3, then we need to leave it in paragraph 4. So, again, on the risks to growth, I'm okay with putting that language in. I think it's consistent with the broad objectives. I guess my preference would have been to leave it implicit.

Finally, on "predominant," my own view is that we should not repeat "predominant" and that we would be better off simply stating that the Committee remains concerned about the risks or concerned that inflation will fail to moderate as expected. I don't think the arguments for sticking with "predominant" are that compelling. I don't think that taking it out constrains our options going forward. It is true that it's a shift in some broad sense, but I don't think we need to say so starkly now that we've looked at this set of risks—very different types of risk, some very fast moving, very uncertain, and some slower moving, probably manageable over time—and say that we weighed that balance and we think the latter risks continue to predominate. I think that's the substance of the argument we face. I think it would be better to slightly soften that further. Having said all of that, I can live with alternative B as drafted. [Laughter]

MR. MISHKIN. May I make a two-handed intervention?

CHAIRMAN BERNANKE. Governor Mishkin.

MR. MISHKIN. Could I ask a question of Brian? "Predominant" is a key word. So what do you think might be the response of the markets if we leave it in or take it out, in terms of two elements. One is the issue of how the markets would think about the future evolution of our policy. Two is how the media might read whether we are reacting to the distress in the financial markets.

MR. MADIGAN. Well, as I said earlier, it's a little hard to judge market reactions right now, given the flux in financial markets. That said, I do think that the introduction of "downside risks," as an explicit phrase in the statement will obviously not be overlooked by market participants, [laughter] and I think that they will see it as at least some slight shift in the Committee's body English. With regard to "predominant," that's just another step in the same direction—and I think maybe even a bigger shift.

MR. MISHKIN. Right.

MR. DUDLEY. I think it is a bigger shift. I think if the first is one unit, the second is maybe two units in terms of how far you go.

CHAIRMAN BERNANKE. President Moskow.

MR. MOSKOW. I just have another objection to taking out the word "predominant." I don't think the sentence makes any sense if you take it out. [Laughter] You have to put something in. You cannot say that it is our only problem.

CHAIRMAN BERNANKE. Well, right. You really have to rewrite the sentence. Let me try to evaluate this with your guidance. [Laughter] So I agree with Brian that this is one of the toughest ones to write and to assess the response. If you read the commentary, expectations are all over the map, and so it is very difficult to know how this will be taken. I don't pretend to know. Let me start with something easy. I think that President Plosser is absolutely right. There is no reason to change paragraph 3 without a reason. So unless anyone has concerns, I'd like to change paragraph 3 back to the June language. Okay. That's the first thing.

Regarding the tougher question—and President Yellen, President Poole, and others have raised an interesting possibility—again, without much confidence I am going to resist it for the following reasons. The first reason is mostly that it is complicated, [laughter] and it moves things around in ways that will make it even harder for the market to understand what we're trying to do. Another reason is that the statement "although the downside risks to growth have increased somewhat," if we follow your advice and put it after the new sentence in paragraph 2, will essentially say that the financial markets are the reason that the downside risks have increased, whereas there are other factors—the housing market, automobile sales, and things of that sort—that could be viewed as increasing the downside risks. So I guess that's my recommendation. On "predominant," I think the word has been neutralized to a significant extent by its use. You may recall that we used the phrase "predominant policy concern," and we changed the second sentence, and the market based on that decided that we had gone all the way to balance. My concern is that, if we get rid of "predominant" and if we mention the downside risks to growth anywhere, that will be viewed as having gone mostly to balance, and I don't think that's where we are right now as a Committee.

I have one thought, which may have come too late in the day here. This is going back to paragraph 2, "financial markets have been volatile in recent weeks." President Geithner raised the idea of changing that to something about risk. One small concern I have, and it would have been good had we put this in earlier, is that the phrase refers to something going on in the markets per se and not an effect of the markets on the economy, which heightens some of the put risk a little. An alternative would be to replace that first phrase with something like "investors have demanded greater compensation for risk." That would be a market development that evidently affects yields and borrowing costs. I see some nodding. I see some frowning. So I'm not sure.

MR. MISHKIN. Could you clarify? Are you saying that you would then get rid of "credit conditions have become tighter"?

CHAIRMAN BERNANKE. No. "Investors have demanded greater compensation for risk, credit conditions have become tighter for some households and businesses." All right. No excitement.

MR. LACKER. It is not clear whether probability distributions over the fundamentals have shifted or whether the probability distribution over marginal utility has shifted. Do you see what I mean?

CHAIRMAN BERNANKE. No. [Laughter]

MR. LACKER. It is not clear whether their attitudes to a given risk have changed or their assessments of the magnitude of the risks have changed.

CHAIRMAN BERNANKE. Oh, I see what you're saying. Well, actually the way I phrased it was intentionally not to say that risks have increased but rather to say that the price of risk has increased.

MR. LACKER. But that says one of them. That says the latter.

CHAIRMAN BERNANKE. But that's what I want it to say.

MR. LACKER. But that's not clear. It is not clear that it isn't just a widening of the probability distribution over the relevant outcomes.

CHAIRMAN BERNANKE. Okay. I don't see any snowball. [Laughter]

VICE CHAIRMAN GEITHNER. Don't give up yet. "Risk premiums in financial markets have increased, credit conditions have tightened for some households"—it is true that you don't really know what the source of the increase in risk premiums is, but it is true that risk premiums have increased. Volatility itself is not particularly interesting from a policy perspective, and as many people have said, we're not here to damp volatility. The considerations relevant to the macroeconomy and to financial market stability in some sense are what happened—and that's a different way of saying it.

