Meeting of the Federal Open Market Committee
August 8, 2006

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., starting at 8:30 a.m. on Tuesday, August 8, 2006. Those present were the following:

Mr. Bernanke, Chairman
Mr. Geithner, Vice Chairman
Ms. Bies
Mr. Guynn
Mr. Kohn
Mr. Kroszner
Mr. Lacker
Ms. Pianalto
Mr. Warsh
Ms. Yellen

Mr. Hoenig, Ms. Minehan, Messrs. Moskow and Poole, Alternate Members of the Federal Open Market Committee

Messrs. Fisher, Plosser, and Stern, Presidents of the Federal Reserve Banks of Dallas, Philadelphia, and Minneapolis, respectively

Mr. Reinhart, Secretary and Economist
Ms. Smith, Assistant Secretary
Mr. Skidmore, Assistant Secretary
Mr. Alvarez, General Counsel
Ms. Johnson, Economist
Mr. Stockton, Economist

Messrs. Connors, Eisenbeis, Kamin, Madigan, Sniderman, Struckmeyer, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Mr. English and Ms. Liang, Associate Directors, Divisions of Monetary Affairs and Research and Statistics, respectively, Board of Governors

Mr. Reifschneider, Deputy Associate Director, Division of Research and Statistics, Board of Governors

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

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

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

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

Ms. Beechey, Economist, Division of Monetary Affairs, Board of Governors

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

Mr. Barron, First Vice President, Federal Reserve Bank of Atlanta

Messrs. Fuhrer and Rosenblum, Executive Vice Presidents, Federal Reserve Banks of Boston and Dallas, respectively

Mr. Hakkio, Ms. Mester, Messrs. Rasche and Williams, Senior Vice Presidents, Federal Reserve Banks of Kansas City, Philadelphia, St. Louis, and San Francisco, respectively

Messrs. Peach and Krane, and Ms. Weir, Vice Presidents, Federal Reserve Banks of New York, Chicago, and New York, respectively

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

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

Transcript of the Federal Open Market Committee Meeting on August 8, 2006

CHAIRMAN BERNANKE. I'd like to welcome President Plosser to the table.

MR. PLOSSER. Thank you very much.

CHAIRMAN BERNANKE. Charlie, welcome aboard. Let's start with the Desk operations. Mr. Kos.

MR. KOS.[1] Thank you, Mr. Chairman. At your last meeting I focused on the higher level of volatility that was concentrated in specific and fairly narrow asset classes, particularly emerging market currencies and equities. In the intermeeting period, volatility declined in those asset classes while staying low in a broader set of asset markets such as fixed income and the major currency pairs. Meanwhile, the market's focus turned even more acutely to the prospect that the Committee would take a pass in raising rates at this meeting, even as many other central banks were tightening policy further.

On the first page of the handout, the top panel graphs the historical volatility of the MSCI equity indexes for the United States, Europe, Japan, and emerging markets. These volatilities rose after your May meeting and peaked around the time of your June meeting but have fallen back in recent weeks. Emerging market equity volatilities (the blue line) declined sharply from more than 35 percent to below 20 percent. On balance, the value of emerging market equities and currencies rebounded somewhat after the selloff in May and June. The middle left panel graphs the VIX index. Although a tad higher than the very low levels observed earlier this year, the VIX is well off its highs and below its long-term historical average. Similarly, the middle right panel graphs an index of volatility in Treasury yields. This index has been very tame for several quarters despite the widely reported uncertainty about the future direction of monetary policy. Rounding out this benign picture is the currency market, as reflected in the bottom panels, where volatility briefly ticked up in the spring but since then has quickly fallen to earlier levels.

Even though volatilities on balance trended lower since the last meeting, trading volumes—as measured by the primary electronic brokering services in fixed-income and currency markets—declined more than can be explained by the summer doldrums. Some market participants suggest that speculators reduced risk in May and early June and are now sitting on their hands. In that scenario, risk appetite is still ebbing even if that is not showing up in wider spreads or higher volatilities.

If investors and speculators are being more cautious, one reason for the caution might be related to the tightening of monetary conditions globally. The table on page 2 summarizes for a sample of central banks the net changes in their main policy

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

rates so far in 2006. Last Thursday the Bank of England surprised the market by increasing rates 25 basis points, while the European Central Bank ratified expectations by also tightening 25 basis points. Of particular note among central banks that have recently raised interest rates is the Bank of Japan, which on July 14 moved the target overnight call rate from 0 to 25 basis points, as shown in the bottom panel. The move had been well telegraphed. Nevertheless, the aggregate current account balance at the BOJ is still higher than required reserves of 5 trillion to 6 trillion yen. The main reason seems to be that Japan Post continues to hold high and variable balances, thus bumping up the aggregate.

While the backdrop globally is toward tighter monetary conditions, investors in the United States have been looking forward to a plateauing of short-term interest rates or even a decline over the medium term as housing and other indicators have weakened. The prospect of a pause in the tightening cycle reportedly helped support equity prices, shown in the top panel on page 3, which inched higher as this meeting approached. Corporate profits on the S&P 500 for Q2 have risen 19 percent, higher than analysts' forecasts. In fact, profits have risen by double digits seventeen quarters in a row. With the prospect of a pause and strong profits, one might wonder why the price action in equities has been on the sloppy side. The most common answer is that the outlook that companies are providing is cautious, perhaps suggesting that the economy is softening more quickly than previously forecast. Continuing on that theme, the middle panel graphs the two-year and ten-year Treasury yields and the target fed funds rate. Two-year and ten-year Treasury yields are down about 30 basis points, to about 4.9 percent, and roughly 35 basis points below the funds rate. Such an inversion is common during an easing cycle but very rare during a tightening cycle. As shown in the bottom panel, breakeven rates have barely budged since the last FOMC meeting. The entire decline in nominal yields represents a fall in real rates. Taken at face value, this suggests that investors may see lower real returns ahead, perhaps reflecting a bearish view of the economy. However, that bearishness on the economy is not spilling over to an expectation that inflation will necessarily fall back.

The top panel on page 4 graphs the Libor fixing rate for three-month deposits (the thick red line) and three-, six-, and nine-month forward rate agreements. In recent days the nine-month forward traded through the cash rate, suggesting—if one takes this literally—that the markets are beginning to contemplate an easing of policy in early 2007. This pattern is similar but not identical to what we observed in 2000, as shown in the middle panel. After the Committee raised the funds rate in May 2000—in what turned out to be the last move in the cycle—forward rates began to decline even though the Committee continued with an asymmetric bias to tighten. By September the forward rates had pierced cash rates. Another similarity is seen with Eurodollar futures calendar spreads. The bottom left panel graphs the difference between the December 2007 and the December 2006 Eurodollar contracts. Late last year that spread turned negative, implying that market participants expected interest rates to be lower at the end of 2007 than at the end of 2006. After reversing somewhat, the spread turned sharply downward in recent months. The bottom right panel graphs the spread between the December 2001 and the December 2000 contracts from late 1999 through September 2000. The spread turned negative only with anecdotal reports of a sharp drop in orders around September, which was roughly three months after the last tightening.

Shifting gears, I want to mention briefly the transition on July 20 to the new PSR (payment system risk) policy. The first major P&I (principal and interest) date under the new rules was July 25. Fannie Mae had to fund $40 billion in MBS P&I payments (net of payments to itself), and the transition went very smoothly. One of the tools that GSEs developed to help fund their accounts on a timely basis on large P&I dates are term and overnight early returns of fed funds sales. Under these contracts, fed funds must be returned to them earlier than the end-of-day deadline associated with standard fed funds sales, usually between 9:30 a.m. and 11 a.m. Rates on overnight early-return fed funds have traded roughly 1 to 3 basis points below standard fed funds. Based on incomplete sampling, about 15 percent of the volume of brokered fed funds reported to the Desk and used to calculate the daily effective rate has been early returns. The Desk is collecting and monitoring early-return fed funds data from the major brokers to assess how this market develops and how early-return fed funds may affect the overall fed funds market.

There were no foreign operations in the period, and I will need a vote to approve domestic operations.

CHAIRMAN BERNANKE. Thank you. The transition to the new PSR policy is good news. Are there any questions for Mr. Kos? If not, we need a motion to approve operations. So moved, without objection. We turn now to the economic situation. Mr. Wilcox.

MR. WILCOX. Thank you, Mr. Chairman. Jack Brickhouse, the voice of the Chicago Cubs for more than thirty years, was more widely known for his knowledge of baseball than for his command of probability. When a Cub would step into the batter's box after an especially long string of hitless trips to the plate, Brickhouse would invariably declare, "He's due." Even we kids knew in our minds that Jack didn't have it quite right on the probability front, but in our hearts it was enough to keep us going. Some of you may remember that an employment report was released on the Friday after the June meeting, and that time, we pretty much nailed it. So I have to admit to having had a "Brickhouse moment" last Friday and wondering whether we were "due" this time for a real trainwreck. But for a second time in a row, fate smiled, as it so rarely seems to do on macro forecasters. So at the end of today's meeting, I'll be happy to pass the baton back to Dave Stockton but with a certain sense of guilt: He's *really* due. [Laughter]

In fact, as we reported to the Board yesterday, Friday's labor market report came in very much as expected. Private nonfarm payrolls increased an estimated 113,000 in July, virtually the same as the 100,000 we had been expecting, and the gains in each of the previous two months were revised up by a modest 20,000. The unemployment rate rounded up to 4.8 percent, but unless we receive additional evidence of a more-rapid slackening of conditions in the labor market, we're inclined to stick with our Greenbook trajectory for the unemployment rate as well. Overall, we made no material adjustments to our macro forecast in light of this news on the labor market. Indeed, I would argue that there was less news in the August Greenbook than met the eye. The quick summary of the August projection is that the pressures on resource utilization look roughly the same to us as they did at the time of the June Greenbook, whereas the outlook for inflation looks just a shade worse.

Turning first to the issue of resource utilization, the clearest indication of our thinking in this regard is that the unemployment rate in the August Greenbook never deviates more than 0.1 percentage point from our forecast in the June Greenbook. To put a very fine line on the matter, we nudged the path down ever so slightly over most of the forecast period, and that call still looks about right to us, even in the wake of Friday's report. Given an unrevised estimate of the NAIRU, the slightly lower level of the unemployment rate implies that the pressures on resource utilization are just a little greater in this Greenbook than they were in the last one.

At the same time, we have become a bit more pessimistic about the outlook for the growth of aggregate demand relative to potential over the next six quarters. This slightly greater pessimism derives from several considerations. Most notably, starts and especially permits for the construction of single-family homes came in below our expectations in June, and we responded by taking our projection for residential construction down over the entire projection period. In the June Greenbook, our projection ran above the simulated trajectory from our preferred model for starts, in recognition of the persistent upside errors that model had been making. Now, for what it's worth, our judgmental forecast happens to be in line with the simulation from that model that jumps off from the last quarter of data. Parenthetically, I might note that the simulations from that model did not revise greatly over the past six weeks. We still see the contraction in residential construction as moderate by historical standards but likely to be a little steeper than we anticipated in June. This time, we forecast that single-family starts will bottom out at an annual rate of 1.43 million units, bringing the overall decline from last summer's peak to 18 percent, still well shy of the declines that were registered in the early 1980s and early 1990s but starting to be in the same ballpark. We also took on board the growth implications of the further run-up in oil prices since the June meeting, the somewhat lower level of household wealth implied by the downward-revised trajectory for house prices, and the likelihood that greater inventory investment in the second quarter robbed a smidgen of growth from the future.

All that said, the adjustments to our forecast of resource utilization are pretty marginal. More eye-catching were our revisions to top-line GDP growth, which averaged 0.5 percentage point over the second half of this year and 0.4 percentage point next year. But here, of course, the changes were driven by the adjustments we made to the supply side of our projection. In its annual revision of the national income and product accounts, the BEA trimmed the average pace of growth of real GDP from 2003 through 2005 about 0.3 percentage point. Because our fundamental views of the pressures on resource utilization and the rate of inflation were unchanged by the NIPA revision, the simplest thing for us to do would have been to take potential GDP down by a like-sized amount, thereby keeping the GDP gap the same as before. As we often do, however, we made a further adjustment to potential in order to bring the output gap into line with the unemployment rate gap at the end of last year thereby eliminating a tension between those two "gap" variables that had become more distracting than informative. As for the forecast, in line with our usual practice, we overlaid the other factors that I discussed earlier with a 0.3 percentage point adjustment for the reduction in the growth of potential, on the theory that households and businesses anchor their spending plans around their longer-term prospects for income.

A central issue that we wrestled with in this forecast round was whether the slowdown in growth that we anticipate will materialize to the degree that we expect. The dimensions of that slowdown are significant. Looking ahead six quarters and behind by the same amount helps smooth through some of the quarter-to-quarter wiggles. We estimate that, over the past six quarters, real GDP growth *exceeded* potential growth, on average, about ¾ percentage point at an annual rate; we expect real GDP growth over the next six quarters to fall *short* of potential by roughly the same amount. One key factor driving this swing in our forecast is the combination of a waning boost to consumption from household net worth and the higher level of interest rates. The result is reflected in our forecast for the personal saving rate. Again using the same six-quarter window, fore and aft, over the past six quarters, the saving rate declined more than 2 percentage points; we expect that between now and the end of 2007 the smaller gains in wealth and higher interest rates will bring the saving rate back up to 2 percent. Another key factor, especially in the near term, is the slowdown in residential investment. After chipping only about ¼ percentage point from the growth of real GDP during the first half of this year, residential investment is expected to slice about ¾ percentage point from the growth of real GDP over the second half of this year. Next year, the drag from this sector should have diminished but not halted altogether. Finally, we think that the sum of public and private spending related to last year's hurricanes will top out sometime this year and will begin to drift down, accentuating the downdraft from the other factors weighing on demand. We have assumed that, within the aggregate of total hurricane spending, government spending and the replacement of destroyed equipment have been relatively front-loaded, whereas construction activity, we presume, is still ramping up.

Turning to inflation, the news is relatively slight but not of the welcome variety. As you know from the Greenbook, we marked up our projection for core PCE inflation over the second half of this year about ¼ percentage point and nudged the forecast for next year up a tenth. The largest single factor accounting for these upward revisions was the further deterioration during the intermeeting period in the outlook for energy prices; the pass-through of these prices adds about a tenth to our projection of core inflation during the second half of this year and about half a tenth next year. Owners' equivalent rent surprised us once again to the upside in the most recent CPI release, and we extended forward some of that unfavorable news. Other sources of upward revision, each small but together big enough to generate just a little upward nudge to our projection, included slightly higher near-term core import prices and slightly weaker structural productivity growth.

As before, we continue to see core inflation stepping down next year compared with this year, almost entirely because of the flattening out we have projected for energy and other commodity prices: We have the increases in those prices adding about 0.4 percentage point to our forecast of core PCE inflation this year, and we have them adding just 0.1 percentage point next year. Provided that this year's shocks do not get built into inflation expectations going forward, this removal of upward impetus should be enough to give core inflation a downward tilt. In closing, I might briefly mention that "speed effects" do not play an important role in shaping our outlook for inflation. The slowdown in growth operates first by bringing output down from above potential to right in line with potential by sometime during the first half of next year and then by moving output below potential over the remainder of 2007. For 2007 as a whole, output is so close to potential as to be roughly a neutral factor for inflation. If growth were to proceed at a subpar pace into 2008, the resulting gap in resource utilization could begin to place some downward pressure on inflation. Karen will now continue our presentation.

MS. JOHNSON. From the perspective of the global economy, one of the important revisions in this forecast from last time is the projected path for crude oil prices. We have incorporated into the baseline forecast a path for both West Texas intermediate (WTI) prices and the U.S. oil import price that is more than $5 per barrel higher in the fourth quarter of this year and nearly $7 higher by the fourth quarter of next year than was the case in the June Greenbook. It is still true, however, that the projected path, based as usual on market futures prices at the time the forecast was made final, is quite flat.

The sizable jump in oil prices this time reflects the volatility that we have seen in market prices for oil since late June, when the previous Greenbook was being finalized. Spot prices for WTI moved from below $70 per barrel at that time to a recent peak of $77 in mid-July and again yesterday, following BP's announcement that pipeline repair in Alaska will shut in about 400,000 barrels per day of crude oil. Price fluctuations during the intermeeting period reflected market concerns about the potential effect on supply of ongoing events in the Middle East, some disruptions to production in Nigeria, and a slight reduction in output by Saudi Arabia, as well as an awareness that hurricane season has arrived. No doubt the underlying strength of the global economy is contributing by maintaining overall demand as well. As of close of business yesterday, the futures path for WTI oil prices during the remainder of this year and next year was about $2 per barrel above the Greenbook baseline path. Clearly, further moves in oil prices are a risk to the forecast.

Another important element in the foreign outlook is the continued elevated level of nonfuel commodity prices, especially the industrial metals. Metals prices are down from their highs in May, but they are also up from their near-term lows in June. During the intermeeting period, spot prices for copper and zinc rose through mid-July and then partially reversed their recent increases but since have moved up again. On balance, metals prices are modestly higher since the time of the June Greenbook, but prices of other primary commodities are somewhat lower. As a result, our projected path for nonfuel commodity prices in this forecast is very similar to that of last time. The elevated level of these prices means that they will continue to have lagged effects on U.S. import and export price inflation for a time. The flatness of the path going forward means that we anticipate that the implications for import price inflation will abate noticeably in 2007, contributing to a sharp drop in the rate of inflation for core imports. Further fluctuation in the prices for these global commodities is also a risk to our baseline forecast.

These developments in global commodity prices, both fuel and nonfuel, along with other data released over the intermeeting period, led us to revise up some our forecast for inflation abroad through mid-2007. We expect that the upward pressures on inflation in the industrial countries will be felt in the near term, particularly this quarter, whereas those in the emerging market economies will be evident later this year and into next. The revisions are small, in part because foreign industrial countries have to date been very successful at containing the inflation consequences of higher crude oil prices and several have tightened monetary policy and in part because emerging market economies have continued to suppress domestic energy prices, delaying their effects in the process. Some monetary policy tightening has also been implemented by a number of Asian central banks.

We continue to read the evidence for foreign real GDP growth as indicating a solid pace of expansion, with the possible exception of Canada, where output growth slowed in the second quarter. We have fine-tuned our outlook for expansion abroad a bit—strengthening last quarter and this quarter and lessening the pace just a little next year; but the overall path for foreign real GDP is about the same as in June. Indicators from most of our important trading partners—for example, from Japan, the euro area, and China—suggest considerable momentum in foreign economic expansion at the present time.

Global financial markets confirm a generally favorable climate for continued strong growth, and many of the signs of increased risk concerns and heightened volatility from earlier in the year have faded. Over the intermeeting period, stock prices in many of our trading partners have risen. Equity price indexes in emerging market countries, in particular, have rebounded from the lows of mid-June but generally have not returned to the levels reached in early May. Other than in the United Kingdom and Japan, yields on ten-year sovereign bonds have moved down 10 or more basis points in the major foreign industrial countries since your June meeting, and spreads on dollar-denominated emerging market sovereign debt have partially retraced previous increases and are not far above the lows observed in early

May, with the exception of spreads for Turkish debt. On balance, the dollar is down just a little over the period.

The bottom line is that the staff's picture of the global economy implies an essentially neutral effect of the external sector on U.S. GDP growth over the forecast period, although one must remember that there are risks on both sides to that picture. The arithmetic contribution of real net exports to GDP growth for the rest of this year and next year is essentially zero—with a small positive contribution over the second half of this year, unusual for us, followed by a small negative contribution in 2007 as a whole. Exports of both goods and services are expected to grow strongly, supported by steady expansion of real GDP growth abroad. The step-down in U.S. real GDP growth should restrain import growth somewhat over the next six quarters.

The nominal trade deficit on goods and services is projected to widen about $75 billion from the estimated figure for the second quarter to that for the fourth quarter of 2007. The change in the non-oil nominal trade balance accounts for only one-third of that $75 billion. This change in the overall trade balance is sufficiently small that the projected ratio of the trade deficit to GDP is steady at about 6 percent. Nevertheless, the current account deficit is projected to exceed $1 trillion at the end of 2007, and the ratio of the current account deficit to GDP rises from 6.5 percent to 7 percent next year. A growing net deficit in investment income flows largely explains the further deterioration in the current account balance. That change, in turn, is accounted for by a substantial widening of the deficit on portfolio income that more than offsets a gain in the balance of direct investment income. The financing requirements of our external deficit remain large and will continue to grow as long as the level of the trade balance remains far from zero. David and I will be happy to answer any questions.

CHAIRMAN BERNANKE. Thank you very much. Are there questions for David or Karen? President Poole.

MR. POOLE. I'd like to put a question to you, but I want to do it in the form of an observation that I'd like you to comment on. It has to do with the inflation situation. Obviously, we are not in a situation anything remotely like that of the 1970s, but I do believe that we have very generalized inflation across sectors and across regions of the world. Let me support that statement in the following way. In the overall numbers, the core PCE is at or above 2 percent—or was in '04 and '05 and is projected for '06 and '07. So this number is for a four-year period—it's not a little flash in the pan. The inflation projections abroad have been shaded up. I think you commented explicitly to that effect. Import and export prices are being revised up a bit. The revisions are not huge, but they are all in the same direction. Dollar depreciation would tend to promote higher prices.

I've looked at the disaggregated CPI for the twelve months ending in June of this year versus the twelve months ending in June 2005—so it's a year-over-year comparison. When we look at the components—I won't go through all of them—we know what's happening to owners' equivalent rent. We know what is happening to the energy part of it. Household furnishings and operations are up; apparel is up. The major things going down are actually new vehicles and used vehicles, which are tending to hold the CPI down. Public transportation is up; medical care commodities are up; and there is a very small decline in medical care services. Other goods and services, communications, and recreation are all up. Education is up just a bit. The upward revision is very generalized across almost all sectors of the CPI. Then, on the cost side, we're going to have this big upward revision in unit labor costs. By the way, were the unit labor costs released this morning?

DAVID WILCOX. They should have been released by 8:30, I think.

MR. POOLE. Maybe we'll see what happened there during the break. My argument is that we have very generalized inflation pressure across regions of the world and across commodity and service sectors. The pressure is not isolated. Could you comment on that observation?

MR. WILCOX. Broadly, I don't disagree that the acceleration in consumer prices is broadly based. It is sensitive to sample period. Michael Kiley's briefing yesterday to the Board touched on some of the same issues and presented an exhibit that displayed the median CPI as constructed by the Federal Reserve Bank of Cleveland and the trimmed mean constructed by the

Federal Reserve Bank of Dallas. Both of those measures, which are alternative attempts to capture the central tendency of inflation rates, have also moved up notably, most of all from 2003. I guess I would remind you that we were a little puzzled as to why inflation was as low as it was in 2003. It fell below our model simulations. We have never been able to come up with a fully satisfactory explanation for why it got as low as it did. So if you use 2003 as your base for comparison with the present, the trend looks very worrisome. If you smooth through that—I don't know that "anomaly" is the right word—unexplained dip in 2003, you are left with a trend that by any of these measures has moved up. The particular comparison that we chose to highlight yesterday in the briefing to the Board emphasized the acceleration in housing services, but other components have played a role as well. We also think that the energy-price pass-through into core has played a broadly diffuse role in giving some upward impetus to core inflation.

MS. JOHNSON. If I could just comment on the worldwide aspect of your point, I'd say that the one piece that's missing is that globally we have not seen this inflation pressure translate into an acceleration in wages and labor compensation—not so much here in the United States and not in rest of the world. Even in places where central banks are tightening monetary policy in recognition of the inflation that they are experiencing in their consumer prices, one is not hearing stories about an acceleration of wages.

So there's truth in everything you've said, and I wouldn't disagree that it's worrisome, but we've seen huge changes in the structure of global economic activity. Those changes may have effected significant changes in relative prices, particularly of energy on the one hand and of other kinds of primary commodities on the other. We keep saying that those price changes are going to end, right? Every FOMC I come here, and I tell you that those prices are flattening out starting this morning. [Laughter] Then I come back six weeks later, and I say it again—and that's not lost on me.

However, there is a question in my mind as to trend versus relative price effects here, and I think there are surely some of both types of effects. It may be wrong to attribute the pressure entirely to a relative price shock that's going to go away immediately, but it's certainly also wrong to call it all inflation trend with no relative price component.

MR. WILCOX. Now that I've had a chance to take a breath—another factor that obviously is critical is the behavior of inflation expectations. As you know, the Survey of Professional Forecasters long-term measure has been flat, immovable, at 2½ percent. The University of Michigan survey—which we show in the Greenbook table back to 2004—was at 2.8 percent, on the median measure, in the second half of 2004, and it is at 2.9 percent in June and July of this year. So long-term inflation expectations have really been remarkably well contained. Shorter-term inflation expectations have fluctuated more with changes in overall consumer prices, and they are up a couple of tenths from the end of 2004. But there hasn't been a lot of upward drift in measures of inflation expectations.

CHAIRMAN BERNANKE. President Moskow.

MR. MOSKOW. President Poole asked a significant part of my question, or he presented a significant part of my question. [Laughter] But let me ask you about the markup part of this. You know, we have always thought that there was a cushion for compensation to go higher, for input costs to go higher, and for profit margins to shrink, and therefore we wouldn't get any pass-through into price increases. Those markups have remained incredibly high—I mean, profit margins are very high. I was just wondering whether you think we should put less weight on this factor going forward when we're looking at our forecasts, given what we've seen in unit labor costs, which you mentioned, and other changes in the forecast.

MR. WILCOX. So, they revised down. The implication of the NIPA revision is that, according to the latest estimates, those markups are a little lower than they were before. They are still noticeably above their historical averages. In the judgmental forecast, we have never placed an enormous amount of weight on those markup measures, and perhaps the chain of events during this intermeeting period illustrates why. Our FRB/US model does put a lot of weight on those markups, and it revised up its inflation projection 0.6 percentage point, something like that. Now it's within spitting distance of the judgmental forecast.

First of all, we have had a hard time getting those markups to enter reliably or robustly into an econometric equation. Second, we've been leery of the kind of revisions that took place in this year's NIPA revision. We've certainly regarded them with some nervousness and refer to them as presenting a downside risk to inflation, if those profit margins should compress. But I'm not entirely sure how to respond to your question as to whether we should put less weight on them since we haven't put an enormous amount of weight on them in our judgmental projection to date. They are a secondary determinant of our inflation outlook in the judgmental projection. As I say, to the extent that you were prepared to put some weight on them before and to see them as high before, you would still see them as high now, though less so.

MR. MOSKOW. And the unit labor cost trend hasn't caused you to change your outlook for the future either?

MR. WILCOX. Again, the statistical analysis is very frustrating. It's hard to get that variable to enter reliably, particularly with real-time data that are susceptible to the kind of revisions that we have seen. We do put a nod in our inflation forecast to the acceleration in structural productivity, which is related to unit labor costs, but unit labor costs themselves have likewise not played a prominent role in our judgmental forecast.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you. I have a question for David and Karen, and it picks up on President Poole's. My question has to do with what, if anything, we can learn about the role of energy-price increases as a factor raising core inflation here from the experience of other countries. Since we're not the only country experiencing increases in energy and other commodity prices, my question is whether or not there is some econometric or other evidence that pertains to the degree of energy-price pass-through into core inflation in other developed economies. I'm thinking particularly of economies in which inflation expectations are reasonably well anchored—for example, the United Kingdom, Canada, and the euro area. What do we know about energy-price pass-through into core inflation? Is there evidence of that?

MS. JOHNSON. I suspect that there is, but I confess that I'm not really able to give you the details this morning. We have not attempted to do a major project of that sort. There are two things that have to be immediately taken into account if you're thinking about some kind of cross-country, or at least non-U.S., look at this. First are the tax features. Many of the other industrial countries have specific taxes, much higher specific taxes, on fuel products of one sort or another, particularly on gasoline but also on other things. Those economies will experience a much smaller percentage change in the wholesale and retail prices for any given change in the crude oil price than we will. The shock is always damped by that on the upside but also on the downside, of course. So that's a factor that we point to often, and that is why ocular regression kinds of pass-through would make you think that pass-through is less abroad.

Second is the exchange rate effect. If the dollar is trending down a bit, for a short time anyway, it needs to be taken care of in the dynamics of the equation rather than in the structure of the equation because we believe that the dollar oil price adjusts to global demand and supply. But for short episodes in particular, if one thought the dollar was experiencing a spike or a this or a that, then obviously the changes in the exchange value of the dollar look to other countries as a piece of how much oil prices have gone up for them. In general, many countries—say, Japan and, for that matter, even Europe—have a sense that overall the effect is less because their energy intensity is less. They are constantly lecturing us that we consume too much energy. Whether, ceteris paribus, the actual parameter in terms of the price shock really differs I can't tell you, but the specific taxes and the consequent reduction in energy intensity that they have helped to produce, and other factors that have made them less energy-intensive, do make the problem seem to be smaller in most of the other industrial countries.

CHAIRMAN BERNANKE. President Pianalto.

MS. PIANALTO. David, in your opening comments you said that the staff got the last two employment numbers right. But they were below the market expectations of what the employment numbers would be. In the Greenbook baseline projections, the employment growth numbers going forward are even lower. They are 80,000 per month for the rest of this year and 40,000 per month in 2007. Those seem like very low numbers; I think that, if those numbers are realized, they're going to continue to surprise markets and to appear pretty weak. So I was wondering how sensitive to those specific employment numbers the outlook is. I know that the Greenbook has a lower NAIRU alternative simulation; is that supposed to be providing us with some information about the uncertainty in that forecast? Given that lower NAIRU alternative in the Greenbook, I am also curious about what kinds of employment numbers we are looking at that would achieve those outcomes.

MR. WILCOX. The predominant factor in generating those strikingly low employment gains is our projection for trend labor force participation over the projection period. With the aging of the workforce, we think that the trend is now turning decidedly downward, not for cyclical reasons, not because the labor market presents atypically unappealing job opportunities, but because an increasing share of the population is shifting into age groups that have historically exhibited lower labor force participation rates. My recollection is that the difference between a flat participation rate and a declining participation rate—and I'll look it up here if I can find it fast enough for you—is on the order of about 40,000 jobs per month. We have a neutral private payroll gain for the remainder of this year in the neighborhood of about 90,000 jobs. If the participation rate were to remain flat, 20,000 to 25,000 jobs would be added to our trend estimate. We think that the decline in labor force participation is taking about 0.3 percentage point off the growth of hours over the projection period. Now, if that were to flatten out, if we simply have the trend wrong, then that would play through the macro forecast—I'm going to do something dangerous here and think out loud—a lot like the adjustment to potential GDP that we just made following the NIPA revision. In essence, a flat participation rate would mean that trend hours growth is that much faster and that trend aggregate demand 0.3 percentage point faster could be sustained without generating additional inflation pressures.

MS. PIANALTO. Thank you.

CHAIRMAN BERNANKE. President Minehan.

MS. MINEHAN. I have a follow-on question to Sandy's. I know how the benchmark GDP revisions work into your forecast. But if you look just at the headline numbers, we seem to have the worst of all circumstances for a central bank: a good deal slower growth for a number of reasons—the benchmark being one of them—even though all the output gaps and everything else remain relatively the same, slower headline growth in both GDP and consumption, and higher inflation. This is not an easy set of circumstances by any means. One thing I am concerned about, like Sandy, is the speed with which you have consumers reacting in their consumption to potential GDP changes. You haven't changed the saving rate that much from your earlier forecast, but you do get the 0.3 percentage point out of GDP growth. I was just wondering about your thoughts on that—the reaction seemed fast. Second, outside of a recession, have we ever seen this kind of decline in real estate investment in a period of growth? We were trying to find it, but it's hard to sort through cause and effect here. The decline seemed very large in terms of the negative real estate investment. Finally, Karen mentioned that we haven't seen wage inflation or wage growth outstrip productivity here or in major countries anywhere else in the world. I'm wondering, given all the focus on the fact that median family incomes are not growing on a real basis, whether there is at least some chance that we're going to start seeing an increasing return, particularly for skilled people, which everybody tells you they can't find.

MR. WILCOX. Let me take those concerns in turn. First, with regard to the speed of adjustment of consumption to potential GDP—perhaps it is ironic, but our assumption is that we are the most ignorant ones in this little morality play; that households and businesses have been aware of the slower growth of potential GDP; and that, as far as households and businesses are concerned, what goes on in the basement of the BEA is utterly without consequence. You can see that as well, for example, in our leaving the stock market projection unrevised. Implicit in the way we have reacted to the news from the BEA is that households and businesses knew of the slower trajectory.

Investors knew of the slower trajectory for potential GDP. It was we who were off in previously assuming an erroneously steep upward trend for potential GDP. It does change the error pattern: The pattern of errors over history is changed a bit, and at the margin, that sends us into the projection period with slightly different dynamics; but those are very small effects. (Sandy is alerting me that an important piece of news that we received was the weakness of disposable income growth in the second quarter.)

MS. MINEHAN. But you still have it growing pretty fast over the forecast period—4 percent or so.

MR. WILCOX. Yes; indeed, faster than spending, and that's how we generate the upward motion of the personal saving rate.

MS. MINEHAN. The way that changes is sort of speedy, too; but that was in your previous forecast.

MR. WILCOX. Now, let's see. I can't read my own notes. The second question is?

MS. MINEHAN. Just a real estate investment question.

MR. WILCOX. Oh, have we seen anything like this outside of a recession? I don't know the answer to that. I would mention, however, how strong residential investment was through the recession and how well sustained it was and how we all remarked on the strength with which that sector persisted through that period of very low interest rates. Every business cycle is different from every other one, but this one certainly has its unique feature, which is the uncharacteristic strength of residential investment through the recession period, and we have that coming off now.

Third, you asked about growth in real compensation or real wages. We have some acceleration in our projection. We expect it to occur. We expect it to be consistent with a moderating profile of price inflation. We do see labor's share of income as lower now than it will be in some equilibrium point in the future, so we expect that aspect of national income to shift in its composition.

MS. MINEHAN. Slowly.

MR. WILCOX. Slowly.

CHAIRMAN BERNANKE. President Fisher.

MR. FISHER. Just a quick question for Karen. Karen, looking at the global economy as a whole, would you say that capacity utilization has increased since we last met, since the end of the last quarter, or since the beginning of the year and, if so, to a significant degree?

MS. JOHNSON. I would say in a kind of notional sense that most especially China, for example, has not slowed to the degree that we and everybody else had been expecting. There was a significant positive surprise in the Q2 numbers for China. At the time we saw what we called the "volatility" of May-June, when it looked as though some commodity prices were coming off and the stories that they had been held up by speculators and so forth seemed true, and it looked as though those prices might actually adjust downward and stay down. Well, that perception was very short lived: The fundamental demand for some of these products seems to have reasserted itself, and many of those prices are back up where they once were. So based on those kinds of indirect signals, I would say that the strength of the global economy is at least what it was three months ago and perhaps a tiny bit stronger.

MR. FISHER. Is that net of our weakness or our declining? This is just guess work, but I am curious.

MS. JOHNSON. If the full trajectory going through the rest of this year that is in the Greenbook takes place, then the United States is going to take the world back just a bit, and it will bring Canada with it probably. At least that is what our forecast says will happen. We see China stepping harder on the mechanisms that it uses to try to slow its economy. In some sense, I would say that the Greenbook picture we're painting is that global capacity utilization is perhaps at a peak right about now and that we anticipate the slowing in the United States and the efforts in China certainly to outweigh the continued strength, say, in Europe or Japan, which is probably going to happen. Still in all, that may be the mean of our forecast, but there's a distribution around that, and it's certainly possible that there are upside risks as well as downside risks in those capacity pressures.

MR. FISHER. Thank you.

CHAIRMAN BERNANKE. Any other questions?

MR. WILCOX. May I just briefly mention the staff view? Our research on structural labor force participation is laid out in a Brookings paper that is just about due for release by folks who are our labor specialists. That paper sets out in considerable detail our work in this area.

CHAIRMAN BERNANKE. Thank you. We are ready for our economic outlook go-round. For President Plosser's benefit, I will say that we have two go-rounds. The first is on the economic outlook, and the second is on policy issues. One hand means you want to be recognized, and Michelle will put your name on the list. If you want to interject a question or a comment, we have two-handed interventions. Who would like to go first? President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Economic conditions in the Seventh District moderated in the second quarter in line with our expectations after a very strong first quarter. Most of my directors and business contacts believe that added caution is taking hold in the economy. Some think that growth will be noticeably slower in the second half of the year, and some believe that slowing will continue into 2007. However, my contacts are unable to point to explicit examples, apart from housing, showing that such a marked deceleration currently is in train. Indeed, many of the reports that we get are quite upbeat. For instance, one of our national temporary help contacts said his indicators were pointing to a bounceback from a weak second quarter, and he was seeing strong conversions from temporary to permanent status.

One reason that some people were more pessimistic was that they believe the current expansion is a bit, as they say, long in the tooth, and so the economy must be due for a period of weakness. Of course, the economic literature finds that the probability of an expansion's ending does not depend on the expansion's current length. However, these comments could reflect imbalances in the economy that increase exposure to adverse shocks. But except for housing, any references to such imbalances are vague at best. Although it is not certain, the mixture of reports may simply be indicative of the normal process of the economy's moderating to growth averaging near or a bit below potential. On the inflation front, we continue to hear reports of cost pass-through and other price increases similar to those we've received in recent months.

Turning to the national outlook, although growth moderated in the second quarter, GDP growth for the first half was a solid 4 percent. The unemployment rate remains below 5 percent, and the core PCE inflation rate has now been at or above 2 percent for more than two years. It has to be said, in looking simply at the top-line data that form the basis of most Taylor rules, that real activity is pretty good and inflation is too high. In this context, three related questions guided my thinking on the outlook. First, are there important imbalances within particular sectors that should concern us? Second, is the list of exogenous downside shocks accumulating to a point that the risks to growth outweigh those from deteriorating inflation? Third, are the current financial conditions restrictive or not?

Regarding sectoral imbalances, for some time we have assumed a marked slowdown in residential investment, but other sectors do not seem to be outside normal ranges of variation associated with an economy that is growing close to potential. Business fixed investment last quarter was weaker than we had thought, but the weakness appeared to largely reflect transitory developments in volatile categories—communication equipment and transportation. Importantly, we don't hear any stories of pulling back due to earlier overinvestment. On the household side, the steady growth in the consumption of nondurables and services indicates that households do not seem to be overly concerned about their longer-term prospects for income growth. So for now, I do not see any sectoral imbalances that would pile on the housing adjustment and cause a more fundamental downshift in economic growth over the forecast period.

What about shocks? Well, the list of downside shocks is troublesome. Energy prices continue to surprise us on the upside. Geopolitical risks have increased, particularly considering developments in the Middle East. We now have some sense from businesses that animal spirits may be making them more cautious. Currently, however, I think that this is more rhetoric than action. Still I think that all these factors deserve careful monitoring.

Third, what about financial conditions? When I was preparing for this meeting, I talked to no one who thought that conditions are restrictive. The modal response continues to be that financing is readily available and is fueling a lot of dealmaking. Ten-year Treasury rates are under 5 percent. Risk spreads are low. If we want to assess the constraining effects of past increases in the federal funds rate, we need to take into account the level of interest rates. In all likelihood, the real funds rate has only recently reached neutral. Furthermore, we need to consider the accommodation that we had put in place in 2003 and 2004. The core PCE inflation data we now have for that period are about ½ percentage point higher than what we saw in the real-time initially announced inflation rates that guided our policy decisions back then. So the unwelcome disinflation of 2003 was not as severe as we had feared at the time, and accordingly, our policy was more accommodative than we thought at the time, which may have had inflationary consequences. The incoming data make the current inflation situation seem much more troublesome. First, as we all know, the latest reading on core PCE inflation is 2.4 percent. That's pretty high. Second, the revised NIPA data indicate that core PCE inflation has been at or above 2 percent since April 2004, as President Poole mentioned. The combination of these two facts makes me more concerned that inflation expectations may soon begin to drift up. Finally, I don't see the forces in play that would make the policy assumption in the Greenbook restrictive enough to put core inflation on a downward trajectory over the next 18 months. If the pass-through was small on the way up, it seems likely to be small on the way down, and output gaps that might be emerging will not alter inflation's trajectories very much or very quickly with flat estimates of Phillips curves.

CHAIRMAN BERNANKE. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. So far the economy has stuck pretty close to the script of the soft landing sketched out in the June Greenbook. Real GDP growth slowed markedly in the second quarter. Housing construction has declined sharply, and house prices have decelerated; this situation suggests that our policy actions have taken hold in this interest-sensitive sector. The recent sharp rise in oil prices should also put a damper on growth of real income and consumer spending. Most forecasters now expect below-trend growth in the current quarter. Nonfarm payroll employment has shifted down to a more-sustainable pace, and the unemployment rate has risen to 4.8 percent, just a bit below standard estimates of the NAIRU. Core inflation, although uncomfortably high, came in 0.2 percentage point below the June Greenbook's forecast in the second quarter. In addition, despite further large increases in the price of oil, inflation expectations held firm. In light of these developments, a reasonable forecast is for growth to continue to run slightly below its potential rate, the unemployment rate to edge up, and core inflation to recede gradually.

At our last meeting, I laid out some of my concerns about downside risks to the outlook for growth and upside risks to inflation. Quite honestly, I cannot say that the recent data have done much to assuage my angst on either account. The recent falloff in housing activity and the deceleration in house prices have been faster than expected. The current Greenbook has residential investment falling at an annual rate of 14 percent in the second half of this year, nearly twice as fast as projected in June. These surprises intensify the risk of a sharper slowdown as the lagged effects of our past policy actions come fully into effect. For example, the housing slowdown could become an unwelcome housing slump as envisioned in one of the Greenbook alternative scenarios. A large homebuilder in our District summarized the views of many of our contacts when he recently commented that "the housing market has not yet popped, but a hissing sound is now clearly audible." [Laughter] He pointed to rapidly rising cancellations as a particularly ominous sign. I will be watching the incoming data closely for signs as to whether the housing slowdown remains orderly as hoped or takes a steeper downward slide, posing a greater risk to the economy.

My concerns about inflation have also been somewhat heightened by the recent data or, more precisely, revisions to past data. Core measures of inflation continue to be well above my comfort zone. Of course, after the experience of last year, when core inflation was revised up by a considerable amount, I approached this year's annual NIPA revision with some considerable trepidation. I was relieved to see that the core PCE price inflation data came out of the revision relatively unscathed, revised up just 0.1 percentage point for 2005; but other aspects of the report were somewhat less reassuring for the inflation outlook. First, the rate of labor productivity growth over the past three years has been a bit slower than we thought, primarily because of downward revisions to the rate of capital accumulation, so that the Greenbook now projects structural productivity growth of 2.7 percent, about ¼ percentage point slower than we thought back in June. This revision suggests somewhat less downward pressure on inflation emanating from cost reductions and, therefore, greater upside risks to inflation.

But that wasn't the only surprise tucked away in the annual revision. The upward revision to compensation growth over the past four quarters implies that growth in unit labor costs over the past year has been more rapid than we had believed. I had thought that there was a good chance that compensation per hour and unit labor costs would increase relatively moderately going forward, helping to contain inflationary pressures. The data revision was thus a bit of a wake-up call for me, and I have revised upward my views on the outlook for compensation and unit labor costs. My reading of the report is that the revised data provide a clearer and less sanguine picture of the trend in this measure of compensation. However, the employment cost index was in line with expectations in June and continues to show moderate growth. Moreover, even with revisions to productivity and compensation, the markup in the nonfarm business sector remains very high by historical standards, suggesting that firms do have room to absorb costs.

Overall, I view the inflation outlook as highly uncertain, with a pronounced upside risk. As I mentioned at the last meeting, we just don't have a good handle on why core inflation has risen of late or how persistent this rise will be. While it is comforting to attribute the increase to energy and commodity-price pass-through, empirical evidence suggests that pass-through effects have been quite modest since the mid-1980s. If so, the door is open for other explanations that may have a more lasting influence and require a more aggressive policy response.

Something that makes me even more uncertain about the inflation outlook is that standard backward-looking Phillips curve models of inflation appear to be breaking down. It has been widely noted that the estimated effect of resource utilization on inflation in such models has become much smaller over time. But equally striking is the finding that the sum of coefficients on lagged inflation when freely estimated appears to have fallen as well, suggesting that inflation has become far less persistent. In fact, our staff finds that, in looking over the past ten years, it is better to assume that core inflation will return to its sample average over the next four quarters than that it will remain in its recent range or follow a standard Phillips curve model. Interestingly, this decline in the persistence of core inflation has occurred at roughly the same time that long-run inflation expectations, as measured by the Survey of Professional Forecasters, appear to have become well anchored, and this may not be a coincidence. Economic models with forward-looking inflation expectations tell us that, if the central bank has credibility and holds to a fixed long-run inflation target, then inflation will be less persistent than is implied by the standard backward-looking Phillips curve model. Indeed, the puzzle for macroeconomists has been why we see so much inflation persistence. Perhaps we no longer do. If that is true, inflation may decline faster than the Greenbook expects.

Admittedly, the past ten years form a relatively small sample from which to draw definitive conclusions. But the inflation process may have changed in a fundamental way, and we should be open to that possibility. I would like to stress that this evidence and the analysis concern the simple correlations of the inflation data that are used for forecasting. The evidence does not relate to structural relationships, and therefore it does not necessarily inform us about how our policy decisions affect the economy or about the best course for policy. In summary, although my modal forecast is relatively benign, I remain very concerned about risks to both growth and inflation.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, at our last FOMC meeting in my now over one-year-long attempt to stay away from any analogies referring to innings or baseball [laughter], I used the analogy of Phil Mickelson at the U.S. Open to suggest an opposite strategy. What I suggested was that we use the minutes we are about to release and especially your testimony, if you recall, to center the ball on the fairway so that we could approach the green from the point of this meeting. It appears now that we have done that, you have done that, and the minutes have done that, and we are basically at a point where we are confident of either a hawkish pause or one more tightening of the screw in terms of raising the federal funds rate.

The Greenbook and the Bluebook do a good job of presenting us with an analytical framework for this meeting. I want to compliment them, with an "i," but I also thought it might be helpful to complement them, with an "e," with some of the data and inputs from our business contacts and the work of our own research staff on the issues we have been talking about.

Let me start with housing. I regularly talk to CEOs of two of the five big builders. They like using analogies. In the words of the second largest builder in the country, "The pig is still in the python." That is, he expects the decline from peak to trough in home sales to exceed that forecast in the Greenbook. I think we had 17½ percent; he is talking about a correction of 25 percent. To adhere to the convention of reporting on my District, which we are supposed to do, I'm happy to say that only Texas, where our economy is on the verge of employing ten million workers, is holding up in the books of these two homebuilders. Even the Carolinas are starting to fold over, and the weakest area is California. The Big Five builders and other homebuilders are reacting as you might expect. They are cutting staff. They are renegotiating their prices and getting concessions from their subcontractors. They are walking away from their planned land deals, and they are renegotiating existing contracts. This is what a macroeconomist would expect in reaction. In answer to Cathy's and David's questions, one CEO, who has been in the business since 1973, reports that this correction is the roughest and most sudden he has seen, with one exception. That exception is that the industry is significantly consolidated, with most of the big builders either supporting very strong balance sheets or having ready accessibility to capital from a flush banking system and eager private equity groups. So the reports I received from the Big Five are that, while they are wringing their hands, they're also licking their chops; they are plotting acquisitions of smaller, weaker builders when they reach the depths of despair. This situation may signal the prospect of a shorter turnaround time for a correction, or it may not, but I just throw it out for your contemplation.

Clearly, however, the housing downturn and the cumulative effect of energy and electricity price increases are having an effect. One of my contacts is the CEO of a large "casual dining" restaurant chain, which employs 110,000 out of the 4.8 million people employed in that segment of the restaurant business. He reports that his utility costs this year have risen 30 percent and his materials costs have risen 15 percent. Although customers are moving downscale in terms of the dining chain, guest counts for that segment of the market, which again employs 4.8 million people, are down 5 percent in the last week, and he sees that trend continuing.

The CEO of a national middle price point retailer reported that furniture sales in July were down 21 percent. A low-end price point retailer—the low-end price point being Wal-Mart to 7-Eleven—reports slowing traffic. In the words of the head of Wal-Mart USA, John Menzer, "What we saw last month is getting worse." So-called morning madness sales, which are common in September, have been moved up to July and August.

The railroads report a significant slowdown over the past four weeks in the shipment of forest products. So we do have a slowdown, although it is important to point out that the rails, according to the companies themselves, expect to increase traffic 3 percent during the second half because of industrial demand. UPS reports through its CFO that it is shipping 13.2 million packages a day, which is down from about 13.5 in the first half but up from 12.7 in '05. Incidentally, their report last quarter proved to be remarkably accurate in terms of their expected growth for the second quarter, if it, in turn, is revised upward toward 3 percent. So I want to stick with what I reported at the June FOMC meeting—that our "roadster" economy has downshifted in growth.

I also reported a sense that inflation pressure gauge needles were moving forward, and my soundings this time indicate that they continue to do so. I thought that the briefing the staff gave to the Board and circulated to us was very helpful, and I appreciate very much the discussion we had earlier on inflation in answer to President Poole's question. It is important to point out that the monthly trimmed mean PCE inflation rate in June was 3.1 percent. On a twelve-month basis, it picked up to 2.7 percent. But very importantly—if, as President Poole suggested, you break down the PCE components, whether you trim it or you use it "fully garbed" [laughter]—83 percent of the components are increasing in price. That is up from 73 percent in April. What that means is that only 17 percent of prices are falling compared with 27 percent two months ago.

We know that inflationary pressures are building abroad. Karen, our work in Dallas is very much in its infancy; but to the extent that it helps, our measurement of industrial capacity utilization in all the large member states of the European Union is up. Recent revisions to the United Kingdom's national accounts indicate that the Brits are operating closer to capacity; and if you look at the Tankan survey, for the first time in more than a decade, Japan is reporting capacity constraints. Like everybody else, we have no reliable data on China and India, but we know that their economies are steaming along. As they grow, they cut into existing global capacity available to U.S. businesses. Let me give you an example. Our shipping CEOs report that a portion of the international fleet of large bulk carriers, although they estimate that this portion is only about 2 percent, has now been rerouted and is being used for intracoastal, intra-Chinese trade. So at a time of the year when usually the rates cave for these Panamax ships, which are the largest bulk carriers, the daily rate has stiffened another $1,000. It is up to $23,000 from the $22,000 that I reported at our last meeting, even though this is usually the soft time of the year. Just for a reference point, last year at this time it was one-half that price.

At home our bankers report, in the words of the CEO of the largest bank in Texas, "more talk about price increases and pass-throughs." We are seeing the return in our District of the term "air ball financing," which is financing based on prospects not on hard reality. One example that caught my interest, which is yet unreported in the public press, is that, according to the CEO of a large corporation with a $30 billion market capitalization, they have been approached by a single buyout group to take them private. So there is a lot of liquidity left in the system.

The CEO of Wal-Mart USA reports that they are building in a price increase of 1 percent this year. It is the first increase in a long, long time. Typically they built in minus 1 percent to minus 2 percent. The increase was confirmed by the CEO of one of Wal-Mart's largest suppliers of nongrocery goods, who quoted Lee Scott as telling him last week, "We are reaching the limits of productivity enhancement and may have to take it out in price increases." Kimberly-Clark's CEO reports that he started the year planning for an inflation factor in their cost of goods sold of $150 million. It has been ratcheted up in two intervals and is now at $350 million. He reports that they are covering increases in the cost of goods sold through price increases. This is in sharp contrast to what he has been telling me before every previous meeting.

Food processors report the same. It might be noteworthy that corn prices—even though we don't include them in the core PCE—are, because of ethanol production, up significantly. That's very unusual at this time of the year. Frito-Lay's CEO reports an overall inflation shift—in his own words, "the ability to pass through price increases and make them stick."

Finally, Mr. Chairman, at a recent meeting you asked about my reports from Hewitt, the consulting company, regarding the prospects for health care costs. According to one of my sources, several of the largest insurers are focusing on a settlement range of roughly 7 percent to 8½ percent growth for next year. It is a little more than they had expected; it is roughly what it was last year. I might point out that those companies cover a large number of people.