MR. LACKER. No, it encompasses both of what I was referring to, and so that would be a way to do it.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. I would agree with that. Now, that doesn't say that pricing has changed. Let me give you an example. Kimberly-Clark last week went to market on $2 billion in debt. They couldn't move it unless they had a change-of-control provision. No price impact. So it is part of the risk premiums, but we're not seeing pricing per se. I like the wording that President Geithner has suggested.

CHAIRMAN BERNANKE. Governor Kroszner. I'm sorry. You were next.

MR. KROSZNER. Yes, in principle I think that is a good way to characterize what's going on. But going back to the criteria that I was using, in many cases the risk premiums have simply moved close to historical levels from record lows. So if they stay at historical averages over time, that's not necessarily something that's wrong or problematic. It may be very difficult to take that phrase away if risk premiums stay where they are in at least some of the markets. I don't think that's necessarily a bad thing, and I've heard a number of people around the table suggest that. In certain markets, they have been above historical averages, but in many markets they have simply moved to the historical average, and I am just a bit concerned about being able to take that away.

CHAIRMAN BERNANKE. Well, just to say "have increased" and then have the next phrase say "credit conditions have become tighter" also makes no value judgment on whether they're appropriate.

MR. KOHN. Mr. Chairman.

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

MR. KOHN. Yes, I do. I see why you want to take out "volatile," and I agree with that. Unlike President Lacker, I think it is important to keep credit conditions in there because it's more than just price. So I was a little concerned that saying "risk premiums have increased and credit conditions have become tighter" puts it all on price. Suppose we didn't have the phrase in red. We just had "owing to developments in financial markets, credit conditions have become tighter," or "reflecting recent developments in financial markets, credit conditions have become tighter."

VICE CHAIRMAN GEITHNER. I am okay with that.

MR. KOHN. I prefer "risk premiums."

MR. MOSKOW. You could just go back to the original language in the Bluebook. It says essentially the same thing. Just change the sentence around.

CHAIRMAN BERNANKE. I think that is a good idea. Credit conditions are becoming tighter. We saw that in the bank surveys before any of this happened.

MR. MOSKOW. That is in the Bluebook.

CHAIRMAN BERNANKE. I understand, but I think that some acknowledgement of the effects of financial market developments in the recent weeks on the economy is needed just to make sure that people understand that we're awake.

MR. KOHN. So the proposed language is "risk premiums" and "financial markets"?

CHAIRMAN BERNANKE. "Have increased, credit conditions have become tighter." And the housing.

MR. MISHKIN. Fine with me.

MR. MADIGAN. I just want to point out, Mr. Chairman, that those two clauses seem to overlap to a considerable degree, "tighter risk premiums" and "tighter credit conditions." It's not clear to me precisely what distinction we're trying to draw there.

MR. MISHKIN. Well, "credit conditions" is more general because it can encompass both price and nonprice.

MR. MADIGAN. So it raises a question in my mind as to why the first clause is necessary.

CHAIRMAN BERNANKE. Well, think of it as being market-traded assets, and "credit conditions" sounds like mortgages, retail type of credit provision. President Hoenig.

MR. HOENIG. I'm okay if you want to put "premium," the Vice Chairman's language, in there. But I think that the markets have become more volatile, and nothing is wrong with saying that, and credit conditions have tightened, which is a fact, and people are thinking about the volatility of the markets. So that is on their minds. We're acknowledging it, as you said, and so I was comfortable with the language.

CHAIRMAN BERNANKE. Okay. Let me just get a sense around the table, if I could. I think President Hoenig makes the point that volatility in financial markets could be viewed as having an effect on the economy through uncertainty and those sorts of factors. One option is "financial markets have been volatile in recent weeks." The second option is "risk premiums in financial markets have increased." Who wants "volatility"? [Laughter] I see five. Who wants to make the change?

MR. KOHN. I guess I would.

CHAIRMAN BERNANKE. Oh, great. [Laughter] All right.

MR. MISHKIN. We flip a coin?

MR. KOHN. You have the deciding vote.

CHAIRMAN BERNANKE. Okay.

MR. LACKER. One factor for me is that "volatility" is a very broad term, and "risk premiums" refers to a narrow set of markets, and this way shifts the focus off equity markets.

CHAIRMAN BERNANKE. Okay. I apologize profusely for bringing this up. Why don't we just leave it? [Laughter] So after all the discussion, my proposal is to follow President Plosser and to replace paragraph 3 with the June version. Please call the roll.

MS. DANKER. I'll read the directive wording from the Bluebook and the balance of risk assessment from Brian's handout.

"The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 5¼ percent.

"Although the downside risks to growth have increased somewhat, the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected. Future policy adjustments will depend on the outlook for both inflation and economic growth, as implied by incoming information."

Chairman Bernanke	Yes
Vice Chairman Geithner	Yes
President Hoenig	Yes
Governor Kohn	Yes
Governor Kroszner	Yes
Governor Mishkin	Yes
President Moskow	Yes
President Poole	Yes

President Rosengren	Yes
Governor Warsh	Yes

CHAIRMAN BERNANKE. The next meeting is September 18. Let me remind you that we will be discussing briefly on September 18 and in October the communication issues. Let me ask you, please, to be reticent about discussing this; please be nontransparent about transparency [laughter] in our discussions so that we don't front-run ourselves too much. I would appreciate that. I'm going to adjourn formally, but if you can tolerate a few extra minutes at the table, we would like to give Laricke a chance just to give us a very quick update on congressional matters, and then we will move upstairs for lunch for President Moskow. The meeting is adjourned.

END OF MEETING