To supplement this input, I touched base with three people I consider to be the best long-term practitioners in the fund-management business. Each one has been in the business for more than thirty years. Besides reporting continued high appetites for risk and continued elevated liquidity in the marketplace, these gnarly old-timers report a shift in the attitude of businesses that they cover in investing. To quote one, "Before, the operators we deal with were worried about getting their heads handed to them if they tried to pass through price increases; now they're trying to see what they can get away with." In summary, the CEO of Cadbury

Schweppes—to kill the serpentine analogy—says that “we’re just not through the snake yet on inflation.”

Mr. Chairman, this is a long and faithful report. For all the inherent risks, I pay close attention to what I hear from my CEO contacts. According to them, in addition to the data that we are seeing, the economy is slowing from its torrid pace of growth and downshifting to a more normal range. Global capacity and utilization are not slowing apace from what we can see, or if they are slowing, overall global capacity utilization is staying at an even level. It is also clear that the business community has its finger poised on the trigger of price increases. It may well be that the lagged effect of our de-accommodation has yet to temper the price equation. It may be that energy prices and other cost-push factors are at a point of tapering off. It may be that moderation in the domestic economy’s growth rate will remove demand-pull potential, and it may be that tightening measures of our counterparts abroad will tamp down input prices for our producers here, although it could have a counter-effect in terms of the exchange rate effect on the costs of imports. But I do want to ask us to remember that inflation is—as stated in a paper that was circulated previously—an inertial process. (The paper may have been from you, Bill.) We must be very careful in word and in deed that we do not encourage impulses that will spur that inertia and that will prove harder and more costly to rein in further down the road. Thank you.

CHAIRMAN BERNANKE. Thank you. President Minehan.

MS. MINEHAN. Thank you very much, Mr. Chairman. Incoming data on the national economy have been slightly lower on the growth side and slightly higher on the side of continuing price escalation than at least we expected, and we have seen reflections of both these trends in the New England economy. Overall, however, my sense is that growth for the region and the nation remains relatively solid but that price pressures are a concern.

The region's economy appears to continue to grow at a pace that will be sufficient to keep local unemployment levels in the fours. The region has a slower pace of job growth than the nation, but total personal income is growing at about the same pace. This suggests that per capita income growth is relatively solid, which is reflected in rising retail sales and state income tax collection. Indeed, local businesses continually comment on their inability to find skilled labor so that at least some of the region's slow job growth may be attributable to supply rather than demand conditions.

New England's residential housing correction is becoming more evident and, by some measures, may be more significant than that for the nation as a whole. Home sales were 4 percent to 5 percent off their 2005 highs in the first quarter. That is similar to the nation, but the Case-Shiller-Weiss repeat-sales index sees, at least for Q1, the nation's home-price escalation at about 10 percent year over year but Boston area prices up much less than that. More-recent data from other surveys suggest that regional prices may be falling. Inventories of homes for sale continue to grow, and the value of regional residential construction contracts fell more than 20 percent, compared with about 4½ percent for the nation. This number likely reflects the relatively small amount of residential construction in the region, but the downturn is eye-catching anyway. Despite this, consumer confidence rebounded a bit from earlier this summer, and business contacts report relatively good performance.

Now, one thread in my recent conversations with businesses is not dissimilar to what President Fisher just talked about. I found it a bit troubling that manufacturing and related business services appear to believe that they have greater pricing power than before. They are talking less about increasing competition and less about efforts to increase productivity. They seem to be less worried about margin squeezes and more confident that rising input costs, particularly those related to energy, can be passed on. Some even report that strong demand has enabled them to raise prices or to avoid discounting even without major new input cost pressures. In general, there was a disquieting tone of greater tolerance for inflation.

On the national scene, recent data on second-quarter growth, employment, and housing market trends seem to indicate a general softening of the economy. This is not unexpected. All of us have been forecasting a gradual slowdown to potential or slightly below over ’06 and ’07 as the economy makes a transition from consumer-led to business-led growth and the saving rate climbs to a positive number. But has the evolving slowdown turned out to be a bigger soft patch than expected, or are we simply suffering through the ups and downs of the transition process? I am not sure of the answer to that question. I found the relatively low GDP and consumption figures for late ’06 and ’07 in the Greenbook forecast a bit disquieting, even after recognizing the effect of the benchmark revisions on potential GDP.

Our forecast in Boston had been in sync with the Greenbook’s and on the low side of the range of forecasts around this table, but now we see growth of 0.6 to 0.7 percentage point above the Greenbook in ’07. We’re not projecting as large a hit to residential investment over the period, and we see solid disposable income offsetting high energy costs and lower housing wealth to a greater degree than does the Greenbook. Moreover, although slow job growth is a concern, at full employment or beyond how much of this is a supply rather than a demand phenomenon, particularly when you take into account lower labor force participation?

Are firms hesitant to hire because they are fearful of the future or because they can’t find the skills they need? They certainly are not constrained by a lack of resources. Thus, I am inclined to the view that, although things seem slower than we expected and the Greenbook forecast seems softer, not much has really changed since our last meeting. Consumer spending has been relatively well maintained despite a weakness in Q2. Spending for equipment and software appears to be in good shape. And net exports, given growth abroad, will be positive at least for a time. Residential investment is waning, but how fast is hard to say, and there well could be an offset to that from nonresidential investment. Financial markets remain accommodative, and given the rise in inflation, real rates are down.

What is a bit different is the fact that inflation is growing at a faster pace in the short run and is growing across most aspects of the core measure. Certainly it is faster and broader based than I would like, and we continue to see leveling-off or falling price numbers only in the forecast. I recognize that will continue to be the case for some time even in the best of circumstances, but I am concerned that we may not face the best of circumstances. Geopolitical events of all sorts and global demand continue to put pressure on input prices. Productivity growth is likely slower, and economic activity may not wane enough to reduce resource pressures. As time goes by and outsized inflation growth continues, one can imagine a sense of inflation complacency growing. In that regard, as I noted earlier, I found the regional anecdotes about making price increases stick of some concern.

I should note here that my own board of directors in a telephone meeting just yesterday indicated concern about the ongoing strength of the economy and voted to maintain the current primary credit rate. I myself worry about overdoing the tightening process, but as I told them, I don't think we're at risk of that at present. Given the pace of inflation and given financial market activity, real rates have, in fact, gone down not up, leaving policy and overall financial conditions more accommodative than before our last increase. In sum, I continue to be a bit less worried about variations in the cycle and more worried about the medium-term prospects for inflation.

CHAIRMAN BERNANKE. Thank you. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. In our last meeting I reported that, while our Southeast economy still seemed reasonably solid, we were beginning to pick up anecdotal signs that activity might be slowing. Well, that sluggishness is now gradually showing up in the data as well. The slowing is perhaps most noticeable in our labor markets. Although we are still hearing that businesses in some sectors are having problems finding workers, especially in areas such as construction, accounting, and housekeeping, payroll employment figures for June in our states were disappointing. They showed seasonally adjusted contraction with absolute declines reported in Georgia, Tennessee, and Mississippi and less-than-expected job growth in Florida. Employers seem to be trying their best to hold the line on staffing, given the sense that they have of a slowing in the pace of growth and an uncertain outlook.

Manufacturing activity in our region is mixed. Consumer spending remains softer than earlier in the year, and the tourism outlook is reported to be guardedly optimistic. The bright spot in some ways is the Gulf Coast outside New Orleans, where the demand for most construction materials and labor and for replacement household and personal goods is strong; but that pocket of elevated spending is not enough to offset the sluggishness elsewhere. The big semiannual apparel and gift mart show in Atlanta, where buyers just came to place their major orders for expected year-end holiday sales, was reported to have been slow.

The regional bankers are reporting slowing in loan demand, particularly in the consumer housing sectors. However, the experience in C&I lending is more mixed. At the same time, credit quality, in the words of two bankers with whom we talked, was “unsustainably” or “embarrassingly” good. Banks are also pulling back on their lending into the softening housing market. Our data indicate that single-family construction remained relatively strong in the

District. Home sales have slowed, and there now have been sharp corrections in some markets, especially coastal Florida.

Perhaps the most-talked-about new worry in our region, and something I mentioned for the first time at our last meeting, is the growing problem of obtaining affordable wind, flood, and related insurance in our coastal areas, resulting from the huge losses incurred by insurance companies from hurricanes in recent years. Some carriers have quit offering coverage at any price, and costs of policies that are available have increased at extraordinary rates. That problem is affecting residential construction and sales and causing some businesses to pull up stakes and move elsewhere. Together, the various developments that I have just ticked off have taken considerable momentum out of the strong economic growth and outlook we were seeing in our region earlier in the year.

Our sense of what's happening at the national level is much the same. It now seems reasonably clear that we have settled into a pattern of slower and probably subpar growth. We saw evidence of that in the second-quarter GDP data and in the markedly slower employment gains in recent months. The several models that our Atlanta staff now employs to forecast real growth are suggesting somewhat slower growth in the 2½ percent to 3 percent range as being most likely over the second half of this year and through 2007.

Getting a good handle on the inflation outlook is a bit harder. Our most recent Atlanta modeling work produces a somewhat encouraging inflation path over the next 18 months, which suggests that core inflation should stop its upward drift and gradually begin to move back toward 2 percent. That optimistic outlook is consistent with the most likely path laid out in the Greenbook and with the central tendency of the forecasts we all submitted for the recent congressional testimony. At the same time, even those optimistic forecasts do not seem to indicate that core inflation is likely to move comfortably to within the ranges many of us have indicated we would like eventually to see.

Of course, these encouraging longer-term or medium-term, as some have been calling it, outlooks are very much at odds with the discouraging headline numbers and the increasingly higher core inflation readings in recent months. There seems to be good reason to expect that some of the coming near-term inflation data could well be disappointing before we begin to see the expected improvement, and these current data help to shape inflation expectations. In one of our recent briefings, an economist humbly observed that, despite all the work that has been done and continues to be done in the profession, our models for forecasting inflation are still less than stellar as judged by past experience. So we go into the policy discussion with some encouraging inflation forecasts but having to acknowledge wide error bands and considerable uncertainty around those forecasts. I look forward, I think, to an interesting but probably difficult policy discussion. [Laughter] Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. My outlook hasn't changed very much since last spring, when I was contemplating the not-so-welcome cycle of slowdown in economic activity and some persistence in both headline and core inflation due to the lingering effects of large energy-price increases. In fact, the Greenbook projections for real GDP now reflect something close to the pessimistic end of where I thought things could be heading. The difference is that I have been thinking more of a cyclical slowdown and not so much of a slowdown in demand and supply, as reflected in the Greenbook baseline. The possibility that slack might not be widening as economic growth moves down puts the recent inflation numbers in a particularly bad light.

I have been especially concerned about how broadly based the inflationary pressures appear to be. When you take energy components out of the CPI and you look at the median that Richard was referring to earlier, about 67 percent of the expenditure-weighted items in the CPI increased at an annual rate of 3 percent or more in June, which is about the same share that we have seen since March. As Richard mentioned, the PCE statistics yield basically the same results.

In Procter & Gamble's most recent earnings report, the company attributed its good earnings performance partly to the ability to pass on higher costs through to product prices, and I am hearing similar remarks about pricing power from our directors and District business contacts. Although my business contacts have been reporting some ability to pass on price increases now at the retail level, where in the past they were saying that it was very difficult to go beyond intermediate goods, they're not so sure that they will get more than one-time catch-up adjustments. Most of my business contacts have not expressed concerns about an elevation in the long-term inflation trend.

Nevertheless, I think there are clearly reasons to be worried about the risk of inflationary pressures intensifying over the balance of the projection period. I also think that there is a risk that we're not going to see as much slack as is embedded in the Greenbook baseline. As in many other parts of the country, activity in the housing sector is slowing in the Midwest, particularly in the Fourth District, and the housing situation in the Fourth District could never be characterized as bubbly or frothy. Some of the veteran Realtors in my District with whom I have been talking are saying that this housing market is the worst that they can recall. Comments like these, although they are selected, do suggest some more uncertain prospects for the housing sector. My directors and business contacts have also been sounding a bit more cautious about the outlook for their sales, but at the same time their capital spending plans appear to be intact. They remain vocal about the ability to get productivity gains, and they remain disciplined about their hiring plans. So as I contemplate the weaker spending track that's forecast in the Greenbook, I'm inclined to attribute more of it to the demand side of the economy than to the supply side. That is, I am expecting the Greenbook's call for moderation in economic growth to result in a little more slack than appears in the Greenbook's baseline.

In a qualitative sense, my outlook carries lower inflationary pressure than the Greenbook baseline and thus is similar in spirit to the "lower NAIRU" alternative scenario. Separating the cyclical and structural performance of the economy, of course, is a real challenge, and it is natural, I think, to feel unsure about the real-time estimates and projection of slack. If the slower growth of potential output in the Greenbook baseline is accurate, it raises the possibility that the equilibrium real interest rate may be lower than it was in the last half of the 1990s. In summary, Mr. Chairman, I still think there are risks to both of our objectives. Thank you.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The Fifth District's economy remains generally strong, though overall growth appears to have moderated in recent weeks. Retail sales have been lackluster, especially for big-ticket items. Manufacturing shipments and new orders picked up in July, however, and our early readings for August are even stronger in suggesting additional momentum going forward. District labor markets remain tight, with workers in some skill categories hard to find in urban areas and temporary workers in demand. The housing market continues to slow generally, although markets differ significantly across our District. Current and expected price trend measures remain very elevated, according to our surveys, as they have been for most of the year.

Turning to the national economy, I focused at our last two meetings on my concerns about the deteriorating outlook for inflation, and the news over the intermeeting period has heightened those concerns. But today I think it is important that we also assess carefully the outlook for output and employment. I'm pretty sure that I can safely do so without danger of being viewed as an output nutter. [Laughter]

GDP growth has been choppy in recent quarters; but over the past year and a half, output has been growing at about 3½ percent. You get the same 3½ percent growth rate if you average over the past three and a half years. We have substantially reduced the overhang of underutilized resources over that period. Employment has grown about 1½ percent a year, and the labor force has grown at just a little over 1 percent. I think the evidence is now fairly persuasive that resources are approximately fully utilized in the sense that significant amounts of idle labor or capital do not seem to be awaiting the return of better times.

What sorts of growth rates for output or employment are sustainable over the next two years? The labor force appears likely to grow at about 1 percent—that is, about 110,000 jobs per month. Labor productivity has been trending around 2½ percent over the past couple of years, but I would be a bit more conservative going forward and expect about 2¼ percent per year, closer to the long-run average. As a result, it seems reasonable to put the center point of an estimate of a sustainable real growth rate at about 3¼ percent, with perhaps some extra above that if you're more optimistic about productivity growth.

Is this trend our best near-term forecast? Several factors could contribute to weaker real growth. Residential investment will contract in the coming quarters as the housing market cools, and lower average housing-price appreciation will reduce household wealth gains and damp consumption growth. The upward sweep in energy prices has taken a bite out of real disposable income as well, but I would expect real household spending to track real household income going forward because both the housing-price adjustment and the energy-price run-up, so far at least, look more like one-time reductions in household wealth and income and not like sources of ongoing erosion extending out more than a year. So I think it is reasonable to expect consumption to grow at close to 3 percent, down a bit from the average of 3½ percent over the past several years.

Other factors seem likely to bolster growth. Business fixed investment spending has been expanding quite strongly in this recovery. It is up at an annual rate of close to 7 percent since the beginning of 2003, despite the sluggishness of structures until this year. In the second quarter, BFI was up 6.8 percent year-over-year, and the most recent high-frequency indicators remain on track. BFI spending as a share of GDP is still quite low by historical standards; and as the Greenbook points out, the fundamentals—business balance sheets and output growth—look quite solid. So it seems reasonable to expect business investment to continue to expand at a rate close to 7 percent.

Putting everything together, I expect growth over the next year and a half to be just under 3 percent, or just more than ¼ percentage point below potential. The Greenbook forecast is weaker—GDP growth at about 2¼ percent for the next six quarters—mainly because the Board staff sees lower business investment spending and a pronounced reversal in the household saving rate.

I think that a healthy respect for the uncertainty involved suggests that reasonable confidence intervals around each of these forecasts—the Greenbook's and my own and the others I've heard today, for that matter—would include all the other point estimates and, more important, would include the possibility that growth proceeds at potential over the forecast period and beyond. So though it is reasonable to expect growth at or less than potential in the near term, my sense is that it's hard to be too certain that it will be much below for long.

As I said at the outset, the inflation picture has only worsened. The surge in core inflation that began in March has continued into June. The monthly pattern—3.7 percent in March at an annual rate, 2.7 in April, 2.8 in May, and 2.9 in June—makes this episode look less and less like a temporary bulge and more and more like a sustained increase. It is worth noting that the current acceleration in core inflation is broadly based, as the Greenbook emphasizes and President Poole ably articulated, and not attributable to any narrow set of special factors.

The annual revisions to the national income and product accounts once again raised inflation for past years, although not that much this time, as President Yellen noted. It now appears that year-over-year core PCE inflation has exceeded 2 percent every month since April 2004. Perhaps the most striking change in the annual revisions, however, was in wages and salaries. The puzzle of compensation growth bulging in 2005 and slowing in 2006 is now gone, and it is now clear that compensation is on a broad upswing. The Board staff estimates that nonfarm business compensation per hour accelerated from a trend around 4 percent to something over 5½ percent. In fact, 5.4 percent was today's release. Unit labor costs have deteriorated accordingly and now show an annual rate of increase of 4.2 percent in the second quarter, according to today's release, and they are up 3.2 percent year over year. Before the NIPA revisions, the behavior of unit labor costs suggested that the current increase in inflation was not being incorporated into nominal wage compensation, but the labor cost data now show exactly the opposite—that the acceleration of inflation in recent months has induced a broad acceleration in nominal wages.

I find it hard to be confident that a surge in unit labor costs is likely to be absorbed by falling markups. Measured markups have been trending up for some time, and I think they still do after the revision. Our economic understanding of the determination of markups, especially at the macroeconomic level, is still quite limited. In many models, the markup is entirely a real phenomenon and thus would be invariant with respect to purely nominal accelerations in costs. The main exceptions are the sticky-price models, but these don't provide much comfort because in them a high markup is a forecast of accelerating nominal marginal cost—that is to say, an upswing in inflation. So I don't take much comfort from the high level of markups.

Combining the growth and inflation outlooks, it is worth thinking carefully about the extent to which we can expect slowing growth to bring inflation down. There have been a number of skeptical comments about that hypothesis around the table today. The relationship between output gaps and inflation is quite tenuous, as the staff rightly emphasizes whenever the subject comes up. Empirically, the ability to discover this relationship relies heavily on recessions and, thus, is much less reliable as an indicator of the effects on inflation of a small widening of the gap. Indeed, at our last meeting and again today, David Wilcox characterized the effect of the expected path of the output gap on inflation over the forecast period as tiny. The combination of uncertainty about the relationship between output gaps and inflation and the uncertainty about the degree to which growth is likely to fall short of potential should, I think, leave us deeply skeptical about whether we can rely on expected moderation in growth to bring inflation down. It is unfortunate that so many commentators placed so much weight on that in response to our last statement.

Let me add a comment or two about President Yellen's most excellent statement. I think the insights she articulated about backward-looking inflation models breaking down and the different inflation dynamics in forward-looking models is very important for our policy deliberations. Her staff apparently has documented that inflation now looks more as though it's fluctuating around a sample average—I'll say, a trend—and less as though it's driven by output gap measures. She concludes that we may see inflation fall faster than the Greenbook forecasts do.

I want to register a couple of observations. The first is that, with forward-looking expectations, inflation behavior is far more sensitive to changes in the public's beliefs about our behavior than in models in which inflation expectations formation is backward looking. I'd register just the possibility that the long-run expected inflation that the public believes applies has been drifting around and may, in fact, account for some of the swings of measured inflation around sample averages. Finally, certainly taking the point of view that inflation expectations are formed in a forward-looking manner makes more likely the possibility that inflation will come down faster than the Greenbook states. But with inflation looking forward, it becomes our responsibility to bring that about. So that happy outcome could require our action and our strong communication, but I would welcome inspecting, if I could, the work of President Yellen's staff, and I welcome her contribution.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Good morning. Thank you, Mr. Chairman. It's a pleasure to be here today at my first meeting. Many people around the table I've known for many, many years. Others I don't know so well, but I'm looking forward to getting to know you better. I realize that as the new kid on the block, so to speak, I have a lot to learn. I've been on the job one week today, and that realization has been driven home to me in the past week quite amply by the fact that I've struggled to prepare for this meeting. I have to confess that it did occur to me at a couple of points that maybe my start date should have been moved to August 15. [Laughter] Maybe that was a failure of rational expectations or maybe just a simple forecast error—I'm not sure yet. Nonetheless, I really am honored to be here and to be a part of this group, and I'm looking forward to working with all of you.

Economic activity in the Third District continues to expand at a moderate pace, albeit somewhat more slowly than earlier in the year. Of course, this was in line with expectations in previous reports by Bill Stone to you. Regional manufacturing activity expanded in July. Our business outlook survey's index of general activity fell to 6 in July, down from 13 in June, and the indexes of new orders and shipments also softened. But the levels of these indicators continue to point to expansion in terms of manufacturing in the region and manufacturers' expectations of future activity.

Conditions in our construction sector are similar to what other people have been reporting. Nonresidential construction continues to strengthen in our District. Bankers are reporting increased strength in commercial real estate lending. Office vacancy rates have been edging down, and rents have been moving up. Our business contacts expect those trends to continue. In contrast, as in much of the nation, residential construction and home sales are down. Residential mortgage lending has slowed considerably, although home equity lending has been quite strong. Realtors report that the inventory of homes for sale is at the highest level they've seen in a number of years; they also report that prices are higher than they were last year, but the rate of appreciation tends to be softening. Thus far the slowing in the region's residential housing sector seems to have been an orderly one.

Retailers report a firming of sales in general merchandise in June and July, with sales at stores specializing in high-end merchandise being stronger than those at the lower end.

Manufacturers' incentives have helped boost auto sales in July in the region, but dealers tell us that inventories remain above their desired levels.

Payroll employment in our three states has been expanding at a somewhat slower pace than in the nation as a whole, but that's not atypical of the region. The unemployment rate has edged down. In June, it was 4.7 percent. In most of the District's labor markets, unemployment is lower now than it was a year ago. Our business contacts continue to report difficulty in filling positions. There has been some relief this summer with the influx of college students, but that cushion is about to end. It has been particularly hard in the District for firms to fill professional and managerial positions. Firms have received a good number of applications, but many of the applicants are unqualified. Consequently, salaries for these positions have risen more than others. Our manufacturers report that recent wage increases in the region are higher than they were last year. This is consistent with the employment cost index, which shows stronger compensation growth in the Northeast than in other parts of the nation. On balance, the regional conditions and outlook continue to be positive. The rate of expansion in the second half of the year is likely to be somewhat slower than in the first half; but, again, that was expected.

I'm more concerned about signs of continued and growing price pressures in the District. Consumer prices appear to be rising at a faster pace in the Philadelphia region than in the nation as a whole. One factor contributing to the faster pace has been the increase in housing costs in metropolitan Philadelphia, but that may prove to be temporary as housing prices stabilize. Nonetheless, broad-based cost pressures persist in most sectors of the region. The indexes of both prices paid and prices received in our manufacturing survey have increased in July, and both are at very high levels. Business contacts say that price pressures continue to be one of their major concerns.

I would characterize the national economy in a somewhat similar way. That is, right now I tend to be more concerned about inflation than I am about growth. I don't view the second-quarter slowdown as necessarily a precursor to a significant weakening of the economy going forward. The below-trend growth in the second quarter was widely anticipated, and averaging over the first two quarters, as several people have done, output still grew at over 4 percent in the first two quarters. The slowdown in residential investment was expected, and much of the slowdown in consumer spending was due to auto sales, which are volatile and which had grown very strongly in the first quarter and considerably less in the second.

One surprise, however, did occur in the second-quarter numbers. We expected business investment in equipment and software to slow last quarter from its very robust pace in the first quarter, but we didn't expect an outright decline. About half that swing, it turns out, reflects the timing of business purchases, particularly of transportation and autos, so the weakness in investment may be more about timing than it is about trend. Indeed, as has been pointed out, corporate profits remain high, and capacity utilization rates remain high, and these data continue to point to the underlying strength in business investment.

The July employment numbers released on Friday did little to change my view of the economy. Employment continues to grow at a reasonable pace, although somewhat slower than earlier in the year. In July, employment in the private sector expanded at its fastest pace since March. Although the number was not large, the trend was at least mildly encouraging. Employment based on the household survey fell. The unemployment rate increased 0.2 percent, but household employment has been volatile. The decline of 34,000 jobs in July followed a gain of 387,000 jobs in the household survey in June. If we abstract from the month-to-month volatility in these numbers, the unemployment rate remains low for the first half of the year at about 4.7 percent.

At this point, I believe the economic indicators are consistent with sustained real growth near trend, as many people have suggested. The benchmark GDP revisions suggest that trend might be a tad lower than we thought, but nonetheless I think the risks to growth seem at least roughly balanced.

The inflation picture, however, has not improved. Despite a slowing economy, price increases have been accelerating. The increases have been broadly based, as has been pointed out by Bill Poole and others. They are no longer confined to energy and other commodities. Indeed, in June the CPI rose less than did the CPI excluding energy. Core inflation is above the range I consider to be consistent with price stability, and to my mind, inflation risks remain tilted to the upside. The Greenbook's baseline forecast has core inflation decelerating over the next year, but the staff has been marking up its forecasted path of inflation over time as the acceleration in inflation has persisted. Even with the projected deceleration, the baseline forecast has core PCE inflation remaining above 2 percent through 2007.

Given this persistence in inflation, unacceptably high inflation seems likely to be around for a while. A year ago I wouldn't have said that. In fact, I was in the camp that thought it was mostly a relative price phenomenon, but that position has become less compelling to me over the past year. The benchmark revisions to the GDP report show that both compensation per hour and unit labor costs have been trending up, not down as earlier data suggested. Energy-price increases have not abated, suggesting that we are likely to see continued pass-through to core inflation, perhaps for some time. Although the Committee has brought the fed funds rate up appreciably from historically low levels, real interest rates to my mind are not high. I don't view monetary policy as particularly restrictive at this point. Thus, I have to put some weight on the Greenbook's alternative scenario of persistently high inflation, and that leads to particularly poor outcomes. Even if I accept the baseline forecast as my point forecast, the fact that inflation remains at a level above the range consistent with price stability for a considerable period is troubling.

I am comforted by the fact that medium- and longer-term inflation expectations have remained relatively stable despite the acceleration in inflation. That's a testament to the credibility of the Fed in the marketplace—that it will keep inflation low. But how reasonable is it to think that inflation expectations will remain unchanged? By allowing inflation to remain at a high level for a time—we are, after all, as several people have pointed out, in the third year of core inflation running above 2 percent—do we risk sending the message that we are willing to tolerate higher inflation? If so, will expectations adjust accordingly? As the model simulations of optimal policy paths and outcomes in chart 7 of the Bluebook indicate, it's very costly to get inflation back down once it has been above our objective, particularly if expectations are allowed to increase. I believe that monetary policy has an important role to play in ensuring that the recent high inflation readings do not raise longer-term inflation expectations. Thank you.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. As has been observed, growth moderated in the second quarter largely as anticipated. The economy is perhaps returning to a sustainable pace of growth—one, I would add, that may be above the Greenbook forecast for next year. As I thought about the Greenbook, much of it seemed plausible to me; but our VAR models provide somewhat more rapid growth next year. When I step back and think about various components of aggregate demand, it seems to me that we might get a bit more out of business investment in equipment and software and net exports, and I think the supply side of the economy is sufficiently flexible to accommodate that.

With regard to inflation and its prospects, little has changed from the last meeting in my opinion, and I doubt much will change in the near term, or at least not much will change for the better in the near term. This suggests to me that we should be prepared to see core inflation running on a year-over-year basis near or above 2½ percent for several more months, perhaps several more quarters. I haven't heard anything from the business people with whom I've been in contact that suggests that a moderation of inflation is at hand or that aggregate demand, demand for goods and services, is slowing in an unanticipated way, except for what is turning out to be a pretty mediocre tourism season in our District.

One distinctly positive development—and I think Charlie just referred to this—has been the stability of inflation expectations in the face of incoming information on inflation that might have led to some upward revision in those expectations. The fact that expectations have remained well anchored so far is something that looks positive to me.

Overall, as I try to assess the risks, it seems to me that the near-term inflation risks are tilted to the upside even though I continue to expect core inflation to ease back down in the longer term. As for the risks associated with growth, I think here uncertainty has increased. However, against the background of the latest Greenbook forecast, I think maybe the risks to growth are also tilted to the upside. Only I wouldn't use the term "risks"—I would consider that to be a positive development if in fact it occurred.

CHAIRMAN BERNANKE. President Hoenig.

MR. HOENIG. Mr. Chairman, thank you. Obviously we are dealing with a difficult set of circumstances. We have information that the growth of the economy is slowing and inflation is rising, not something we particularly like to see. We have seen slowing consumption nationally, and certainly our District has seen some of it. The one exception is in some areas where we have an energy boom going on, which is not necessarily advantageous to other parts of the country. We also have slowing residential investment in our District. Inventories are building up rapidly, both in the eastern side of the District and in the Denver western side, and we have some pretty sharp increases in bankruptcy levels in the Denver area. The shocks of energy costs have affected consumption, and I think that effect will carry through. We have been more optimistic about manufacturing. Even though our surveys have shown some slowdown recently, the six-months-ahead forecasts are still fairly optimistic.

There is no denying that the inflation level is up, and I think that increase reflects past policy accommodation that is still in play. I also think that some of the supply shocks are having their effects, and the shocks themselves are continuing forward. That situation is being aggravated a bit for our District, and perhaps will be even more for the nation, by the drought that we are experiencing, which is reducing some of the crop output in the area. The outlook, therefore, is not particularly encouraging. I think consumption will show some further slowing going forward, especially as we see further shocks in the economy related to energy. Some of the wealth effects related to the housing industry will also affect consumption going forward. The outlook in terms of business fixed investment is unclear. BFI has been pretty good. The outlook seems fairly good right now, but it is slowing to some degree. Policy is moderately, not significantly, restrictive, but it seems to be working its way through fairly slowly.

While these factors are in place, we worry about whether the real rate will decline, which I think Mike Moskow mentioned. I also worry that the decline will affect inflation expectations and cause them to shift—that is an upside risk to the economy in terms of the inflation that I do worry about. Still, I suggest that we are moving as expected. We have some short-term inflationary pressures that are going to continue, that are "baked in the cake," as they say. And I do worry that—as we move forward and if the economy slows, as I suspect it will—our big challenge will be not to ease too soon. Thank you.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Thank you, Mr. Chairman. I want to offer just a few anecdotes, starting with Wal-Mart. At the beginning of the year, Wal-Mart's plan for same-store sales was for growth of 3 percent to 5 percent, but growth has run persistently below that since Easter. July came in at 2.6 percent. They had expected a range of 1 to 3 percent. However, I think we have to be a little careful in interpreting July data in general because it was unusually hot over much of the country, and Wal-Mart says that they particularly sold a lot of what they call "hot weather goods," like air conditioners and fans. My contact says that higher-priced items with higher margins are generally doing better than the lower-priced goods. He is still seeing pressures on the lower-income shoppers at Wal-Mart. Food inflation is actually coming down a bit: It is now below 1 percent. My contact observed that suppliers seem to have paused in taking price increases, but he's not sure whether that's just part of a cycle during the year. He also noted that the rate of price deflation is also less than it was for a number of items—particularly apparel and standard electronics items—that have been deflating for quite a number of years. Those prices are still declining but not as rapidly as before.

I had two readings from the transportation industry suggesting that July was surprisingly weak. UPS Express volume in July came in 3 percent to 4 percent below plan, and a large trucking company said that the July truck volume was flat year over year and the weakness was pretty much spread over all parts of the country, although more pronounced in the upper

Midwest. It seems to be broadly based in terms of product category. He said that in the trucking industry, or at least in his firm, they are increasingly nervous about recession.

UPS noted that there is potential for disruption. Their pilots' union is currently in a ratification vote, which is supposed to be complete by September 1. There's a great deal of opposition within the union and some genuine possibility that the contract will be voted down, with associated job actions and disruption of various sorts. My FedEx contact said he really had nothing new, and he didn't even want to talk about that. [Laughter]

Let me make a comment about the national economy. I want to talk about it in terms of the risks we face and to use a Phillips curve diagram as a device. We'll center the axes on the Greenbook forecast. One of the quadrants here has higher growth and lower inflation than forecast. I think we're not very likely to be in that quadrant—it's not impossible, but I don't think it's probable. So let's talk about the other three quadrants. One of them has good growth and higher inflation. We could end up in that quadrant, and that would just mean that we're going to have the problem of dealing with the inflation over the longer haul even though our immediate future might not have a growth complication. Quite frankly, I think we're most likely going to be dealing with one of the other two quadrants. One of them has lower growth with declining inflation. I think the inflation pressures are pretty persistent and sustained, so I think we're actually most likely going to end up in the very unfortunate quadrant where we have sustained inflation pressures running at the Greenbook forecast rate or above and growth running at that rate or lower. That situation is going to be very uncomfortable for us, but we're going to have to be ready to deal with it. Thank you.

CHAIRMAN BERNANKE. Thank you. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. Growth has moderated, but the economy still seems, to us at least, likely to grow at a reasonably good pace over the forecast period, somewhere in the vicinity of 3 percent. We expect core inflation to moderate gradually from current levels, declining to around 2 percent in ’07. This forecast assumes that monetary policy follows a path fairly close to what’s in the market and in the Greenbook.

The key difference between our view of the outlook and that of the Greenbook forecast is in the strength of demand growth relative to potential next year. We have reduced a bit our estimate of potential and also of actual growth, but we still expect the economy to expand at a rate close to potential. This is a very favorable forecast, and we have to recognize, of course, that the economy is going through a set of extremely complicated transitions, including a large, adverse, sustained relative price shock of uncertain duration and a substantial adjustment in asset prices that is now concentrated in housing. Our capacity to anticipate the evolution of these forces and to assess their effect on growth and inflation is, of course, very limited. The forces that now appear to be working on the economy still present the unpleasant combination of upside risk to inflation and downside risk to growth; but for the moment we believe that the former, the possibility that our forecast is too optimistic on inflation, remains the predominant risk.

I have a few points on the growth outlook. The economy has clearly slowed, and the composition of growth within the United States and here relative to the rest of the world has changed. These changes were inevitable, and if they continue to occur smoothly, they seem desirable and necessary. As a share of aggregate demand within the United States, residential investment had to contract and consumption had to slow. And U.S. domestic demand had to slow relative to domestic demand growth in the rest of the world. The key issue we face is judging whether we have significantly more weakness ahead of us than we are now expecting. In our view, most signs at present point to fundamentally healthy economic conditions.

The survey-based measures of confidence are holding up okay. Real household income growth seems likely to be good going forward. Businesses have the resources and the motivation to sustain fairly strong rates of investment growth. Structural productivity growth, even post-revision, still seems strong. Inventory levels remain relatively thin, and the tentativeness that characterized much of the expansion in terms of investment and hiring should be a source of some comfort. Global demand is still quite strong, of course, and together these forces will offset part, but not all, of the weakness coming from the adjustment in housing and consumption growth. The principal risk to this outlook for growth lies in the possibility that households will slow consumption more sharply because of rising energy costs, higher interest rates, greater pessimism about future income gains, or the effect of the housing adjustment on perceived wealth.

Financial markets are showing a little more concern about future growth, but not a lot. This concern is most evident in the greater inversion in the yield curve that has emerged at the one-year to two-year horizon. I think you can see in the market some moderation of exuberance in credit markets, but just a little. Overall, the markets seem to reflect a reasonably favorable view of future growth prospects.

On the inflation side, as I said, we expect core inflation to moderate, not quickly and not dramatically but by enough and soon enough to bring core PCE inflation down to just below 2 percent over the next 18 months. The issue we face is not so much about the acceleration in core inflation that occurred in late 2003 and 2004. After that acceleration, core inflation was sort of trendless, in the vicinity of 2 percent for much of the two-year period, until the past six months, when we saw this uptick. The real problem we face is assessing the extent to which the very recent acceleration in core inflation reflects transitory factors, such as the indirect effects of energy prices, and the extent to which it may reflect pressures from higher resource utilization and other things less benign and less transitory. Energy pass-through, of course, seems part of it, but probably not all of it. Shelter doesn't account for all of it either. This judgment is critical for us, and we need to be careful that we're not assuming away the more uncomfortable explanation, such as a broader inflationary impulse or a rise in pricing power that could reflect increasing acceptance of higher inflation.

How confident can we be that the pressures that have induced this rise in core inflation will moderate sufficiently to bring down the rate of increase in core PCE prices to the vicinity of 2 percent or below? Reasonably confident, I think. With the economy growing at or slightly below trend, with growth of unit labor costs peaking and decelerating a bit as the Greenbook forecast anticipates, with inflation expectations moderating at short horizons and pretty stable at longer-run horizons, with energy prices flattening out, and with the dollar falling only a little, this forecast seems reasonable. But note the number of assumptions and conditions this forecast depends on. Also, the expected path for inflation implies only a very gradual moderation and a period of sustained inflation above what is presumed to be consistent with this central bank's long-term preferences. The risks of this forecast, as I said, still seem to lie on the upside. It may be some time before we can be confident that the forces are in place to produce the necessary moderation.

More generally, however, we face the very difficult consequential challenge of trying to figure out the longer-term consequences of having been in an exceptionally long period of exceptionally low real interest rates—both real short rates and forward rates—that were induced by monetary authorities here and around the world. Real short rates now look as though they were perhaps lower relative to the estimates of equilibrium even than we thought. Perhaps more remarkable was the low level of forward real rates during much of our tightening phase. These financial conditions may have produced more inflation momentum than we thought, and this may be the case even though there is some reassurance in the stability of long-term expectations. Those expectations are substantially below the peak in ’04 at the long horizon.

However, the rise in asset prices and residential investment and the leverage caused by this long period of very expansionary monetary policy may lead to a process of adjustment in asset prices that could be more sustained and more damaging in terms of confidence and of demand than we expect. This risk is greater if we end up allowing more inflation than our forecast anticipates, for the required monetary policy response could induce an even sharper adjustment in risk premiums and asset prices. This possibility argues for a lot of humility in judging the appropriateness of the present stance of monetary policy and what will be appropriate over time, and it argues mostly for having as much flexibility as we can going forward, emphasizing that the inflation risks remain the predominant concern of the Committee. Thank you.

CHAIRMAN BERNANKE. Thank you. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. As many of you have remarked, the inflation news over the intermeeting period was not favorable. Core consumer prices continued to run at an elevated level, and the CPI actually came in on the high side of expectations. The shortfall in the PCE that President Yellen referenced was, I think, more of those mysterious nonmarket components. Petroleum prices rose further, implying additional feed-through going forward. Prices of other commodities, as Karen remarked, were on average unchanged to somewhat higher, suggesting not only continuing cost pressures on producers but sustained strength in global demand. Early estimates of unit labor costs for the second half of last year and the first half of this year show a faster increase than had been estimated and anticipated. The compensation data for the early part of this year, in particular, are subject to very large revisions. Even the now-faster growth doesn't necessarily indicate that the economy has been operating beyond its sustainable potential, given the likelihood of some catch-up with past productivity gains, the still quite elevated profit margins, and the moderate increase in the ECI. But at the very least, the unit labor cost story doesn't provide as much comfort about future inflation as it did previously. Largely as a consequence, the staff revised up its inflation forecast for 2006 and 2007, and that response seems reasonable to me.

At the same time, some developments over the intermeeting period help me feel a touch more comfortable, or perhaps a touch less uncomfortable, with the downward trajectory for inflation after the bulge. One of them that a number of you have mentioned from surveys is that the long-term inflation expectations in the market remained stable or even edged down a little despite higher energy prices and, importantly, despite downward revisions to the expected path of monetary policy. If I were forecasting today, I would forecast a slightly higher inflation rate, but I would also forecast a slightly higher unemployment rate than I did before. To be sure, output gaps, as you've mentioned, don't play a large role in determining inflation, but certainly the growth of demand relative to potential has some effect on the competitive conditions that businesses are facing and on their ability to pass through costs.

From the information that we received over the intermeeting period, growth slightly below the growth rate of the economy's potential seems more likely than it seemed a month or so ago, and this would inhibit the pass-through of higher energy and labor costs. Weakness in the housing sector has deepened, and we have not yet seen the full implications of the rise in long-term and short-term interest rates over the first half of the year. This weakness seems to be having an effect on housing prices as well as on activity. The effects of a lower expected trajectory for housing wealth and the increase in interest rates this year haven't begun to show through to consumption, judging from the minus 1½ percent saving rate. The energy-price increases of recent weeks will take something more out of consumption.

Recent data are consistent with a below-trend track for the growth of economic activity: Private domestic final purchases increased at a rate of only 2 percent in the second quarter. The consumption and investment data for late months in the quarter don't suggest an acceleration going into the third quarter. The growth of employment has been running slightly below what would be a steady-state pace if participation were to remain stable, and participation has edged higher. The greater increase than had been anticipated in inventories in the second quarter suggests little impetus or even a small drag from inventory accumulation in the third and fourth quarters. The growth of federal government spending seems to be dropping back a bit as Katrina-related expenditures top out. Moreover, the recent higher rates of core inflation, though they are puzzling to a considerable extent, must reflect some influences that are unlikely to be repeated indefinitely into the future. One of those is the rise in oil and energy prices. The recent rise clearly has been associated with escalating tension in the Mideast and other producing areas, as well as the recent cutback in supply from Alaska. At some point, the risks of supply disruptions, while remaining very high, should level out. As a consequence, so, too, should energy prices, which will reduce core inflation as the feed-through fades.

Another factor boosting inflation in recent months was related to rising rents and, in particular, to an even greater increase in owners' equivalent rent. The staff has assumed that owners' equivalent rent will rise in line with other rents and that both will continue to increase fairly rapidly but less rapidly than they did. That seems reasonable to me, given the increased availability of houses and apartments on the market that would, at some point, seem to limit the rise in rents as well as house prices.

So my conclusion is that the staff forecast of a gradual moderation of core inflation after the second quarter is a reasonable expectation, although I am very worried about upside risks to inflation. The inflation rate looks as though it will end up a tad higher than either the staff or I thought likely at the time of our June meeting. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. I think our decision today is going to be a close call because of the recent information we've gotten both on inflation and on the growth of the economy. We know that, as President Poole and others have mentioned, wage and price inflation has been accelerating and is fairly broadly based. The recent NIPA revisions also concern me because of the faster growth in core PCE prices that those data show. The business surveys, in fact, show that companies feel they have more pricing power than they have had in the past. We know that we are going to have some continuing feed-through of the higher prices of oil. After talking to some folks in the oil industry, I am concerned about the recent Alaska situation. It clearly shows that maintenance of equipment and the efficiency of the operations of some of these companies may be under stress with the high volumes of capacity at which they have been running. We pray that it doesn't extend much further in additional surprises.

What also concerns me about the NIPA revisions are the changes in the productivity numbers. The fact that with the NIPA revisions we are seeing lower productivity and faster-rising labor costs has implications for our forward expectations on inflation. We also see that business investment in equipment and software was much lower. That downward revision worries me because it implies that less capital deepening has occurred, and that would have been a strong base to support productivity going forward. Now we apparently cannot rely on it as a base as much as we could before the revisions.

In terms of the housing markets, the rapid escalation of home sale cancellations clearly has been very surprising. Again, the gross sales figures don't show this, but the information we've got on the cancellations indicates a much more pronounced slowdown than we might have expected. In looking through other housing cycles and in talking to bankers and lenders, one of the good things I find is that the industry learned in the 1980s. Because those in the industry are more sophisticated in the way they manage their land costs and their inventory, I think the length of the cycle is unlikely to be as long. In the 1980s, bankers made plenty of funds available for companies to continue to develop land and to put in infrastructure. When the housing bubble burst, all of a sudden we had unsold housing units. They had to be sold before builders could start building on the developments that had already been laid out, and it took us several years to work through that. This time we don't have the unfinished inventory of developments that we had in the '80s. So I think that the cycle is likely to be much shorter than it was then and that it will put some firmness in that market. At the same time, this is the sector, aside from energy and commodities, that had a very rapid rise in prices, and it's good that we're seeing some correction in those prices right now.

The other good trend that I take comfort in is the one that Dino mentioned earlier—that we're seeing central banks around the world raising rates. When we started raising our rates a couple of years ago, there weren't too many moving at the same time we did. We know that today monetary policy has global effects: Excessive accommodation in some countries clearly can affect investments in other countries. So I think we now have support in what we're doing to remove accommodation. We're seeing that support more broadly across the world; and in the aggregate, then, it will help to moderate inflation in the period going forward. Finally, I'm reminded that we do have long lags in monetary policy, and we still have to see the full impact of what we have already put in train. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. I see it's 11:00, and I'm told that coffee is ready outside. Why don't we take a fifteen-minute break. Thank you.

[Coffee break]

CHAIRMAN BERNANKE. David Wilcox has a couple of comments on the productivity data from this morning.

MR. WILCOX. Thank you, Mr. Chairman. Just very briefly, these data came in, in most respects, pretty close to our expectation. I would note that the productivity figures for the second quarter are built on the output data that were incorporated in last week's advance GDP number. We expect nonfarm business productivity in the second quarter to be revised up. Based on information available today, it would be revised up 0.8 percentage point, to 1.9 percent. Probably because of some fluctuations in hours, the productivity number in Q1 is 0.3 percentage point stronger than we had expected. In Q2, it's 0.3 percentage point weaker. On balance, the profile there looks much as we had expected. Compensation per hour is 0.5 percentage point stronger in Q1 than we had projected and right on our Greenbook projection in Q2.

CHAIRMAN BERNANKE. Thank you. Let's turn now to Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. The Treasury markets have convinced themselves in recent days and weeks of the prospects of lower growth, lower rates, and some degree of comfort with inflation, and they seem to have lurched to that on a somewhat accelerated basis in the past several weeks. But with some degree of humility, I'll say I'm not quite as convinced as they are. I suspect that they may lose some of their conviction if some of the data that we've all talked about this morning around this table come to pass. So we need to be keen in looking at inflation expectations, at the shape of the curve, and at the prices of some of these Treasury securities to evaluate the market reaction to what we do.

I have just a couple of other general comments. We'll have readings on inflation soon, but I'm not persuaded that we will have a good view of how persistent inflation will likely be. I suspect it will continue to trend to the upside and will beg those markets for a further review of the state of inflation expectations. Similarly, I am not sure we're going to have definitive views on growth. I had a lot of discussions with a whole host of folks in the consumer and business sectors. They are hearing, much as we are, top-down estimates for lower growth in the second half, but their own bottom-up analysis doesn't seem to be bearing that out even here in the second quarter. The only thing I'd note at the outset from the BEA revisions is that, though growth has come down somewhat over the historical period, quarter-over-quarter variance seems to be at least as pronounced as it was in the original dataset; so the data are likely to be rather volatile, I would suspect, as we look through the forecast period.

With that in mind, I thought I'd take a couple of minutes looking at growth in the consumer and business sectors and then spend a few moments on inflation. With respect to the consumer sector, I am probably more convinced at this meeting than even before that great tumult is going on below the surface. In discussions with some of the big credit card processors, I asked them to tell me what they're seeing. They're seeing huge changes in categories of purchases and even in the types of purchases if we exclude energy and gas products. In sum, however, consumer spending looked quite strong to most of them through June and, importantly, through the first month of the third quarter. Although they had talked to their boards about lower volume in the second half, they have yet to see it in much of their data across a range of lower-income Americans as well as Americans with higher net worth. They're not seeing much softness at all. The other piece coming out of those discussions is that they had expected to see a ramp-up in delinquencies—again, with much vaunted news of a slowing housing sector, higher energy prices, and a slower second half—and they have not. The news about delinquencies continues to be very encouraging going into the third quarter. It also raises the question of whether or not we're going to see an inflection point. With all the discussions about the slower second half, we would have expected that personal consumption would have shown some more-meaningful effect than the data suggest. So I'm not persuaded that several meetings from now we're going to have this "aha" moment and that we're going to see this inflection point. On the growth front, I still have the view that growth continues to be above the Greenbook projection. But I am more concerned, of course, about inflation.

I have just a couple of other points of interest on the consumer front. The July index of consumer sentiment does not suggest much of a slowdown in consumer confidence, and when I looked at the surveys since our last meeting, I came to a couple of conclusions. When the surveys ask questions such as "How are you doing?" and "What is your personal financial condition?" the numbers tend to go in a rather positive direction. "I'm doing pretty well, not great" is the answer, if you cut through the data. When the surveys ask other questions such as "How is your neighbor doing? or "What is the state of the economy or the state of business conditions?" the answer we're getting is, "Well, my neighbor is having all sorts of troubles." If we're trying to judge the economy by what folks know best of all, I guess I don't see much of a reason to expect that some of the worst-case scenarios will come to pass.

Federal tax receipts, which I mention at most of our meetings, for July showed year-over-year growth of about 13 percent. The gains in wages and salaries implied by these increased tax collections finally make some more sense in light of the recasting of the official data from last week's revisions, with real wages and salaries having risen 3.4 percent over the past year, which is about a six-year high.

Turning now to the business sector, I put myself as probably as confident as most around the table on the state of this sector, though I have heard some talk of a diminution in "animal spirits." But if you look at the data, you see that, as discussed this morning, the ratio of profits to GDP is at a record high. Momentum continues to be quite strong, with credit spreads low, acceleration in business sales, and low ratios of inventories to sales; all these factors seem to speak to some underlying strength.

The manufacturing sector, despite some noisy data on jobs and employment, appears to be in an incredibly strong position. The ISM manufacturing index, PMI, and industrial production, which advanced at an annual rate of about 6.6 percent during the second quarter, are all very positive indicators about the manufacturing sector. We also continue both to hear anecdotes and to see data about real pricing power in that sector, which is good news on the growth front and probably gives us a couple of questions on the inflation front.

Finally, Dino referred at the outset to some of the bottom-up analyst estimates for profits in the second quarter and the second half, and I said a couple of meetings ago that we should really take note of these to see whether they flatten out. They appear to be possibly flattening out a touch, but you have to do quite a bit of work to get there. Second-quarter profits will end up above 15 percent once the S&P companies all report. Some lower earnings guidance is being given over the forecast period; but throughout that period, earnings would still be up 11 percent or so compared with similar quarters last year—all of which is quite encouraging and comes as surprisingly positive news to boards of directors of these companies, who had heard about the slowdown but aren't seeing it so dramatically.

One area about which I spoke earlier was the capital expenditure number in the second quarter. President Plosser probably summarized the point well in explaining that we should probably look through that number because of some volatile transportation-related orders. Moreover, when I look at the second half of this year and at 2007, other data on unfilled orders appear very positive. Pent-up demand for cap-ex should be higher, given that the past three years had growth rates of 6.4 percent rather than the 8.3 percent that we had earlier anticipated. The only other thing I would note about cap-ex is that there seems to be greater dispersion by industry and by sector. Technology and telecom do seem to be more disciplined in this cap-ex wave than maybe many of us, including myself, would have anticipated. I suspect that, with continued talk about the slowdown in the second half, spending on tech and telecom will be bumpy and may drag some of the aggregate cap-ex numbers down substantially. As I look at the business sector, I find myself asking the key question of whether this industrial economy, as robust as I think it is, will boost labor demand and personal income. I suspect the answer to that question is "yes"; but again, it's hard to be too definitive at this point.

On the inflation front, I share the views expressed by most folks around the table of some degree of calmness and pleasure about the stability of inflation expectations. But when I think about what has happened to the bond market, particularly in the past couple of weeks, and the rather robust moves that the bond market made at the end of last week, I could be easily persuaded that those inflation expectations will move against us as data come in between this meeting and the next.

I would probably describe many of these inflation expectations as relatively calm; but if I had to guess, I'd say that they're probably a bit more wobbly than we would like.

Further on the bad news front, and I think President Fisher and President Poole made reference to this, no matter how we slice some of the core PCE data and some of the CPI data, even if we look at things like non-energy services, the trend is not our friend on a three-month or six-month average. Most of us would not expect it to be our friend over the next six months. Again, the question is how persistent the trend is, and I have genuine concerns on that front. As the inflation data are likely to deteriorate, we obviously have to look at a broad range of GDP outcomes for the balance of 2006. In particular, I took note of the Greenbook's simulation of persistent inflation to a 3 percent core, which I would consider a genuine risk, and although the Greenbook simulation suggests that the fed funds rate would need to go only to 5.9 percent, I'm probably more concerned that we might have more work to do if that series of events came to pass.

Finally, let me quickly note the labor compensation front. I believe that many of the gains shown on that front have been quite surprising on the upside. They have been good news for most workers over the past couple of years, and they help explain that conundrum, which we've heard as each of us have sat before this table and been asked on Capitol Hill: How is it that productivity is so remarkably high and compensation so remarkably low? Have the gains to trade and to capital and labor changed? I think these data suggest that they haven't. If, in fact, we do see continued acceleration in compensation gains—even, as the Greenbook suggests, to 5½ percent—I suspect the markets again will look to that and will take it at face value that those gains are likely to be more inflationary than many of us around the table believe. I think that's another concern.

On balance, I'd summarize my own position as being considerably more concerned about the inflation picture than about the growth picture. As Vice Chairman Geithner said, there are confidence intervals around all of these that are hard for us to bang the table in support of. The work that we have from this meeting to the next will become particularly important. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. Thank you very much. As the comments indicate, this is probably the most challenging time that we have had before us in my long history here at the FOMC. [Laughter] The mix of continuing inflation pressures and decelerating growth are providing more concerns on both fronts than I have heard around the table and than I myself have had since I've been here.

First let's think about some of the growth prospects. I broadly share the Vice Chairman's view that the fundamentals are in place for reasonable growth going forward. Certainly there are some risks. But whether we are looking at survey-based measures, at orders and shipments, or at a variety of different things, we don't really see signs of very significant deceleration or contraction. We see more a moderation that would be either in line with the Greenbook or a bit lower than the Greenbook.

Certainly a key risk to growth that a lot of people have discussed is residential investment. If you look at where we are in residential investment, we're back only to mid-2003; 2004 and 2005 were incredibly strong years. So being in 2003 is not that bad. If you look at the graph, residential investment falls off rather precipitously to get us back to 2003 with great rapidity. The question I have is whether it will flatten out or whether it will go down further. The Greenbook forecasts have gradually been moving down and now reflect more downward pressure going forward. I think that we're not seeing the full effects on house prices reflected in the numbers because in the housing market, for reasons I don't think we fully understand, there tend to be queuing rather than just price changes. So it may take a while for the price data to actually reflect the lower effective prices that people are seeing. Obviously house prices will have a potentially important effect on the wealth effect and on consumption down the line, which I think the Greenbook does a good job of putting into place.

Another challenge is elevated prices for energy and commodities. Energy prices, particularly, may be taking a little bite out of people's disposable income. On the other hand, we have been seeing continued strong business fixed investment. A small concern I have is, if we continue to hear about slowing consumption and reports from Wal-Mart and others that retailing is really slowing, why are these businesses producing? Are they investing to produce goods that people will want to buy, or will we see in nine months or a year that maybe some misallocation of resources has occurred and that things aren't as strong as we had thought? There's no particular sign of such misallocation of investment. It just seems that there is a bit of tension between the discussions of continued strength of capital expenditures and the statements of business contacts that they are going to continue to invest even though they see a slowing coming down the line. This is a variation of what Governor Warsh was saying—it's almost as though they are saying that some other sector will have that slowing, not their sector.

In some sense, we should take very cold comfort from the fact that the economy may be slowing. We had quite a discussion about how there's not much of an inflation–output tradeoff, but at least in this period there are real questions of whether you do get much benefit in terms of lower inflation from slower growth. There may be some benefit, but it seems to be attenuated compared with the past. Obviously some of the recent numbers on inflation continue to be worrisome, but fortunately both the survey measures and the market-based measures seem to be reasonably contained looking forward. Survey measures, whether of the man in the street or of the professional forecaster, seem to be quite flat. The TIPS rates for both the near-term forwards and the longer-term forwards have not moved up much. Some of the near-term forwards have moved up a bit, but that doesn't seem surprising given the rise in energy prices that we have seen both from the Middle East and from issues in Alaska.

The real key is looking forward as to what is likely to occur. Are the things we're seeing now transitory factors or persistent factors? That's a very, very difficult call. Reasonable arguments have been made that a number of these factors, particularly with respect to shelter services, are perhaps a bit more short-lived. Shelter services are about 19 percent of core PCE and about 30 percent of core CPI, and obviously they have been leading the band up. As many people have said, we have been seeing price increases in a lot of areas, but I don't put quite as much stock in that because many of the categories in both the PCE and the CPI are arbitrary. The issue is really what the relative size and the relative importance are. Shelter services and owners' equivalent rent, which composes a vast majority of shelter services, are an important piece. I think that there's a reasonable chance that this factor is likely to be transitory, although it may last for several months and possibly quarters. But that is the key question—whether these forces are likely to be transitory or likely to be more persistent.

Coming back to inflation expectations, that's really where I see the markets both registering their view of persistence and telling us something about whether they believe that we will keep inflation well contained. At least so far, those expectations are suggesting that we will. It's extremely important that we maintain those expectations. It's very costly to try to regain credibility if credibility is lost. I think the markets are willing to say, "Well, there may be some transitory inflation, and we're willing to wait and see whether to mark up our longer-term expectations." Certainly once longer-term expectations are marked up, the situation becomes highly problematic because it's very difficult to rein in the changes in expectations, particularly in behavior. So basically I think we need to keep a very, very watchful eye on where expectations are going. I'm heartened that they haven't moved too far despite, as many people have said, high core PCE prices for a number of years and elevated levels in the most recent numbers. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Let me briefly summarize what I've heard and add a few comments. I think one thing we can conclude is that this is not getting any easier. [Laughter] Starting with the data, which are not cooperating, the NIPA revisions show that potential growth may be less than we thought and, therefore, we may have to have more of a slowdown, if we believe in the Phillips curve, to begin to contain inflation. The small bit of comfort I take is that the slowdown in potential and productivity appears to be coming from capital rather than from multifactor productivity; so at least that technological component still seems to be with us.

The question is whether we are, in fact, slowing to potential or to slightly below potential. I agree with most of what I heard around the table, which is that there is evidence of slowing but, except for the residential construction sector, it is not yet at all definitive that we are falling below potential growth rates. For example, the staff estimated that GDP growth in the second quarter was 3 percent. The staff also estimated that the slower rate of job creation we saw in the second quarter is still fairly close to what is needed to keep the unemployment rate constant.

We are certainly seeing areas of strength in the economy, as a number of people noted. That includes the industrial sector—which will grow 0.7 or 0.8 percent, something like that, overall in July—and nonresidential construction, which has been strong enough that so far there has not been a net decline in construction jobs in the United States. So there certainly are some strong elements of the economy.

I'd like to talk about the very important housing sector, in terms not of the expected level but of the variance of our forecast, which I think we must think about given our risk-management approach. At least three dimensions of the housing sector provide significant uncertainty as we look forward. The first is the extent to which sales, starts, and permits will decline. The correction in the housing market so far appears to be fairly substantial. In 2005, we had 1.72 million starts. For June, the number of adjusted permits was 1.45 million. We already have a 15 percent decline in the level of construction. As Governor Kroszner pointed out, the curve doesn't look as though it's flattening out; it looks as though it's heading directly south. We have heard anecdotally that cancellations are up very sharply. Inventories are rising significantly, and I note that, just since the last meeting, the GDP contribution estimated by the staff for housing construction went from minus 0.3 percent to minus 0.6 percent. So there is, I think, a lot of uncertainty about where that sector is going to level out.

Second, associated with that consideration is a lot of uncertainty about housing prices. Again, as Governor Kroszner noted, we don't really have much information on what the "true price" of housing is at this point because of the way this market works: People leave things on the market for a long time; they take them off the market; they provide incentives; and so on. So we don't really see the transaction prices in any kind of quality-adjusted or reliable way for some time after the decline begins. The prices are significant, of course, both because they affect the profitability of future construction and because they are, at this point, an important component of household wealth; we know that these factors are likely to affect spending.

Finally, a third element of uncertainty as we look into the forecast is what I would call parameter risk, which is that the staff assumes that the effect of housing wealth on consumption spending is, through the standard wealth effect, about four cents on the dollar. I happen to think that is a good estimate. I think the econometric calculations are persuasive. Nevertheless, there is the possibility that the effect is somewhat greater, perhaps operating through liquidity effects. There may be buffer stock effects. If people see their equity falling, they may become more cautious about spending in order to avoid eliminating their buffer of reserves. Thus there is the possibility that housing will have a stronger effect on consumption than we now expect.

I don't know what the expected growth rate is. If I had to take a guess, I would say that we're going to be close to or slightly below potential going forward, but I simply want to point out that our forecast may have a higher variance now than it does under normal circumstances.

Let me say just a few words about inflation. I heard a lot of concern about inflation around the table. I certainly share that concern, and I don't expect any near-term improvement, if for no other reason than that these things tend to be highly inertial. I also agree with the general observation that the pickup is fairly broad based, as I discussed in the meeting last time. One indicator of that is the share of goods that have price increases or price increases above a certain level.

I tried a somewhat different exercise, and I didn't do it in any way as an apologist for inflation—I want to be very clear. But I think it's useful to look at inflation from a different approach, which is to ask what share of the inflation acceleration is attributable to different components. So I asked for a look at the past three months versus the past twelve months to examine the acceleration between those two periods. In a sort of growth-accounting exercise, how can we distribute that acceleration among different components?

I have just a few observations from that exercise. First, the shelter component really does play a big role. For example, in this particular calculation, which is somewhat sensitive to sample period, of the 71 basis point increase in the core CPI between twelve months and three months, 48 basis points were associated with the shelter increase. So that component is significant, and our views on where it will go and how that relates to the developments in the housing market need to be thought about. A second observation is that we are seeing energy pass-through, a good example being air fares, which have jumped significantly and which by themselves contribute 19 basis points to the acceleration. So energy pass-through is real. A somewhat more subtle point, which was made in the Greenbook and which I think is interesting, is that there's a little different behavior between inflation in goods and inflation in non-energy, nonshelter services. Inflation in services has been generally flat. In goods, however, we have seen a bit of acceleration, from a negative number in '05 to a slightly positive number in '06. Examples would be the rise in prices in apparel and, more recently, in used cars. In just examining clues, I think that acceleration might say something about international competition, the effects of the declining dollar, and the possibility that import competition has weakened to some extent and is allowing prices of tradable goods to rise a bit more quickly.

One theme that is consistent regarding the energy pass-through and the perhaps slightly greater inflation in tradable goods is that an important component of the inflation is product market tightness as opposed to labor market tightness. That suggests that, as we go forward, we should pay a lot of attention to final demand and consumption and see how they are affecting the product markets. My own guess is that unit labor costs and wages will be somewhat lagging; and I think that, if the product markets slow and the slowing reduces pricing power, as we call it, those effects will ultimately have effects on the markup that will offset some of the wage effects.

So those are just a few observations about the economy. To summarize, I agree with the sentiment around the table that there is a lot of uncertainty going forward, particularly in the housing sector, but that the inflation risks at this point are still dominant and that our policy action and statement should reflect the greater concern with inflation. On the subject of policy, let me now turn to Brian, who will present the policy options.

MR. MADIGAN.[2] As shown in the top panel of exhibit 1, the probability of a 25 basis point firming at this meeting implied by federal funds futures quotes trended down over the intermeeting period. Policy expectations were boosted briefly by higher-than-expected inflation readings, but those increases were more than offset by Federal Reserve policy communications and several economic data releases—most recently, the July employment report—that came in weaker than market participants had anticipated. The pattern of declining expectations of firming at the upcoming meeting stands in sharp contrast to the previous experience in this tightening cycle, in which market expectations of firming generally rose over intermeeting periods, converging to a level close to 100 percent by a day before the FOMC meeting. But the current situation is similar to the previous episodes in that markets arrived at a high degree of certainty about the outcome several days in advance of the meeting.

Still, as shown in the middle left panel, primary dealers responding to the Desk's survey have, since last November, evidenced both increased disagreement among themselves (the light blue bars) and greater uncertainty individually (the dark blue bars) about policy actions to be taken at the next meeting two weeks ahead of that meeting. Presumably these developments reflect a realization that, with policy accommodation essentially removed, policy actions have become less pre-programmed and more dependent on the evolving outlook.

Regarding your statement today, as indicated in the right-hand panel, dealers anticipate language that expresses more conviction that economic growth has moderated, acknowledges the recent elevated inflation readings, expresses concern about inflation risks, and indicates that future policy actions will be dependent on the data. Although dealers expect your statement to cite inflation risks, implying a likelihood of further policy firming, slightly less than half see any further tightening in this cycle, and all of those anticipate at most ¼ point either today or in September. As shown by the black line in the bottom left-hand panel, the peaking of rates implied by fed funds futures at just 5.31 percent suggests that investors see only 1-in-4 odds that you will take another firming step in this cycle. Indeed, looking further ahead, the black line in the middle panel illustrates that market participants continue to anticipate policy easing to commence before long, and their projected downward trajectory for the federal funds rate steepened somewhat over the intermeeting period. Investors seems to remain surprisingly assured in these views: As shown in the right-hand panel, measures of market uncertainty about policy six and twelve months ahead, the black and the blue lines, respectively, have crept higher of late but are quite low by historical standards.

Reflecting our own sense of uncertainty about the Committee's future actions, in the August Bluebook we presented four, rather than the usual three, alternatives for

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

Committee consideration, spanning a fairly wide range of policy approaches: alternatives A and B, which would keep the stance of policy unchanged at this meeting but are distinguished by different risk assessments; and alternatives C and D, which would involve a 25 basis point firming today but are similarly differentiated by their risk assessments.

A case for holding the federal funds rate unchanged today is summarized in the top left-hand panel of exhibit 2. Based on an assumption of an unchanged federal funds rate, the staff forecast is for economic growth to run slightly below the expansion of the economy's potential over the next six quarters. As shown in the top right-hand panel, real GDP growth is projected to average about 2¼ percent over the second half of 2006 and 2007, and the unemployment rate is forecast to creep up to 5¼ percent. The negative output gap that develops by the end of next year is small and exerts only very modest restraint on inflation; but the leveling-out of energy prices that was assumed in the staff forecast has a more noticeable effect, and core PCE inflation in the Greenbook edges down slowly over the forecast period. Should the Committee find this outlook likely and, in the circumstances, acceptable, it might be inclined to maintain its current stance at this meeting.

The model-based estimates of the equilibrium real federal funds rate portrayed in the middle left panel present another perspective that might be seen as arguing for holding steady at this meeting. Over the past two years, seventeen consecutive policy actions have brought the real federal funds rate from a quite low level to the middle of the range of estimates of the equilibrium (shown in red). This configuration might provide some comfort that leaving the stance of policy unchanged for six weeks is unlikely to turn out to be a serious mistake—that is, unless the Committee is particularly concerned that inflation expectations could become unmoored by further bad news on inflation in circumstances in which policy evidently had gone on hold.

Moreover, some monetary policy rules reported in the Bluebook suggest holding policy steady at this meeting. For example, the first-difference rule using an inflation target of 2 percent, which is portrayed to the right, points to only ¼ point of additional policy firming through the end of next year, based on the staff baseline forecast. However, even if the Committee thought that leaving the stance of policy unchanged was appropriate for this meeting, it might—as noted immediately below the panel—continue to see several sources of upside risks to inflation: most notably, high levels of resource utilization, which might be a larger concern now that labor cost pressures look to be greater than previously perceived; elevated energy and other commodity prices; and the potential for further increases in those factors—the latter possibility highlighted by yesterday's news from Alaska. In these circumstances, the Committee might see the language of alternative B, communicating a judgment that "some inflation risks remain" and referencing a potential need to address those risks, as appropriate in conjunction with an unchanged stance of policy.

At the same time, the Committee might perceive emerging downside risks to the economic outlook, as noted in the first bullet in the bottom left-hand panel. Output and employment have decelerated substantially in recent months, and certainly a sharper-than-expected further deceleration cannot be ruled out. In particular, housing may be slowing more quickly than anticipated. The housing slump scenario presented in the Greenbook illustrates the possible consequences of a realization of that risk. Under that scenario, not illustrated in this exhibit, policymakers following the Bluebook's outcome-based rule respond to emerging slack by lowering the federal funds rate to 4¾ percent by the end of next year. Even without particular concerns about such risks, an outlook along the lines of the Greenbook baseline forecast might be consistent with alternative A if policymakers judge such inflation performance to be satisfactory in light of the below-trend projection for output growth, as in the optimal control policy path with an inflation target of 2 percent. Moreover, the Committee's past behavior as captured in the estimated forecast-based rule would, as shown in the bottom right-hand panel, suggest a slight easing of policy, given the staff outlook. In these circumstances, the Committee might find it reasonable to leave the stance of policy unchanged at this meeting and not have any predilection for the likely direction of policy going forward, as in alternative A.

However, as discussed in the top panel of exhibit 3, even if the Committee thought that downside risks to growth were becoming more palpable, it might still wish to firm policy another notch at this meeting. If the Committee saw significant potential for inflation to exceed expectations, it might believe that another 25 basis point increase in the federal funds rate is necessary to balance the risks. Alternatively, the Committee might feel, given the already relatively high level of inflation, that a significant upside surprise to inflation could be quite damaging and would exceed the cost of a downside surprise to growth. If so, the Committee might be willing to tighten policy a bit further to provide more insurance against persistent high inflation. The Committee might also believe that a rate increase today could be a useful signal of its anti-inflationary resolve while, as under alternative C, suggesting that it was not necessarily expecting to firm policy further.

All that said, members may have reservations in current circumstances about suggesting that the risks are balanced, even after the 25 basis point firming of alternative C. Such reservations may motivate the Committee to consider alternative D, discussed in the remainder of your exhibit. Under this alternative, the Committee would both raise the federal funds rate 25 basis points at this meeting and imply that further increases may well be in store. As noted in the middle panel, members might be inclined to adopt alternative D for several reasons. First, the Committee might agree that the staff forecast presents the most likely outcome for the economy and inflation should the federal funds rate be held at its current level over coming quarters, but it may prefer a steeper decline in inflation than in that forecast and be willing to tolerate a slower pace of economic growth to achieve it. Indeed, as reproduced in the bottom left-hand panel, the optimal control simulations presented in chart 7 of the Bluebook suggest that considerable policy firming lies ahead if the Committee wanted to pursue a 1½ percent inflation objective—especially should it seek to attain that rate within a few years. The Committee also might believe that appreciable further policy firming could be in prospect because it does not expect growth to slow as much as the staff expects or because it is concerned that inflation pressures could turn out to be more durable than forecast by the staff, a risk that is illustrated by the "persistent inflation" scenario. As shown by the black line in the bottom right-hand panel, if those incremental inflation pressures were fully anticipated, optimal policy would call for boosting the federal funds rate about 75 basis points above baseline over the next year. In the optimal control case with gradual learning (the dashed red line) or with the empirically estimated rule that reacts only to outcomes (the dashed blue line) the policy response is more drawn out but is eventually of similar dimensions. Should the Committee see a significant risk of persistent inflation pressures along these lines, it may wish to continue to point to upside risks in its announcement if it firms 25 basis points at this meeting, as in alternative D.

Your final exhibit is the version of table 1 that was distributed on Friday. Thank you. That concludes my prepared remarks.

CHAIRMAN BERNANKE. Thank you. Any questions for Brian? President Moskow.

MR. MOSKOW. I have one question about the term "resource utilization." It was in our statement last time, and we took it out of many of the alternatives. I think David mentioned that resource utilization was a bit tighter since our last meeting. I was wondering whether there was a particular reason for taking it out of many of the options that we have to consider here.

MS. MINEHAN. It's in alternative C.

MR. MADIGAN. It is in alternative C, as President Minehan mentions. I think it's simply a question of whether or not the Committee prefers to speak in those terms, whether it would like to mention that factor at this meeting. I don't think the staff has a strong view on whether or not it should be included.

MR. MOSKOW. You do not have a strong view.

MR. MADIGAN. I do not.

MR. MOSKOW. Thank you.

CHAIRMAN BERNANKE. Any other questions? Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I found this a challenging meeting for arriving at a policy conclusion. I certainly agree with many of you that inflation has been running higher than we want for longer than we have wanted, and I actively debated whether we should continue on our tightening path. But in the end, I think there are a number of advantages to keeping policy unchanged but being very careful to talk about the upside risk to inflation that we see. One of those advantages is that the staff may actually be right. [Laughter] Keeping policy at this rate may be consistent with a moderation of inflation over coming quarters. Even if inflation doesn't moderate quite as fast as some of us might want it to, at least it's on the right, downward, track. In my previous remarks I cited a few things that lead me to think that that's a nontrivial possibility. One is that we have had some evidence that growth is slowing to at least the growth rate of potential and maybe a little below. Second, I do think that some of the influences that we've seen on inflation are transitory, as Governor Kroszner said, and will lessen over time. So I think that keeping the policy rate where it is could well be consistent with making progress toward our objectives of stable prices and maximum employment over time.

Because there's a strong expectation in the market, not 100 percent but around 80 percent, that we won't do anything, I think that, if we keep policy unchanged but continue to express considerable concern about inflation risk, there will be very little market reaction in terms of the expected interest rates further out on the curve. That would imply to me that financial conditions won't be loosened by our keeping policy unchanged. Talking about inflation risks will also preserve our flexibility for the future. We'll let the market know what we're most worried about, and keeping policy unchanged while talking about inflation risks will give us some of that flexibility, which would be very, very important given the uncertainties. There are downside risks to growth as well as the risk that inflation will remain higher. Expressing the concerns about inflation but keeping policy unchanged gets us off what Chairman Bernanke called "the escalator" of 25 basis points a meeting. The situation is such that it would be a good idea to get off that escalator and have that flexibility without signaling that we think we're done but just that we're stopping for today.

In terms of the language of the statement, I'm not sure that alternative B fully expresses the concerns that I heard around the table about inflation risk. President Moskow raised one of those issues—that the alternative B language has nothing about high levels of resource utilization. I think high resource utilization is a risk. One suggestion would be to take the language in alternative C under section 3 and put it in alternative B as perhaps a better expression of what the Committee's concerns are, even while keeping policy unchanged. That would speak to President Moskow's point.

Another word that was dropped from the announcement was "productivity" as damping inflation. I think that's a close call as well. Productivity growth remains very strong. The staff has marked down only a little its expected path of productivity, which remains pretty high compared with history. At the same time, with compensation increasing, labor costs are not really holding down inflation and aren't expected to hold it down in the future. So I could go either way in terms of including a reference to productivity. To me, deleting it would indicate that the unit labor cost path that we had for holding down inflation, which we cited last time, isn't there anymore. But it is a fact that productivity continues to be strong. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Minehan.

MS. MINEHAN. Thank you very much. In my memory, this is about the toughest decision I've ever been a part of at this table. Over the past twelve, thirteen, or so years that I've been here, we haven't faced the combination of potential for slower growth and rising inflation that is certainly not optimal for a central bank, and I really do find this choice to be very difficult along the lines that Don mentioned earlier. Not only do we have to figure out what to do, we have to figure out what to say about it, and that's another complicating factor that has just grown over the years. We began raising interest rates more than two years and 425 basis points ago, but at some point we have to stop or at least pause. What makes this particularly difficult is that price growth is on an uptick and moderation occurs only in projections and not yet in the data.

I think you, Ben, anticipated in one of your earlier testimonies—perhaps in the first one you gave—that we might have to pause in the midst of adverse incoming price data. The thought wasn't well received at the time, as I recall; and now that we're faced with that decision, I find myself uncomfortable. The logic is clear. Inflation data are backward looking, and if we continue to increase rates until incoming information suggests that moderation has occurred, we will undoubtedly overdo the tightening process. But knowing that doesn't make choosing when to stop or even to pause easier when you see, as I do, many risks that both growth and inflation pressures may well be stronger than we now forecast.

In that regard, I think Don and I are probably just micromeasurements away from each other, but I'm sort of on the other side of the line. At the margin I favor increasing the federal funds rate 25 basis points. I believe inflation risks are on the upside and that we're at risk that the current higher rates of inflation will become embedded in business practices and, therefore, get reflected in the market expectations and the expectations that we measure. I don't think we're way behind the curve, but I do think we need to ensure that policy stays less rather than more accommodative. As I noted earlier, if one looks at real interest rates, among other things, financial conditions are more rather than less accommodative than earlier in the summer, and I personally don't think that's consistent with the inflation risks that we face.

Now, Don pointed out that the market is not anticipating this. For some reason or another, the market saw the minutes of our last meeting as very soft. I didn't read them that way. As I recall our discussion at the last meeting, we wanted to give ourselves some flexibility. We would be happy if the market saw a 50-50 chance. Probably reflecting on growth in Q2 that was slower than they expected and on some of the employment data, they've obviously tilted it the other way. I recognize that surprising the market with an increase would be a surprise, [laughter] but I'm not at all sure that's a bad thing, particularly if we are as concerned about inflation around the table as I have heard many of us say.

I recognize that I may be in the minority here. So I would strongly advocate that, if we do talk about pausing, we not suggest to the markets that we think the risks in the economy are balanced. We have to signal clearly that our concerns are on the upside with regard to inflation. If I were a voting member, I'd vote to raise the fed funds rate 25 basis points and to use some form of alternative C, possibly by adjusting the last line to indicate an ongoing concern about inflation but probably not going all the way in the direction of alternative D. I recognize that's not likely to be the consensus here. So then I would strongly favor alternative B in terms of language, with the change that Don just mentioned—taking section 3 and moving it into alternative B—to perhaps give a stronger cast to the overall assessment.

CHAIRMAN BERNANKE. Thank you. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I favor alternative B. It is a tough decision. I personally consider this the wiser course of action, although I think there's no question that a case can be made for raising rates today. Alternative B has several advantages. First, a pause at this meeting will give us a chance to review incoming data over the next six weeks, which isn't that long. We need a chance to better ascertain where the economy is headed and whether the elevated levels of inflation we have seen are persisting.

I think there is significant downside risk to growth, as I mentioned, with housing being a particularly acute example. I think our policies are taking a bite out of economic momentum, and I agree with the analysis that our Chairman gave of at least the downside risk from that source.
I am also disturbed by the trajectory of core inflation over the first half of the year. We'll see two CPI reports and other data by the next meeting, and I think maybe they will help us sort out just how sustained the rise in inflation is truly likely to be.

As I said, there's no doubt in my mind that you can make a good case for raising rates today, and frankly I probably would have ended up favoring that myself, despite the associated risk to growth, if I thought there were an imminent danger of our losing our inflation-fighting credibility with the markets and the general public. But that's not the case at all in my view. The markets don't expect us to raise rates today. Yet inflation expectations are contained. President Lacker has emphasized, and I agree with this, that we cannot take our credibility for granted. Economic models that allow for imperfect credibility show that, when a central bank lacks full credibility, it should respond somewhat more aggressively to inflation than would be optimal if it were completely credible, which is President Lacker's point. I agree with that. But such models don't imply that the central bank should act as if price stability were the sole objective. In the current context, that suggests to me that our credibility is likely to be preserved as long as we continue to respond to economic conditions in a manner that is basically consistent with the pattern that the Committee has established over the past decade, which is similar to, say, a modified version of the Taylor rule. I think that's what we've been doing and essentially should continue to do.

An advantage of alternative B, and I think this is important, is that it does suggest concern with inflation risks. I completely agree that we should express that concern. I expect and I hope that inflation is going to edge down, but I don't have a great deal of confidence in that forecast. I would not want to see a statement suggesting that inflation risks are balanced at the present time; I think it would be misleading. Our statement should, in effect, contain an asymmetric bias toward tightening, and that's true whether we actually raise rates or we don't raise rates. So I would oppose alternatives A and C, and I have no objection to substituting the language from alternative C for that in B as Governor Kohn suggested.

I find it hard to predict what the market reaction is going to be, but the language could end up raising the market's expectations concerning future rates. I would consider that appropriate in light of the fact that standard policy rules and optimal policies reported in the Bluebook do suggest that some further increases in the fed funds rate are likely to be called for in coming months. Our communications should be consistent with that analysis and not indicate that we think we're probably done.

So what's the advantage of alternative B? We can get off the escalator of 25 basis points per meeting, take a pause, and evaluate incoming data without saying that we think we're done with the tightening phase. I do worry that a market psychology has developed that suggests that the minute we stop raising rates we're absolutely finished. In contrast to the Greenbook's trajectory, which is that we're going to stay here for a while and not quickly reverse, markets now apparently anticipate a rather rapid policy reversal. The Greenbook assumption is a more sensible position—it would be a more sensible set of market expectations than the idea that we will have a quick reversal. It would not be unwelcome to me at all to see the market trajectory for the future bounce up.

CHAIRMAN BERNANKE. Thank you. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. With each speaker, this discussion gets more and more interesting. I think it's fair to say that anybody who has been involved in the policymaking process for very long has made a speech or talked publicly about how you come to the meeting with your own views and you're always willing to listen to your colleagues and change your mind. I come probably as close to that phenomenon today as I have in my ten years at the table.

As I listened to the discussion that we had earlier, I guess I was a bit surprised at how great the concern about inflation is. I share it certainly to a great extent. I think that one could, in fact, make a very strong case for a further tightening move today. It seems to me, however, that a tightening move today would have to come with an expression of continuing concern about inflation. That, I think, would imply probably additional tightening moves. If combined with the notion that we're not satisfied that the path we're on will get inflation down well within the range, a tightening move today implies an even greater likelihood of further tightening. I think that kind of path raises the probability that we're going to do too much and stay too long at this. Not to "me too" your comments, but perhaps because I come from the Southeast, where housing is such an important factor—though I'm not sure I understand completely the slowdown in housing and how important that may turn out to be—it is certainly a factor in my mind. I'm willing to give more weight to the optimistic forecast on inflation than it sounds as though some are. I appreciate the pricing power discussion that we've heard around the table, but we have been hearing that for years, and I would hope that the same things that kept that from playing out would continue keeping it from playing out.

Again, one could, in fact, make a very honorable case for a further tightening move today, but that's not where I came in, and that's not where I end up after the discussion. I think in some ways that's a harder conclusion to come to, but I still favor something like alternative B. It would be very good for us to demonstrate the willingness to pause and try to understand the things that are going on a little better than we do. I am willing to trust, perhaps more than some are, that the forecast inflation is going to work its way down. I am less obsessed than some with trying to push it all the way down to 1½ percent in the very short term. I don't think that the world would expect and insist that we do that.

We have enough credibility that we should use a bit of it now to give ourselves time to see where we are. If our forecast that things are going to be okay turns out to be wrong, we can change our position rather quickly and regain whatever loss of credibility somebody thinks we may have incurred. Again, all things considered, I favor no change in policy today and language similar to what's in alternative B. I do not intend to dissent today if the consensus is on the side of tightening, but I have a reasonably strong preference for using this opportunity to take a break in the path we've been on and to try to understand a bit better where we are. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Plosser.

MR. PLOSSER. Gee, what can I say? [Laughter] It's a very difficult call, and indeed, I consider myself really fortunate that I happen to be in on this discussion in my first time. Maybe there are some advantages and disadvantages to that. Maybe I don't carry some of the baggage of what I've said in past meetings because I haven't said anything in past meetings.

I certainly understand and respect the view expressed by those who think we should pause. I think that most people around this table recognize that reasonable people at this stage doing sound economic analysis could come down one way or the other on this. But at this point, my inclination is to favor a 25 basis point increase. Economic growth has slowed from the rapid pace that we've all been talking about. This was expected. I see little reason to think, at least based on what I've heard around the table today, that growth will be considerably below trend in the second half of this year or into '07.

I don't think that holding rates steady at this time will add much to real growth in the near term, nor do I think it's really buying us much insurance against possible future weakness. By the same token, I don't think raising rates 25 basis points is going to have a significant effect on the real economy in the near term either, but it can help reinforce the public's perception of our commitment to price stability. I believe that the Committee has done an outstanding job in maintaining credibility thus far, as evidenced by the fact that we've all noted that longer-term inflationary expectations seem to be well anchored. But longer-term expectations remain contained because the markets and people expect the FOMC to contain actual inflation. Thus, we have to be very careful not to presume that expectations will remain stable independent of our actions today or in subsequent meetings.

If the Committee chooses not to raise rates, does it risk sending the message that we are willing to tolerate inflation above an acceptable level for a significant period of time? If we take the Greenbook's forecast as our point forecast, as has been repeatedly said, it will basically say that we're prepared to tolerate PCE core inflation in excess of 2 percent for four years or perhaps more. Sending that message may generate increased uncertainty about our commitment to low inflation; and if inflation expectations become unhinged as a result, that would lead to some very bad outcomes given the costs imposed on the economy as we strive to regain our credibility. I recognize that a rate increase may come as a surprise to the markets, but I'm less sure that, over a slightly longer period, it won't indeed be good news for the markets and for the economy as a whole.

Thus, as I see it, the argument for favoring another move today is based on a comparison of the potential costs and benefits. Pausing is not free. In my view, pausing today would do little for growth in the near term, nor does it help us on our credibility side. I believe the potential costs of tightening a bit more in terms of bad outcomes for growth and employment are outweighed by the potential costs of not doing so, given where inflation is and where we think it's going. If the economy's growth prospects deteriorate significantly in the coming weeks and months, we clearly have the opportunity to pause or even reduce rates if we think doing so is necessary.

In contrast, I ask myself, "How difficult will it be, if we pause today, to resume rate increases if we need to do so?" This question leads to thinking about the language of the statement. If we choose to pause today, it's important that we send a clear and very strong signal with our statement language that we are committed to price stability. Pointing out that inflation pressures are likely to moderate over time is important if we believe that to be the case because we need to explain why, despite inflation above our comfort zone, we aren't acting. Pointing out that some inflation risks remain would help convey the idea that we may need to act in the future to bring inflation down if our forecasts turn out to be wrong.

So I'd like to close by suggesting that each of us needs to ask ourselves the following questions: What information are we likely to see in the next six weeks that would cause us, if we pause today, to initiate another rate increase in September? What might cause us to cut rates in September? And in the event that data on the real economy are once again a bit muddled, as they were in the past six weeks, and inflation continues unabated, will we find ourselves in the position of inertia that would lead us to continue pausing and then would possibly put us further behind the curve? Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. As I outlined earlier, my sense is that, after having largely eliminated resource underutilization, the economy is now fluctuating around potential. It's attractive in circumstances like this to look back to similar periods for an independent gauge on the appropriate level of real interest rates. From 1995 through 2000, another period of sustained real growth around potential, the real federal funds rate relative to lagged core PCE inflation ranged between 3¼ percent and 5 percent. Right now, the real federal funds rate measured the same way is 2.9 percent. This is handily illustrated, by the way, by the black line in the Bluebook's chart 8. You can do this calculation yourself using any number of alternative methods of estimating inflation expectations, and you always get the same result. The real federal funds rate was never this low between 1995 and 2000.

As an aside, a deeper scientific analysis of the appropriate level of the real interest rate would take into account the insight, dating back at least to Irving Fisher, that it ought to reflect the relative balance of pressures on current versus future resources—intertemporal rates of substitution, in other words. Clearly, any gauge of that is going to relate real rates to current demand relative to the potential for the economy to supply it. So in any statistical relationship estimated over historical data, one is going to uncover a relationship between real rates and output. A monetary policy maker surely can't ignore output, and I wouldn't advocate doing that.

One important difference between now and the late 1990s is that inflation was better behaved then. Inflation fell from just over 2 percent in 1995 to just below 2 percent in 1996, and it stayed in the middle of the 1 to 2 percent range for the rest of that decade. Now, as many have noted, inflation is going in the opposite direction. Briefly, it has been above 2 percent since early '04 and has stepped up significantly since the beginning of the year. The Greenbook is projecting that it will remain above 2¼ percent for a year and a half. It now appears as if an acceleration of wage inflation has begun. Although one might characterize—as many around the table have—inflation expectations as "well contained," I think it's worth questioning whether the level at which expectation measures are contained is that reassuring.

I'll note that the TIPS inflation compensation figures taken from last Friday afternoon show that, adjusted for the carry effect, the ten-year spread is 2.65, the five-year spread five years ahead is 2.7, and the one-year forward rate ending in ten years is 2.89. Adjusting that to get back to core PCE, the first thing you do is take overall to core; the expected value of that is surely around zero going forward. Then, there's this CPI-to-PCE measurement error. If you chart that, you see it has fluctuated a lot. Sure, the historical average is 0.3 percentage point, but it has been negative for several quarters, and just now it has gotten back to 0.2 or 0.3 or so. So let's take 0.4, the Bluebook's adjustment. If you expected long-run inflation expectations to accord with the opinion of some around this table—that they would like to see inflation within a comfort zone between 1 and 2 percent—you'd expect core inflation of 1.5 percent, and you'd expect these inflation expectation measures to be 1.9 percent. If you look at the survey evidence, they are at 2.5, 2.9, and 3.2 percent. So it's not clear that inflation compensation and inflation expectation measures are contained in a way that's consistent with a long-run inflation objective around 1.5 percent. In short, if you sum up all the inflation evidence, take the whole picture together, to my mind it looks a lot as though inflation has become entrenched above 2 percent. In my view, the longer we let it go on, as a previous Chairman and this Chairman have said, the more difficult it will be to correct it.

The worse inflation outlook now indicates that, if anything, the real short rate should be higher than otherwise warranted by real growth considerations. On top of that, there is the Fisher relationship to take into account, as President Moskow pointed out. Since the June meeting, the

Greenbook's one-year-ahead inflation forecast has risen 45 basis points, so a 5¼ percent fed funds rate now corresponds to a 45 basis point lower real rate than it did in June.

As I said earlier, I think a fair scientific appraisal of the evidence should make us deeply skeptical of the notion that moderating growth is going to bring core inflation down without further action on our part to better anchor inflation expectations. Yet a popular perception now is that this hypothesis is the centerpiece of our inflation strategy. I believe we need to take action today to correct that misapprehension.

I do not believe we live in a world in which it is common knowledge that we follow a fixed policy reaction function that includes among its arguments or determinants a single number capturing a well-known long-run inflation objective for us—for example, the Taylor rule that has a single number, π^*, that captures where inflation returns and to which any impulse response function you run is going to return in five or ten years. I believe, rather, that our recent experience clearly demonstrates that there have been substantial swings in the public's beliefs about future inflation and monetary policy—in other words, about what kind of policymakers we are. Moreover, I believe that the public is confused about how monetary policy and inflation should respond to energy-price shocks. I think this confusion arose in the wake of Katrina, and I think it has been exacerbated by our failure to explain that fact well enough to the public, even though we have all tried. More energy shocks are likely in the years ahead, and we need to condition markets to expect us to protect core inflation in response rather than attempt to protect the unemployment rate as we did in the 1970s.

I think the first-order policy problem for us today is to influence the evolution of the public's beliefs in a way that helps bring inflation down more rapidly than the public and the Greenbook are currently forecasting, rather than relying on subsiding special factors. In theory, a forceful enough communication about our intentions to act in the future could be an effective substitute for action today, but I am skeptical about this hypothesis as well. We have been quite careful to say that, if we pause, we could resume rates shortly thereafter. But every time we say that, the market reaction seems to be, "Did you say 'pause'?" This has the market focused on the possibility of our pausing and less focused on the possibility of our resuming afterward, and that is clearly reflected in what the yield curve has done since the last meeting, as illustrated in the Bluebook.

In sum, I acknowledge the case for below-potential growth over the next few quarters, as low as the staff believes. If I expected significantly lower growth than I do, I would obviously favor a lower real interest rate path than I otherwise would. But I think that the risk that the housing contraction will have broader multiplier effects on personal consumption and other sectors is still relatively small, and I do not think we should be satisfied with the path that inflation is likely to take if we stay on the policy path that the market anticipates. Communication is important, as we'll discuss later today, but there are times when actions speak louder than words. Therefore I favor a 25 basis point increase in the federal funds rate and a statement something like alternative D, and I favor them enough to vote accordingly.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you. Well, like others, I have asked myself whether this is the appropriate time to pause. I think there are respectable and reasonable arguments on both sides of that question, and so let me briefly make a couple of them.

In favor of the pause now is the observation, which I would reiterate, that I do believe inflation expectations are well anchored and have remained well anchored despite developments that we might have expected to have concerned people in the marketplace, namely higher inflation numbers in reality and an apparent growing conviction among many market participants that a pause in our policy tightening actions is likely to be forthcoming. The second argument concerns the well-known lags between our policy actions and their effects. I wish I knew more about those lags, to be precise, than I do, but it still seems to me it's a good bet that we have not seen the full effects of the actions we have already taken. The third argument is that market participants are expecting a pause at this point, or at least many are.

On the other hand, inflation has been more rapid so far this year than I had expected, and it is probably not a good bet that it will decelerate anytime soon. This persistence of inflation could have deleterious consequences for inflation expectations unless we communicate particularly effectively going forward, if we do pause. With hindsight, looking at the course of policy over the past three or four years, I think that it's at least possible that policy was too accommodative for too long; thus, we have more work to do to counteract those effects.

When I weigh those arguments and think about some of the other arguments I have heard around the table, I come down in favor of a pause at this meeting and in favor of something like alternative B. It's very important that we avoid giving the impression that we may be done, and I think alternative B largely does that. I am reluctant to wade into the morass of editing on the run; but if we wanted to strengthen that alternative, I think we could actually do it with one word in section 3, third line, by just saying "owing *only* in part to the pass-through." The thought I have is that the "only" signals that we're not simply suggesting this is all transitory and all due to special factors. But that's just a suggestion.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Thank you, Mr. Chairman. As others are, I am very torn about this decision. I come out for holding the funds rate constant, and here is the problem that I have with our situation. Part of it is the language that we used in the past.

If you look at the first exhibit that we were given, you see that the fed funds rate responded to the second-quarter GDP report and the employment report. We have told the market that we are going to be data dependent, and we have told the market that resource utilization matters to us. It seems to me that the lesson from that is, first, we should come through with what we told the market we were going to do and, second, we should get some of those things out of the statement because we need to put a lot more emphasis on the inflation risk that we face going forward. I am particularly unhappy, quite frankly, with leaving the reference to housing in there. Housing is likely to continue to have some weak numbers, and it seems to me that we don’t want the market to believe that policy is really being driven by one sector of the economy. I offered some language for section 2. I think that is a statement about the past—“has moderated from its quite strong pace.” If you just look at the second-quarter GDP report, there was moderation pretty much across the board. That was the language I suggested. I think we ought not to be referring to housing explicitly.

We should try to move toward a bare bones statement and not create expectations in the market that we are going to be responding. Of course, between now and our next meeting we may get some more measures that people would interpret as reflecting resource utilization. One of the things that is peculiar about having that in the statement at this point is that the staff is not forecasting any significant gap in resource utilization that would put downward pressure on inflation. So how can we be referring to resource utilization as our primary reason for thinking that inflation is going to moderate? It seems to me that there is some internal inconsistency there.

The problem that I have with alternative B, as it is now worded, is this: If we believe that we will want to increase the target funds rate at our next meeting—which I think is the interpretation of that last section—then we should do it today. We shouldn't signal it for the future. Given that expectations seem to be well contained, I think that we have a chance to use our language to get out from under some of the expectations we have created and that we should come through on the expectations we have already created. You see that clearly in the way the market set the fed funds rate in response to the incoming data. We've said we were going to be data dependent, and I think we'd better come through and be data dependent.

I want to say one other thing about housing. I think that housing may be telling us that it is really a good measure of consumer confidence. Housing obviously involves people looking forward and deciding what commitments they're willing to make. I would interpret housing as being a combination measure of people's attitudes toward the future, the security of their income flows, and the commitments they're willing to make—to include obviously not only the households themselves but also the lenders that are responsible for making mortgage decisions. So I would downplay housing as a direct component of GDP. Thank you.

VICE CHAIRMAN GEITHNER. Mr. Chairman? May I ask Mr. Poole a clarifying question?

CHAIRMAN BERNANKE. Certainly.

VICE CHAIRMAN GEITHNER. So, Bill, you would want to do what to expectations? How would you want expectations to evolve in response to your preferred version of the language associated with a pause today? Do you want them to be flat going forward?

MR. POOLE. Well, in terms of what we know today, I think we ought to be noncommittal. If we continue to get information that leads to extending the inflation risk or maybe indicating that it is more severe even than we think today, then we ought to be responding to that, and we ought to leave ourselves open to be responding to that. We shouldn't write ourselves into a box by focusing on resource utilization because those numbers are in many ways the most visible ones to lots of people. Suppose we get another low number on the August employment report, and we have pointed to resource utilization as one of the things that we're counting on? Are we then writing ourselves into a box in terms of the expectations we create by emphasizing resource utilization? So that's why I'm arguing for a very, very general and rather vague statement.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. Like others, I think the policy action at this meeting is a very close call, but in the end I support a pause, even in light of the continuing unfavorable inflation situation. I think that there is a real possibility that slack could be greater during this projection period than the staff's baseline projections expect because of weaker demand, stronger potential, or some combination of the two. I am encouraged that inflation expectations remain anchored. In light of all of the uncertainties attached to the current outlook, I would just like to take a pause and see how things play out. Now, as many have said, there is a chance that the data are going to reveal that this is not a good stopping point. If the data do reveal that more rate hikes are in order because inflation may reaccelerate, because inflation expectations begin to increase, or because economic activity appears to be more robust than our current projections, then I think we will need to consider the possibility of a more aggressive move. Unfortunately, I think it's unrealistic to expect that some of these issues are going to be resolved in one or two future meetings. But we have market-based measures of inflation expectations that are available to us on a continuous basis, and for that reason, it seems important to me to be especially focused on inflation expectations in the coming months.

I favor alternative B. I support Governor Kohn's suggestion that we move language from alternative C, section 3, to emphasize our concern about the inflation risks. I also want to add that, like President Guynn, I am not going to dissent if the consensus is for a move of 25 basis points. I came into the meeting leaning toward a pause. I have to say, after listening to many of my colleagues' statements today, that inclination is less pronounced. It's just a very close call today. Thank you, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. I don't think I'll surprise you. I agree with Governor Kohn that a pause is appropriate. In terms of some of the comments, I do suggest that we need to recognize that we often say that monetary policy operates with a lag. In fact, moves that we have made have not yet worked their way through, and we ought to see how they develop. A pause is appropriate to do that—it's not shutting off further moves but letting us look at the facts that are in play.

With that, I am bothered that the markets are already projecting that, sometime in the future, we will reverse and begin to lower rates, which I think is not something I would like to see. Also, because I recognize that there are genuine and serious inflation risks, we need to be—and to express that we are—very sensitive in watching inflation expectations. Part of our judgment will be not just on real economic data but on these expectations and on what inflation does, since that is our business. If I could say something in this language, it would be to the effect that I think we are restrictive, maybe moderately restrictive, and that we're going to stay that way until we see systematic declines in inflation. I think that would do a lot for us.

Having said that, in terms of the language, I would then be comfortable with alternative B, with the modifications that Governor Kohn has suggested, as we try to clarify our intentions, if that's what we want to do with this statement, moving forward.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Mr. Chairman, I think it was in March that I referred to Pascal's famous wager about the existence of God. Pascal's view was basically that if you look far out in the future from a risk-management standpoint, the answer was in the affirmative. [Laughter] I happen to accept the existence of inflation, and I admire President Lacker, President Minehan, and others who have made very strong arguments.

I take note of one thing that is very different at this meeting from what I have heard in my year-plus at this table. This is the first time that many people have said—and I certainly have heard this from the people I have talked to in the field—that they are moving on prices instead of being tamped down in terms of their desire. In other words, they have pricing power, and it is being realized. This is the first time we've heard that in the discussion, and it worries me.

It's very, very important that we signal our anti-inflationary resolve. I generally always agree with President Poole. I happen to be a minimalist as far as the statement is concerned. But if we pause here, it is very important that we use the kind of language that Governor Kohn suggested and that we make it very clear that this may not be the end of the process. Even more important, Mr. Chairman, is that we agree at this table that we'll be fearless in moving if we have to.

As to the market, I think President Minehan made a very good comment. Having been a market operator for thirty years of my career, I have found that markets are usually wrong. Our job is not to satisfy the markets. Our job is to get the economy right—that's our mission.

So I would accept a pause, Mr. Chairman, under the conditions I just mentioned. I like Governor Kohn's suggestion on language although, like a broken record, I would put the word "global" in front of "resource utilization" because I think that reflects reality. Having said what I just said, I would also say that, if the group decides to raise the rate 25 basis points, I won't dissent because I don't have a vote. [Laughter]

CHAIRMAN BERNANKE. Excellent reason. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. The incoming data have heightened my concerns about inflation. I think it's true, as a number of people have mentioned around the table, that inflation expectations have not moved up. The markets seem pretty confident that we're going to be successful in fighting inflation. But as Kevin Warsh said, the markets can be pretty fickle. We're going to get some further bad news on inflation in the coming months, and I hope the markets will maintain their confidence in the Federal Reserve. But their confidence in us could change as the news continues to be bad in the coming months. Also, I think we have to ask whether our failure for two years now to keep inflation inside what many of us have said is our comfort zone—1 to 2 percent—is going to weigh eventually on the assessment of the markets and their confidence in the Federal Reserve. I'm concerned that the public's confidence in us may begin to waver if we don't express our readiness to tighten if inflation doesn't head down soon. It's not clear to me that we've put restrictive-enough financial conditions in place to put inflation on much of a downward path. According to the Bluebook, the fed funds rate is close to neutral. In the Bluebook's longer-run simulation, the optimum policy requires further rate increases to put us on the path to 1½ percent. We won't get there just staying where we are now.

I realize it's a very close call, and everyone has mentioned that; but on balance, I would prefer to raise rates 25 basis points at this meeting. I won't repeat all the comments that Cathy, Charlie, and Jeff made. I think they were very persuasive. It would surprise the markets, but we shouldn't be doing what the markets expect us to do. We should be doing, as someone said, what's right for the economy and for the American people. It doesn't appear that an increase will be the consensus coming out of this meeting. I'd just add that, if we do pause, it's not going to be easy for us to start again. I don't think we should kid ourselves about that. We're going to be accused of whipsawing by the markets, and we'll take a lot of criticism. So we're going to have to take a very tough stand if we decide to raise rates again. It's not going to be easy, and we should just be prepared to do that. Looking ahead, I'd say that if we determine that factors are not reducing growth too much and if inflation does not appear to be moderating, then we're going to need to increase rates further to coax inflation back toward price stability. We have to make it clear in our public statements that we're prepared to do that.

If we do go with the pause, then I certainly agree with Don Kohn's recommendation that we should use the language from section 3 of alternative C and move it to section 2 of alternative B. To omit the reference to high levels of resource utilization, when we've had it in our past statements, would be a serious error.

CHAIRMAN BERNANKE. Thank you. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. Well, I'm like everybody else around the table—I have found the decision about which way to go to be a very tough call. I'm coming down on the side of a pause right now, partly because I'm more pessimistic than the staff forecast on the second-order effects of the slowdown in housing. We're hearing from some bankers that subprime borrowers especially are having more difficulties and that delinquencies in that sector are going up. Although I don't see a prolonged problem, as housing slows, the effects are going to bleed into other sectors, and whether into home furnishings or other things, I think there will be wider implications. I also think the optimism about the housing sector is so important to people because it's a big chunk of their net worth. So I'm just not as positive about the outlook here.

Another concern I have is what is really happening with the disruption of oil supply around the world. I think that situation is potentially more disruptive. We don't put political things in our forecasts. A good friend in the oil industry is very concerned, aside from the political risk, about the operating risk in the industry right now, as I mentioned awhile ago. So I think there is enough uncertainty out there that I'm on the edge, and it's that uncertainty that leads me to say, "Let's take time out and pause."

I like Governor Kohn's suggestion for the change in alternative B. It's important that we signal resource utilization. It's also important to signal that this is a pause and not a permanent stop because, when you look at the futures curve, it's as though the market figures that once we stop we're going to stop forever. It's also important that we signal that we are pausing to see what the lagged effects will be.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. From a capital markets perspective, as I think about this decision, what matters more than the pricing of this issuance—that is, the decision on 25 basis points—is really what the after-market effects are. How is this security going to trade over the next weeks and months? When I think about the decision in that context, it puts the burden on the communications, which are only in small part in the message of our statement today. At the end of the day, I am willing to agree to a pause. But, again, I think that puts the burden on laying the predicate that we are in fact poised and prepared to act as necessary. That begins with our statement, but it doesn't end there. Given the data that are likely to come in between this meeting and the next (a couple of CPIs, a couple of PPIs, maybe a revised PCE) and what's likely to happen to some of the forward-looking market indicators (TIPS spreads, some of the commodity prices), I think it is very important that the markets understand, before the trading in the security gets very significant, the depth of our thinking on the subject and of the discussion around this meeting. The minutes can be part of that communication. Such communication is important so that they don't perceive us when we meet next to be reacting to one or two pieces of data, the way they seem to have overreacted to one or two pieces of data last week, but really recognize the depth of our thinking on this subject.

To be consistent with that view, I think Governor Kohn's suggestion of indicating a pause as powerfully as we can is critical. The markets, in the first days, are going to take our pause to be a stop, as reflected currently in the Eurodollar futures contracts and the fed fund futures contracts. But we need to disabuse them of that view as quickly, as frequently, and as consistently as we can so that the pause does not become read as a stop. We will then have set out the conditions for the ways in which we might react if different data arise. Again, I think that the decision today is not an easy one. It's important that the markets recognize that it is unlikely that our work here is done. With all that said, I'm prepared to support Governor Kohn's suggestion.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. As I said before, obviously this is an extremely difficult decision, and I agree with many people around the table who have said that very respectable arguments could be made on both sides. So I would say that, on net, there are some advantages to keeping policy unchanged but communicating very, very strongly our wariness about inflation.

I think there is value in pausing to see what is going to happen with growth. Around the table, we certainly expressed different views about what is happening to growth. We know that we're likely to continue getting somewhat unfavorable numbers on inflation, but I think the markets are well primed for that. We've gotten some numbers that have been worrisome or unwelcome and not particularly favorable on inflation, but we haven't seen inflation expectations become unanchored. Also, we've been seeing that the markets have apparently been assuming that we are not going to move now and that we're not going to move in the future, if you look to the fed funds futures markets; but that assumption hasn't manifested itself in any increase in the short-term or longer-term inflation prospects.

That's very heartening to me. If that weren't the case, I would not feel comfortable in moving toward supporting a pause because, as many of us have discussed, the expectational context and credibility are very important. Credibility is an easy thing to lose and a difficult thing to recapture, but I don't think having a pause now would lead us to lose credibility. I think also that it's important that we see a pause as not being just until the next meeting but as possibly going over multiple meetings because a lot of information, particularly with respect to inflation, will come out over time. I expressed my view that we may be seeing some transitory effects on inflation that are due primarily to shelter services. Within two or three meetings we'll have a better feeling for whether or not those effects are likely to be transitory, and I think keeping our powder dry is very valuable.

We've been emphasizing not just that we are data dependent but that we are forecast dependent. What do the data say about what is likely to happen in the future? Saying that we are forecast dependent helps to underscore that, even though the current data or the recent backward-looking data are not favorable, we are looking to the future to what the evolution of inflation and growth is likely to be—exactly what the last line of alternative B emphasizes. I think, one, it's what we should be doing and, two, it's important for people to see that. So I would favor going with alternative B or having the language in alternative C. I'm not sure the alternative C language adds all that much more, given the fairly strong statement that we have in the assessment of risks, because I think that is likely to lead to a somewhat changed expected feds funds futures curve—to leave some probability that we may move and that this is not a stop. Certainly, if our pausing is interpreted as a stop, we need to pursue a communication strategy to convey that it is not a stop and that a pause does not mean just one meeting but possibly multiple meetings as we are gathering more information, particularly about the transitory versus persistent effects of inflation, and are keeping a very careful eye on the effect of both short-term and long-run inflation expectations.

CHAIRMAN BERNANKE. Thank you. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. We could obviously justify moving today, but we don't need to move today. We don't need to move today principally because we have an economy that has already slowed to what we think is trend and because we have inflation expectations at the long horizon staying relatively stable despite adverse inflation news and a fair amount of uncertainty about the path of inflation going forward. That has happened, as many of you have said, in the context of substantial downward revisions of the expected terminal fed funds rate. That's a bit of an experiment in credibility. We don't want to take too much reassurance from that, but it's positive.

I think we have to signal that inflation remains the predominant risk and that we may have more tightening to do. We have to make it clear that, if expectations deteriorate or if our forecast for inflation changes materially, we are prepared to tighten further. Many of the prisms we look through to judge the appropriate path of policy going forward suggest we may have more to do. They don't tell us with any certainty that we have a lot more to do; they suggest that we may have more to do. If you choose the 1.5 percent target for core PCE and take out the inertial preference in the optimal policy rules, the case for going significantly above 5.25 on the funds rate is pretty strong.

We need to look for the combination of action and message in the statement that gives us the most flexibility going forward. It's hard to know with confidence what that combination is. My own view is that, if we don't move today but we have a strong statement about the asymmetry around the risks, we preserve the possibility of tightening further. If we move today and the world unfolds as we expect, I think in some ways it's harder at the margin to tighten further. But none of us knows that with total confidence because we don't know how the market is going to interpret the statement.

Credibility is a very complicated thing. If we look as though we're moving out of fear that we've lost it, you could say that might be more damaging to perceptions about our credibility. You can think about the dominant option on the table as a pause coming from a position of strength and confidence and a move in these circumstances coming from a position of greater tentativeness and weakness. I don't think that would be desirable—it is something we should try to avoid.

Looking at market expectations today, I see three things that make me uneasy. One is the high degree of confidence that we're pretty close to being done. The second is the inversion—the speed with which they have us removing a bunch of policy tightening ahead. The third is the degree of certainty or confidence in the path for interest rates. I don't know why they have that degree of confidence and certainty; [laughter] I don't think we have it. It's hard to know, however, how to get us out of that mix. I think that, as several of you have suggested, it would be nice if we made the market a little less confident that we're going to be taking out the last move or two of tightening pretty quickly. How to do that is difficult.

Alternative B, as modified by Don Kohn, comes the closest to doing so. I would also favor a second suggestion, which is putting back in the reference to ongoing productivity gains, for the following reason. We revised down our estimate of structural productivity growth a bit, and that's a material change in our view about productivity. But the basic forecast, as we best judge it, is still a pretty good one for productivity growth. We don't want to look as though we've lost conviction about that basic positive outlook for productivity growth. Its omission would be very conspicuous, and I don't think we've learned enough to justify the risk of creating the signal that we've lost confidence that we're going to have productivity growing in the vicinity of 2, 2½, 2¼ percent. For those reasons, I'd favor putting that back in.

Just to summarize, I'm reasonably comfortable not moving today, but I think we should send a strong signal that the risks are still predominantly to the upside on inflation. I also think that alternative B, as modified by Don, does the best job of communicating that message.

CHAIRMAN BERNANKE. Thank you very much. First of all, I'd like to thank everyone for a really helpful and thoughtful discussion. It was very useful. Let me just make a few comments.

First, we do need to be careful to think about what the optimal policy looks like. It doesn't take the form that we keep raising rates until we're happy with the inflation rate. Instead, what we need to look for is the rate that, if maintained, will ultimately give us a good trajectory in the economy. I would submit that we don't really know where that is yet.

President Lacker made some very interesting arguments about the real rate of interest in the late '90s. Those are good arguments, but I would reply to him, first, that we've seen very low real rates in the past decade, a global savings glut and all of that, and, second, we have at the moment an IS shock of very significant and unknown size—the housing market, which is declining very sharply. So I agree that we may well want to go up from where we are. I think that's, in fact, a more likely outcome. But we really can't be sure at this point where we ultimately want to stop, and we need to be a bit cautious and try to learn about exactly where that level is going to be. For those reasons, I'm not comfortable with alternatives A or C because they basically say that we're done, either at 5.25 or 5.50, and so the choices then are between alternative B and alternative D.

I'm concerned with alternative D because, besides raising the rate to 5.50, it signals further increases. After seventeen consecutive moves, we would be tightening into a housing decline. We don't have that much confidence that we need to be so strong at this point. Signaling a strong concern about inflation but being more cautious in groping for the optimal level of the interest rate is probably a wiser course. I remind you that the Fed has not been terribly successful with soft landings. We have a chance to get one. All else being equal, I think it would be good if we could achieve that.

So I'd recommend alternative B. I'll come back to the language in just a moment. I characterize this as a hawkish pause. I think it has several advantages: The first is to gather information. With respect to some of the points President Poole raised, I think the key information we want to look at is, first, activity; we want to look at employment, housing, and consumption, in particular, which will give us some indications about growth going forward. But we also want to look at inflation data and inflation expectations data. Inflation expectations, specifically, are mentioned in the statement, and an untethering of inflation expectations would be, on its own, grounds for us to respond. The risk of our falling behind the curve by pausing is relatively small. Again, I think that we're not more than a couple of moves away from the optimal level. Therefore, if we miss a meeting or two and then move again in November or December, we will still be able to reach this optimal level within a reasonable period of time. Moreover, we have a degree of freedom on the other end, so to speak. If the markets expect us to begin to cut, we can always maintain the rate at the level for a longer period than expected to get some further restriction. So on the substance I think there are grounds, after seventeen moves and with the housing market in an indeterminate situation, to pause and to get more information.

I'd like to say a word about the tactics as well. President Minehan was correct that my introduction of the idea of a pause was not particularly well received. But we have now, at least reading the commentary, explained the difference between a pause and a stop. It's useful for us to get the flexibility that will allow us not necessarily to move at every meeting but to move as the data require. A demonstration of that flexibility has some value in terms of creating some more optionality for us in the future. Also, we have been talking about data dependence. By creating this flexibility, we'll be able to increase the relationship between what we do and what the data say, and I think that's already working. For example, I would note the wide dispersion of views among the dealers about where we're eventually going to stop. That dispersion of views comes from differences about where they think the economy and inflation are going. It is very encouraging to me that they are now not looking to us for forward guidance but rather looking at the state of the economy and trying to judge where the Fed will have to go to achieve its objectives. So recognizing the concerns that have been raised and taking them very seriously, I think that our best option, of perhaps not very many great options, is a hawkish pause, which I associate with alternative B.

With respect to the language, I think it is an improvement to take at least the first sentence of section 3 in alternative C, which includes high resource utilization, and use it in place of the first sentence of section 3 in alternative B. I have two questions for the group. One, do we want to reintroduce or go back to our old language of including productivity gains? If so, that would require the second sentence of alternative A, section 3. If not, we just use the whole section 3 of alternative C. That's question one. Two, President Poole has expressed concern about the housing reference. We could simply say "reflecting the lagged effects" and leave out the housing part. I would take suggestions on that. I would note that we have used this housing phrase in the past few meetings, and so it would be a change. President Lacker.

MR. LACKER. The unit labor cost figures suggest leaving productivity gains out of this. That's just my opinion.

CHAIRMAN BERNANKE. Okay. Other comments? President Fisher.

MR. FISHER. If we were to keep productivity gains in, I would suggest striking the word "ongoing."

CHAIRMAN BERNANKE. Any others?

VICE CHAIRMAN GEITHNER. May I say something on the mention of housing?

CHAIRMAN BERNANKE. Certainly.

VICE CHAIRMAN GEITHNER. I think Bill's reservations about it are right. Of course, they would have applied the last time we used it, too. I guess I would argue for keeping housing in on the grounds that it's happening. It is the principal area in which we see some weakness going on in the economy, and not to make reference to that reality seems a little awkward. It would be like having a statement that didn't mention what's happening in either energy prices or housing, and that would be hard to justify. So I would keep it, on the simple grounds that it is happening and it's an accurate description of reality. I don't think it's a problem.

CHAIRMAN BERNANKE. President Poole.

MR. POOLE. Section 2 can reasonably be interpreted as referring to second-quarter GDP. That's the news that we have, and there has been a slowing in a wide range of sectors. So I think that that's a sensible interpretation. There are continuing concerns about housing going forward. I understand that. But it seems to me that section 2 is really a statement about what has already happened in the economy—that's the essential element of it—and housing is just not the biggest thing that has happened. I would also agree with Jeff that we should keep productivity out because people logically say, "Well, unit labor costs are what are really important here," and we don't have a great story to tell on unit labor costs.

CHAIRMAN BERNANKE. Governor Kroszner.

MR. KROSZNER. I think it would be odd to take out the reference to housing, given that we have mentioned it a number of times in the past. The rationale clearly says that it's "partly reflecting" and then gives a number of factors. It is not saying that those factors are the only ones. Also, I don't interpret this language as being simply about what happened in the past; "has moderated" is also talking about where we are—that growth is not as strong as it was. I see that language as having a forward-looking aspect to it. I think it would be very odd to take housing out, partly because it's factually accurate, even if you take the historical view, and partly because, given our discussions around the table, we are concerned about "gradual cooling." It is appropriate to leave the reference in.

CHAIRMAN BERNANKE. President Moskow.

MR. MOSKOW. I agree with Randy on this. It would be very strange to take housing out now because it was in last time and because it is so important to the future of the economy. The productivity question is a close call. On balance, I'd leave it out because it does raise the whole question about unit labor costs.

CHAIRMAN BERNANKE. Any other views? President Plosser.

MR. PLOSSER. I'm new to these language nuances about housing. It occurs to me, however, that one question you ought to ask is whether by including housing or continuing to include housing the Committee is putting itself in a position where it can't raise rates until housing comes back. Are we unfairly locking ourselves in, or at least are the markets going to interpret it that way? That's just another question to think about in deciding how to include it.

CHAIRMAN BERNANKE. President Minehan.

MS. MINEHAN. I think that President Plosser has a good point there and President Poole did as well. Section 2 is aimed at explaining what has happened with growth in the past. Everything moderated. To me, the most surprising thing was how slow business fixed investment was. It was not so surprising that housing was slow because we expected housing to be slow, so I think you could easily take housing out of there. You have the lagged effects of increases in interest rates, which affect housing as well as a whole range of other things. I also think that Charlie has a good point. We don't want to hang our action on one piece of data versus another piece of data going forward. I'm agnostic about productivity, to tell you the truth. I think the unit labor cost numbers are not good news—we have some problems there—and to hang it out as a saving factor again and again may not be what we want to do.

CHAIRMAN BERNANKE. All right. I think we need to come to resolution. Oh, sorry. Governor Bies.

MS. BIES. I would prefer to leave housing in because housing resources aren't readily substitutable for other parts of the economy. If we leave resource utilization in, we're sort of acknowledging that, although housing is soft, there are still resource pressures in other parts of the economy. I think the picture is better balanced that way.

CHAIRMAN BERNANKE. Okay. Thank you. Let me just say that I think this language is purely descriptive. I don't think it's conditioning our action on anything having to do with housing. I don't think the market will tie our move to housing. Let's just take a straw vote. How many would like to keep the statement as it is with housing included? One, two, three, four, five, six, seven, eight, nine, ten, eleven. Okay. I think that's a majority. So we'll leave section 2 as it is. Is there any sentiment for going back to alternative A, section 3, second sentence, which includes ongoing productivity gains? Are any of you in favor of that? [Laughter] All right. The statement, then, will be exactly alternative B, except that the third section of alternative C will be substituted for the third section of alternative B. Would you please call the roll?

MS. SMITH. Yes. The directive would be, "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."

Then the risk assessment is, "Nonetheless, the Committee judges that some inflation risks remain. The extent and timing of any additional firming that may be needed to address these risks will depend on the evolution of the outlook for both inflation and economic growth as implied by incoming information."

Chairman Bernanke	Yes
Vice Chairman Geithner	Yes
Governor Bies	Yes
President Guynn	Yes
Governor Kohn	Yes
Governor Kroszner	Yes
President Lacker	No
President Pianalto	Yes
Governor Warsh	Yes
President Yellen	Yes

CHAIRMAN BERNANKE. Thank you very much. We have a lunch break now for about half an hour, and then we'll reconvene to discuss communications.

[Lunch break]

CHAIRMAN BERNANKE. I know some people have flights and so on, so why don't we continue eating here. If you're still eating, we can just reconvene. Before we get going, I just want to recognize Barbara Driggins over here. Barbara is retiring. [Applause] Thank you, Barbara, for thirty-six years of service, and we hope this display of affection will cause you to reconsider. [Laughter]

MS. DRIGGINS. I don't think so. [Laughter]

CHAIRMAN BERNANKE. Best of luck. Our afternoon session is on communications. I'd like to turn it over to Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. We are in a hurry, and I don't have anything really in the way of introduction. I just want to say that we sent a list of questions, but we didn't expect answers to every question. We hope that the questions helped to spark thinking about some of the broad issues related to communications—what we're trying to do and the broad strategy of how we should go about it. I remind you that, as the memo says, this is an initial discussion. Time is limited, so we'd prefer not to get into the details of various proposals but to think about broad issues of strategy and goals.

CHAIRMAN BERNANKE. Okay. We're just going to have a go-round. Please raise your hand, and Brian will take your name.

MR. KOHN. If no one wants to start, [laughter] I can start. I actually have just a couple of things to say. We need to keep in mind that communication is not an end in and of itself. It's a means to an end. Where we rank on some professor's table of transparency isn't really what it's about. It's about meeting our legislative objectives for stable prices and maximum employment. As we think about our communication, we ought to concentrate on that—what our goals and objectives are and where inflation and activity are going relative to those objectives, given the shocks and dynamics of the economy, and the broad policy outlines for strategy to foster those objectives. If we do that well, we'll help achieve those objectives, both by building public understanding of, confidence in, and support for a politically independent central bank and by giving private agents, in financial markets and in labor and product markets, information that should help them act in ways that will promote achieving our goals.

I think we've done a good job of this. Certainly, this institution for the past twenty-five years has been pretty darn successful at achieving our congressional mandates, and our communication has contributed to that. At least around the edges it certainly has helped, in both the political and the economic dimensions. So I don't think we have a communication strategy that's seriously broken, that needs radical surgery. But I do think it has grown in an ad hoc way, separately in each area of communication—the announcement and the minutes, for example. This is a good time to step back and see how things are fitting together—whether we can tailor some things to some audiences and other things to other audiences that we want to attract and whether anything is missing from the strategy.

The discussion this morning reinforced my view that we do need to talk about goals and about whether we should be numerically defining price stability. There's a presumption around the table that we have already done this to a certain extent, but we haven't as a committee. We're in a kind of untenable position right now in which the outside world doesn't know how we look at our objectives and how we would act. So we need to have that discussion, and I'm glad that we've scheduled it for the first part of the discussion in October.

How the economy is doing relative to our goals, objectives, and strategy does require forward-looking language. We tried to indicate in this memo that the forward-looking language has pitfalls that we need to keep in mind as we go forward. What we know is limited. That certainly was a theme this morning about our uncertainty, and conveying that uncertainty is really, really hard. How we indicate the risks, which are almost as important as the central tendency forecast, is something we're going to need to work on.

There are issues about the market's putting too much weight on what we say. I was surprised, Mr. Chairman, by the reaction to your testimony and how much emphasis they seemed to put on our projections, indicating where they thought things would be going forward. In retrospect, I wonder whether there are ways of indicating our degrees of uncertainty around those projections, and I think we need to honor and encourage the diversity and exchange of views in the Committee.

All those issues are hard with respect to the outlook for inflation and economic activity, and they are even harder with respect to the outlook for interest rates and our policy path in particular. The issues of conditionality, overweighting, and flexibility become even more acute when we start talking about our own policy path.

There are times, and the summer of 2003 was one of those, in which the market's interpretation of where our policy path might be has the potential for impeding our ability to meet our objectives. In 2003 and the subsequent year or two years, I think we were right to put some emphasis on that because, if we hadn't, it would have been harder to meet our goals. But for the most part, I think the markets should be able to infer what we're going to do from how we talk about our goals and our assessment of the economic developments, and we don't need to discuss the immediate outlook for policy. It would be nice to think about ways of getting away from this business of signaling what we're going to do exactly at the next meeting, partly because we don't know but also because it does sometimes build in expectations that affect our decisions and dynamics. Those are some broad thoughts I had.

CHAIRMAN BERNANKE. President Minehan.

MS. MINEHAN. Oh, dear. So you didn't want answers to all of these questions? This homework assignment was significant. [Laughter] I agree with a lot of what Governor Kohn has said. In my view, anyway, the principal goal behind central banks' communicating what they're doing and why is that they need to be accountable for their actions in a democratic society. I see that as the primary goal of all forms of central bank communication—that is, the preservation of the legitimacy of the central bank. We're not elected officials. We're appointed officials. We're doing something that's critical as far as the economy's performance is concerned, and we need to be accountable for it.

A secondary goal is to facilitate the transmission of monetary policy by better shaping the market's understanding of what we've done so that their actions can help the direction of policy. But in that regard, in terms of the market's facilitating the direction of policy, what we do really ought to be more important—and I think Don was saying this—than what we say about what we've done. Communication can help, but it can also hinder short-term market perceptions. Over the longer run, what we actually do will create or destroy our credibility.

We also need—and I think this is consistent with what Don was saying—to think about constraints. I would be very concerned if we ended up trying to convey the future course of policy with certainty except in very unusual circumstances, like those that began in mid-2003. In that regard, I took a measure of confidence in some of the Chairman's discussion in the policy round with regard to being encouraged that major market participants weren't unanimous in what they thought we were going to do, that there was a range of thought out there. I think we can learn from that. If we force everyone to have a certain view about what we're doing and then they just feed back to us what we've told them, we're losing a lot in terms of understanding what's going on in the market.

About some of the other questions here, I'll just try to hit the highlights. On quantity—we ought to think not about how much we communicate or how many instruments we have or how different they are but about their effectiveness. It seems to me that we ought to try to convey the uncertainties in the policy process in the most flexible and expansive of our communication instruments—our minutes, the semiannual reports, the Chairman's testimony, and the speeches that we give. The least flexible and least expansive forms of communication, in particular the statement, ought to be used to convey less-subtle information. Thus, as I've often said in the past—and I think President Poole's recommendations have been in the same direction—we ought to focus more in our meeting statements on what we did and why and leave the longer, more-nuanced discussion to the minutes or the semiannual reports.

If I had had a vote at this meeting, I wouldn't have dissented on the pause, and I was in favor of alternative B with the enhanced section to make it more hawkish. But when you step back and you think about a hawkish pause, you wonder whether you're asking your statement to do a lot of work for you, particularly if you think you're going to have to fill in exactly what you meant by that statement in subsequent communications over the following weeks. So I think some of that is a little tough.

On content—I don't want to get into inflation targeting. Yes, we have to talk about it, and we'll get into that later in the year, I suppose. On forward-looking information—that goes back to uncertainty. I would not like to get into the process, like some central banks, of giving a future policy path. There are ways of facilitating the market's understanding of what our forecasts are and where we see the risks. Maybe we can do a better or more complete job with our semiannual information, but I wouldn't like to get into communicating a policy path.

Finally, on the subject of individuals versus a committee—I don't think the Committee should constrain individuals. That's what the committee process is about—that we ought to feel free to express our opinions here as well as outside the Committee. However, I also think that, at times, circumstances are such that a number of us are speaking around the same time, which creates the impression of committing the Committee. I would want all of us to think hard and long about how we shape our public statements. Even though we all are very careful about not committing the Committee by saying that these are our views and not the Committee's views, there are lots of ways of saying things within our various statements that can act more or less to bind our hands going forward, and I'd like us all to be sensitive to that.

CHAIRMAN BERNANKE. Thank you. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. Don, I appreciate the outline that you gave in terms of raising the questions. I'll be straightforward. As far as goals—what we are doing and why is the important part of communication. That's our obligation. That is part of transparency, and it serves us well. Regarding our view of the future—I think we should outline that in terms of the balance of risks. What we're doing now is just about right, frankly. We need to get away from the idea of trying to signal or giving a policy path. I think that gets us into some difficulties. In addition, it binds Committee members who may not agree into the future, and that's a disadvantage to the Committee in the long run.

Having said that, I still think what we're doing right now is pretty darn good. Having the statement to say here's what we did and why and the minutes to show the nuances of the views gives further information to the markets and serves us well. Speeches may sometimes raise the media's attention, but I think they have served us well; I don't think that we've gotten ourselves into too many problems with them. Once we get through the discussion in October in terms of the price goals and that sort of thing, how we communicate may change. So we may need to have another discussion of this. But for the moment, with those comments, I'm pretty satisfied with where we are.

CHAIRMAN BERNANKE. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. I'll comment on just three areas, in the spirit of being general here. First, on the goals—I thought the goals that you put into the document you distributed were very good. They were very well stated and had an appropriate balance. I didn't think that they constrain open discussion at the meetings. The communication of uncertainty and conditionality is difficult, but part of our goal should be to do it better.

Second, on the quantity of information and the forward-looking content—that whole series of questions that you asked—I'd divide my comments into two parts. One, if we do go with some type of quantitative guideline, we will need to release more information. We'd need something like an inflation report, maybe quarterly, such as other central banks have, just to explain and elaborate on the guideline and how the economy was doing versus that quantitative guideline. I don't think we could just stay with the twice-a-year report that we give now in detail.

Third, we should talk about longer-term forecasts than we do now. That's an important part of this. In fact, if this Committee decides not to go with quantitative guidelines, we could accomplish many of the objectives by just having longer-term forecasts for the economy. If we did these longer-term forecasts, we'd have to address many of the issues that are discussed in the sections here—the policy assumption question, for example. We now do that based on appropriate policy, but we could do that in different ways. But the longer forecasts would allow us to convey policy goals, to discuss expected paths to achieving those goals, and to take into account the range of opinions regarding the paths and goals without necessarily having us agree to a quantitative guideline. At this point, I'm agnostic on the question of whether we should have a quantitative guideline. I should say that I really haven't decided yet and that the topic is for further discussion. In any case, longer-term forecasts would be one option to consider if we did not go with a quantitative guideline. Of course, if we did go with a quantitative guideline, we could also have longer-term forecasts. But I think the longer-term forecasts would help us improve our formulation of monetary policy, either with or without a quantitative guideline.

I want to mention just one other point about the policy conditioning. I hope someone could do research on the Bank of England approach. Don, I know you've been there. They present a forecast conditioned on the market expectations for policy interest rates. They also do an alternative based on an unchanged rate path. They've given us an example of one case in which the forecast based on the market showed that inflation would be outside the guideline when they published it, and the market immediately reversed its view as to what the Bank of England was able to do on policy without the Bank's saying anything. Just the publication of that forecast itself accomplished a lot of their objective. Of course, we'd have to be explicit about the technical details underlying the market expectations of the forecast, but that's sort of a technical part of this.

We're off to a good start, and I particularly like the goals that you set forth.

CHAIRMAN BERNANKE. Thank you. President Stern.

MR. STERN. Thank you, Mr. Chairman. Let me make just a few comments. I, too, like the goals. To me, the overarching objective of our communication policy should be to enhance the effectiveness of monetary policy. The goals that have been identified in this latest paper—which I take to mean making sure that, insofar as possible, we build public support for our policies and we work toward anchoring expectations—both work in that direction. It's very important that the public broadly defined understands what we're doing and why.

One implication of that thought is that we don't want to make the statements too terse. Now, I agree that they are supplemented by the minutes, testimony, speeches, and so on and so forth, but many people are wedded to the 2:15 p.m. announcement and the interpretations of that announcement, both immediately in the afternoon on CNBC and so forth and the next morning in the newspapers. If we make the statement too terse, we're going to leave people sitting around saying, "Well, we know what they did, but we don't have much of an understanding of why, how they view the world, where they think the risks lie," et cetera. So I would be careful about working really hard to shorten the statement.

One place we've had a lot of success, in my opinion, is in articulating our price stability goal, why that's the appropriate goal, and how it relates to the dual mandate. We've had more success than I would have predicted, quite honestly, when we started to articulate that more forcefully a good number of years ago. There might be something to be learned from that approach because I think we have been pretty consistent about that message and even some of its nuances.

We are going to get to the question about a numerical objective for inflation. When we do, we're going to have to think long and hard—I suspect this doesn't come as any surprise to anybody—about how that is going to play out in policysetting, in decisionmaking. We may need to provide some sort of background paper to the public at large if we adopt it—in other words, here is what we're doing, here's what we think the implications are, here's how it's going to play out in a policy role, as best we can see it. That's just something to think about for the future. I think I'll stop there.

CHAIRMAN BERNANKE. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. I think this Committee has made huge strides over the past decade toward greater transparency and more-effective communication, an example being that—it was in 1994, I guess—we actually started issuing post-meeting statements. I think we've seen significant dividends from those innovations. They have advanced the goals of both policy effectiveness and accountability. Our communication strategy at this point, in my view, is not fundamentally broken, and so I hope that what we can accomplish in the coming months is to produce some improvements in current practice without going for wholesale changes.

I thought today I would just touch on a couple of points that I've been thinking about relating to communications, without getting into specifics. Frankly, I think the goals are fairly noncontroversial. I regard them as pretty much motherhood and apple pie issues. What's challenging is figuring out exactly how to use communications better both internally in the Committee and externally to serve our policy goals.

A couple of cautionary notes: First, I want to endorse the point that Don made that we should not put in our list of goals that our objective is to maximize transparency for the sake of greater transparency. The research in this area provides very ambiguous advice about how much transparency is optimal. Second, we need to be careful that our communications don't actually impede the process of making appropriate policy decisions or our ability to do so. In contrast to some of you, I have generally favored the inclusion of forward-looking language in post-meeting statements, at least when the Committee has a reasonably clear idea of where policy is going, as it has until quite recently. But including such guidance does have the potential for building false expectations that can constrain our actions. I hope that we will continue to provide forward-looking guidance to the public because I think it does enhance the effectiveness of our policy actions. But I think we will need to be very clear that those kinds of policy pronouncements are not unconditional commitments to future actions, and we need to continue to emphasize data dependence.

I want also to emphasize a point that Cathy made, which is that communication is a two-way street by which we communicate with markets and the public but we also receive feedback from markets and the public concerning economic conditions and expectations concerning the future. We benefit from that feedback perhaps as much as or more than the public benefits from the utterances that we make. That is a kind of independent reality check on our forecast and analysis. Therefore, we have to be careful to ensure that these outside voices aren't drowned out by people who parrot back what we say. There are times when I have very much worried that our communications have turned the markets into a mirror in which we see little more than our own reflection.

Now I'd like to spend just a couple of minutes on what to me is the most critical challenge that we face as we go forward with our communication strategy. It relates to the apparent dichotomy between speaking with one voice and speaking as nineteen individuals. The question is how to provide the public with the clearest and most coherent description of our collective goals, strategies, and policies while continuing to promote an environment in which diverse opinions among the nineteen FOMC participants are not only tolerated but encouraged. In the past we have managed this balancing act in different ways depending on the circumstances, and we're going to need that kind of flexibility as we go forward. On the one hand, there are settings in which the Committee provides a reasonably unified view to the public; that occurs in our post-meeting statements and also in the Chairman's testimony to the Congress. On the other hand, we have a number of outlets for the expression of members' diverse views—the FOMC meeting minutes, participants' speeches, and the ranges of FOMC forecasts that are published in the Monetary Policy Report. I think that type of approach, of having some unified statements and many opportunities for expression of diverse opinions, is useful. First, it gives the public a reasonably accurate sense of both the areas of consensus in the FOMC and the range of opinion. Second, taking an "agree to disagree" approach lessens the likelihood that the FOMC will become trapped in a kind of group-think mentality, in which we end up conforming for conformity's sake. Of course, with the freedom to disagree, we do have a responsibility, when we make statements, to be careful that those statements are not interpreted as representing the views of the Committee as a whole. Finally, an approach that tries to limit the range of issues on which a committee as big as ours attempts to speak with a united voice will end up enhancing the sense of collegiality and cooperation in the Committee.

The post-meeting statement provides a concrete example of the tricky balancing act that we confront. We all know it's often easier to agree on a decision concerning the federal funds rate than it is to agree in every detail about why we came to that decision, let alone about what we expect going forward. It's impractical for the statement to convey the full range of our opinions and to attempt to give very detailed explanations of the Committee's thinking—again, it tends to ignite disagreements about which specifics to include or to exclude and about even the precise phrasing of each and every line. So in thinking about that, I find myself wondering if a better approach might be to recognize the intrinsic limits of the statement and to focus on communicating only necessary elements that clearly lie within the consensus view, leaving fuller discussion to the minutes and other things.

The same issue about unity versus diversity is going to arise when we come to discussing our longer-term inflation objective. I do greatly favor increasing clarity concerning the Committee's long-term inflation objective, but frankly I'm uncertain which approach is going to be the most attractive to accomplish that. There is a range of possibilities. One possibility is that the Committee could provide that type of information through the publication of the range and central tendency of participants' longer-term inflation projections, which presumably reflect ultimately their inflation objective. Another possibility is that the Committee could try to agree on the specific numerical objective to communicate to the public, assuming that a sufficient consensus does exist in the Committee. Certainly, the benefit of the latter approach would be a clearer signal to the public, which would be beneficial. But the tradeoff here is that we have to be careful not to straitjacket participants into a particular view that they don't fully endorse. So as we go forward, I think we're going to have to approach these issues case by case. In general, as I think about the question of unity versus diversity in our communications, I am moving to the conclusion that it's probably better to err on the side of preserving the advantages of the diversity of views at the cost of somewhat less of the clarity and coherence that would come if we could provide a unified voice to the public.

CHAIRMAN BERNANKE. Thank you. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. The first set of questions from the subcommittee had to do with goals and principles. The first principle I'd bring to this is that money is intrinsically worthless and has value only because people expect it to have value in the future. So, to be a little provocative, I'll say that monetary policy is about people's expectations, and everything else is just commentary. Therefore, I fully support the first goal—helping people form expectations regarding our future policy actions is a reasonable goal for communication policy. The second goal seems clear, too—ensuring accountability to the people who have granted us this monopoly on policy actions.

It's important to be clear about what's meant by communication regarding future policy actions. It may mean saying something about the future path of interest rates—and we've done that several times—but it doesn't have to. An alternative approach is to articulate what objectives will determine our interest rate choices in the future, and in principle, someone who understands our objectives and the constraints we're under will be able to figure out what we'll choose in any given circumstance. I think this offers really good prospects for overcoming some of the problems that the Committee has encountered with the forward-looking guidance language, when we essentially tell the public what interest rate settings we think will likely be required to achieve our objectives. It seems as though communicating that would be enhanced by telling them what our objectives are. In a sense, that would aid efficiency.

The subcommittee asked what constraints affect our communications. The obvious one that comes to mind is time consistency—essentially, the idea that our claims about our future actions are credible. People have to think that our future selves, be they us or our successors, will actually want to follow through on the actions that we've implied by our communications—we are selecting what our future selves are going to select. The question of whether our communications will constrain our future selves immediately arises. Now, one can make some stark assumptions about this question. In the literature, you typically see just two polar cases analyzed: One is "yes, totally"—the perfect commitment case; the other is "no, not at all"—the complete discretion case. But for the purposes of our discussion, I think it makes sense to adopt the intermediate view that our future selves are likely to view it as costly to be perceived as taking actions that contradict what we had previously communicated. So I'm happy to assume that our statements are not cheap talk, to use game theory language. At the same time, I don't think the credibility of our communications is perfect or costless. At all junctures we need to think through whether we will want to follow through on what we're implying by our communications.

That idea is related to a separate issue that often arises in discussions of inflation targeting and communications, and that is whether communication will reduce our future flexibility. At this point, let me just say that to stabilize the value of money we have already sacrificed a great deal of flexibility. I'd claim that we've given up the flexibility to inflate or deflate at 10 percent in any given year, in the near future. We've given up a lot of things to convince people that money should have about the value it has now. So it really isn't a question of giving up flexibility; it's a question of what flexibility we want to give up. Here I'd make another point as well. If communication is going to have any value at all, it's going to persuade some people to change their minds about what actions we would take in the future. Well, if that's true, then in some sense it has to involve our giving up some of the flexibility that the public has perceived us to have. So while there are flexibilities we would like to preserve, there are flexibilities we'd like to give up. I don't think flexibility per se is a trump card in this situation.

The subcommittee asked about what information should be communicated. I'll just focus on one thing that I talked about earlier today, and that's our long-run inflation objective. Let me be precise about what I mean here. Averaging across all possible futures, taking into account how we are expected to react in each possible future, what is the inflation rate *n* periods from now? It may not be perfectly certain, but what is the average across all of those futures, taking into account how we're going to react? Let me define that average as long-run expected inflation, at least the long-run expected inflation associated with the public's beliefs about our reactions that are built into that thought experiment I just described. In most of the standard models (except for those in which some learning about the policymaker is occurring)—models with Taylor rules or some other fixed reaction function plopped in—if you take *n* out long enough, like five years or so, long-run expected inflation is a single number that never varies. As I mentioned earlier this year, I don't think that's the world we live in now. Personally, I think that we ought to try to agree on a value for where we want inflation to be on average and communicate it to the public. I don't see the benefit in terms of short-run flexibility of letting expected inflation *n* years ahead have a big, wide, and disperse probability distribution around it or having the mean of that distribution fluctuate a lot. I can see the value of being flexible about how fast—a couple of years or a couple of quarters—we return inflation to target or about how far from target we let it drift; but I just don't see the value of allowing fluctuation in our inflation objective years out.

Whenever I encounter one of those software programs for calculating your retirement income and they ask for a lot of assumptions—such as your age, your salary, your age at retirement, and how fast your wages will go up, and all—and they get to a box where they ask what the inflation rate is going to be, I think to myself, I don't know what to put in there. [Laughter] And I think—that's exactly right. I know what I'd like to put in there, but at this point that's just wishful thinking on my part, and I'm hesitant to do that. I'm certainly not going to do that for my brother-in-law when he asks. [Laughter]

I think it's a real tragedy that we don't have anything to tell the country for circumstances like that. It's the one thing that we ought to be able to pin down in the long run; it's the one thing we know we can deliver. We can't deliver a predicted average real growth rate; we know we can't deliver a predicted average unemployment rate; but we all agree we have a fair amount of latitude about the long-run inflation forecast. Anyway, that's what I have to say about this subject.

CHAIRMAN BERNANKE. Thank you. President Guynn.

MR. GUYNN. Mr. Chairman, since I'm not going to be here in October, I probably should sit quietly; but I can't resist. I think almost everything has been said. I want just to comment quickly on a couple of things. I'm not sure we really talked about a very fundamental question—that is, who it is we are trying to communicate with. That deserves a bit of discussion, it seems to me.

Building on the whole notion of trying to quantify our objectives, I think we've seen what a box we can get ourselves in. In the absence of something, we all start offering our own quantitative whatever. At the current time, we're in a position in which many of us have specified what we think our comfort zone is. We haven't explained how we're going to measure it; we haven't reconciled the differences across people; we haven't explained what we're going to do when we're not there; so we've gotten ourselves in this kind of halfway house. Whether we'd like to talk about inflation targeting and all the things that go with it or not, we're going to have to stop and deal with it.

We haven't really talked very much about the role of the forecasts—and I hope policymaking has always been based on forecasts—but we have been much more explicit about that role in recent times. That opens up the whole question of whose forecast and how we talk about forecasts at all the different stages.

Finally—and I can't resist commenting—I think the greatest short-term tension regards the issue of what to do with the four-paragraph post-meeting statement and what to do with the minutes. I've more and more come to the view of Bill Poole that less is more. We simply can't get very much of the different ways of thinking into that four-paragraph statement. I think that's an impossible task. We all think about it very differently. We've heard it today. The statement is simplistic. I would hope when you get around to talking about the issue that it would be clear that the minutes offer a much better way of trying to help people understand not only the uncertainty but the range of views that go with the policymaking and not let that little simplistic statement after a meeting become the most important communication. End of story. Thank you.

CHAIRMAN BERNANKE. Thank you. President Poole.

MR. POOLE. Let me concentrate on the forward-looking information on the federal funds path or something associated with it. One of the problems I have with Janet's position is that, every time we put that information in, we need to have an exit strategy of how we're going to get it out. As soon as you stop putting it in, you get yourself tangled up. In fact, I think that's where we are today and one of the reasons that we have the language in the statement that we do today. I would put it in only under very special circumstances with a clear understanding of the strategy of how to get it out.

The argument of this whole bias/tilt language goes back to Volcker, I believe; it was used as a device to try to produce more agreement within the Committee. Then it was continued under Greenspan. It wasn't announced to the public. So the idea was that you would get some people to go along with what the Chairman wanted by saying that we'll have a tilt toward X or Y, up or down; it was meant to produce a larger vote for the consensus. Once we started to announce it publicly, it started to affect the markets. I was part of that decision. I was in favor of it at the time, and I have since had very strong second thoughts about it—in part because of the experience of trying to get out from under it once we started down that road.

We need to put more thought into explaining in our statement the decision that was reached, which we don't do very much of really. We don't put much text around the reason for the decision, compared with the risks or the foreshadowing of what we might do in the future. So that's where I would put my effort in drafting the statement.

CHAIRMAN BERNANKE. Thank you. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. I agree that the goals listed in the subcommittee's memo are the right goals. However, in thinking about the next few questions concerning the quantity and the content of the information and the nature of any forward-looking information that we provide, I find it difficult to make judgments without knowing where we're going to emerge from our discussion about what policy approach we take, especially the discussion about whether we're going to adopt a numerical inflation objective. As others have said, I think that our communication practices need to reinforce our policy strategy. In fact, we should consider our communication practices to be a part of our policy strategy.

So, for example, if we move down the path of adopting a numerical objective for inflation, then the appropriate communication strategy may simply be to provide the explicit inflation objective with little guidance about specific policy moves beyond reference to our performance against that objective. In that case, I think there would be less need for information in the statement that follows our meeting. However, it might require more information in our semiannual report to the Congress.

Then regarding the forward-looking language, again I think it depends on whether or not we adopt a numerical objective for inflation. A successful communication strategy should first and foremost give the public confidence that we're going to produce low inflation over the long run. I don't think that a good communication policy strategy, as others have already said, necessarily means that we have to make sure the public can anticipate our next policy move. If we have a numerical objective helping us to anchor long-term inflation expectations, then that forward-looking guidance might be reserved for those times when the Committee has a great deal of certainty in the course of its near-term policy moves or when it perceives that the cost of being misunderstood is just exceptionally great.

Regarding the last set of questions from the subcommittee involving the individual communications or the Committee communications, I believe that whatever communication strategy we adopt, it is important to preserve our ability to give and express independent views, especially about forecasts, policy strategies, actions, and so forth. It's clear that each of us formulates our own independent opinions about policy actions, and we form those opinions from a sense of how we think economic conditions will evolve. I'd like to preserve the ability that we enjoy today of sharing our independent thinking and the climate that I sense we have today of a Committee that's very skilled at building consensus around different perspectives but yet sees the benefit of respectful dissent. Thank you.

CHAIRMAN BERNANKE. Thank you. President Fisher.

MR. FISHER. Well, Mr. Chairman, we do have responsibility for a fiat currency, and my straightforward and undiplomatic way of describing what we do for a living is that we are performing a great confidence game. I think that's important to bear in mind. As President Yellen said, this is apple pie and motherhood. The answer is "yes" to the first questions, but there are questions about which agents we are talking about and, when we talk about generating well-informed expectations, how we do so.

I mentioned earlier, to Governor Kohn's embarrassment, "full frontal exposure," and I think that's not an unimportant point. To maintain the confidence game that we have to maintain and—if you'll permit me to say this having experienced the other side—to maintain the last bastion of integrity in Washington—and I feel very strongly about that—we have to be very careful that we preserve a bit of modesty and mystery to accomplish our goals. The really tough part is how far we go, and that's what we're going to have to talk about going down the path. For example, I'm somewhat uncomfortable, even though I have great respect for President Moskow, about making long-term forecasts. The further out you forecast, the more probable error is. I am wary of exposing our vulnerabilities, and I think we should be mindful of that as we go through time. That's just one thought.

Another thought is about the statement. I may have forgotten my logic here, but I think we should be as straight as Occam's razor—that is, we should take as few variables as possible to explain what we decide to do. I do think the minutes are very important for illumination. I don't want to manipulate the minutes, but I think we can use them quite effectively. In my statement earlier in the meeting, when we were discussing our view of the economy, I said that I think we did that very effectively the last time around.

Then a third point—I'm a strong believer in partnerships. I mentioned this at a dinner with the Presidents last night. I'm also a very strong believer in a strong managing-partner model, having worked all my life in the private sector in partnerships. But I do think it's very, very important to have a diversity of views, and so I second what has been said at the table on that front as well. Those are my three comments, Mr. Chairman.

CHAIRMAN BERNANKE. Thank you. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. I, too, support the broad goals that are laid out here. In thinking about communication, I see that one challenge we will have relates to some of the dialogue we had today. We set some long-term goals. How do we link those to what we do in individual meeting actions and decisions? We already talked about how inflation has been above our 2 percent top goal for two years, and it is likely to be so for two years more. How would we explain that when we were trying to go forward? This is the sort of problem that corporations have every year, when they set goals for shareholder returns, but then the earnings jump around like crazy quarter to quarter. Well, we're going to have the same kind of issue. It raises the question of whether we want to talk about how we're going to get from one place to another. In other words, a company can say that they took these big chargeoffs, but that will reduce the cost base, or that they are making an acquisition. We need to have some real dialogue about what a set goal is going to mean for our short-run communications after each meeting and for the policy path. It's the difference between setting the goal and implementing and executing it effectively. If we can't communicate how we intend to implement effectively, then we ought to have second thoughts about the goals that we're setting. Since I've been here we really haven't talked a lot about how to tie those two together.

On the forward-looking information—it might have been appropriate back when we started this 25 basis point step-up each meeting. I'm glad we're now taking the position that we're trying to push the risk back to the market. The market has to make its own forecast of what's likely to happen. We need to be clear as to what the key drivers are and pick the few vital elements that we really all can agree on. We need to communicate that well but make the market judge where those variables are likely to go in the outlook. I don't think we do a service to ourselves or to the market if they feel they can sit back and let us make the call. The moral hazard and other issues there are simply too great.

CHAIRMAN BERNANKE. Thank you. Governor Warsh.

MR. WARSH. Thank you, Mr. Chairman. Just a few brief comments. First, with respect to the concision of our statement and the minutes, I guess in a perfect world the minutes would come out much sooner after our statement, but I recognize all the work that needs to get done to get consensus and understanding on those.

I have a modest suggestion, which we can take back up in October. The minutes could end up being released somewhat sooner but also be more corporate in nature. It strikes me that a lot of the communication that we do through the minutes is useful for history and for an understanding of many of the nuances that we've talked about but is probably not that useful for some of the other communication purposes discussed here. It would certainly be useful if the crucial arguments in the discussion we had today were available in the minutes before three weeks have elapsed. That would take some of the burden off figuring out what goes into the statement. Without burdening the staff by getting the same product done sooner, we could think rather about what should be part of a corporate-style set of minutes. We've taught the market that a full set of the minutes would come out, but my own suggestion is that the full set could be somewhat delayed. That's just a sort of provocative suggestion without as much discussion and thought as we'd want, but I think it partly addresses the statement issue.

Second, on striking the right balance between individuals and the Committee, I'm more convinced than ever, now that I have gone through four FOMC meetings, that the diverse views that people express on monetary policy outside this meeting are important and are critically independent. What I'm going to say is not an attempt to break that divergence of views or dissuade people from sharing them. I think it's actually more problematic when FOMC participants say similar things between meetings. For example, Mr. Chairman, let's say that you said X and that 18 of us went out and repeated X more or less identically after the meeting. The market understanding of that is no longer X or 2X but perhaps 10X or 12X, and I think that does prove problematic. A burden should be on each of us, when we take our messages to different places between meetings, to be thinking about the consequences, in particular, when we're saying similar things. None of that means to say that if you believe Y instead of X you should not be able to go scream that from the hills; but if you believe a nuance of X, you really have to consider how the markets are going to understand the repetition that they've heard.

Third, just a brief point about market discipline—I think President Yellen and President Minehan made reference to this. We've been fairly cognizant over the past several meetings about getting the markets to do their own work and not to rely on us. That market discipline is very important. Governor Kohn said at the outset that the purpose of this discussion is not to have transparency for transparency's sake but to try to get to the right monetary policy objectives. It strikes me as though we could well test the limits of transparency by sharing too much information and getting the markets in a position where they stop doing much of the homework we've only started getting them to do at this point. The right place to come to that judgment is somewhere around where that transparency ends up making them more lemmings than we'd ideally like. I must admit that I'm not exactly sure how to pull that off, but it strikes me that's the way to structure or to think about that discussion. Thank you.

CHAIRMAN BERNANKE. President Plosser.

MR. PLOSSER. Thank you, Mr. Chairman. The goals are pretty clearly stated, and I have no real problems with them. I agree that communication and transparency are really a key part of maintaining and enhancing our own credibility. I also understand, as I listen to people around the table and other conversations, that some of these issues have no easy or clear answers to them, and I should note in advance that my own views are evolving as I think about and understand the nuances of the issues. I agree with President Yellen. I'd like to applaud the Committee because in the past ten years there have really been great strides in both transparency and communication.

Part of the challenge, it seems to me, is how we meet these goals. I think it's true that putting some limits on what information is released is probably necessary over certain periods of time. For example, I wouldn't advocate opening the FOMC meetings to the public; I think that would not be terribly useful. On the other hand, Governor Warsh was just talking about perhaps releasing minutes earlier or faster or some version of them, maybe with incomplete detail, but including the tone and nature of the discussion. I think it could be fairly useful and informative, particularly if it noted disagreements or discussions in terms of where the tension happened to be within the meeting. I spent several months at the Bank of England a couple of years ago and watched the give and take among committee members at the MPC and also watched them go out in public and discuss their different views and why they disagreed with each other. That was very instructive to me because they did it without apparently adding to volatility in the marketplace. The market had come to accept the notion that these people disagreed on some things.

The information released might differ depending on the type of monetary regime we think we're in—whether in a regime of inflation targeting or one of full discretion. However, regardless of the regime, the need for policymakers to clearly communicate what their goals are, their understanding of the economy's current economic conditions and expected future conditions, and then the reasons for their decisions is an important part of communication.

As to the quantity of information, quantity and quality to me are intertwined, so I'm going to talk about both of them together. Again, I applaud the expedited release of the minutes. Instituting that was a tremendous step forward, and I think it's a very good idea. However, I would favor the Committee's releasing some additional pieces of information. I obviously favor stating an explicit definition of price stability because doing so would help clarify our goals. The current practice of citing the range and central tendency of members' forecasts is fine, but I would favor our releasing more information, perhaps in a quarterly forecast or in something like an inflation report, to help convey to the marketplace and the public what our range of views is and where the Committee stands on the state of the economy.

It might help the public's assessment of our views if we based our forecasts on some underlying policy assumptions rather than on what one might call appropriate policy, which might differ from member to member obviously and would likely not be well understood by the public anyway. One suggestion that has already been mentioned is conditioning the forecasts on the market's expected funds rate path, for example. But in some way stating our assumptions or projections about potential GDP would be important as well because that information, again, will help the markets and market participants understand where the Committee is coming from.

In regard to forward-looking information, I think there are a number of things that the FOMC could and should communicate, but its current expectation about the future path of the fed funds rate is not one of them. I don't think that's a very good practice in general. However, I do think that what we need to do is talk more about what our goals are, what our forecasts of those goals are, and even more in a qualitative sense the process by which we think we're going to get there. That is to say, talking about how monetary policy will respond to various events—I hesitate to use the phrase "decision rule"—wouldn't necessarily say anything about the future path of the fed funds rate, but it would be very informative.

It's critical, as has already been mentioned, that the FOMC members agree on what the goals are. The members don't need to agree on the model of the economy or the channel by which they think monetary policy actually operates. Indeed, given the state of economic science, the differences in models and channels can aid in policy formation. Similarly, since dissents at this meeting are public, dissenters should feel free to explain the reasons for their dissent. We shouldn't discourage presidents and other members from expressing their views about the state of the economy and the process. Committee members should be free to indicate how their views on the economy are evolving. In fact, I think that doing so supports our goal of helping the public form sound expectations of what policy is actually going to be.

CHAIRMAN BERNANKE. Thank you. Vice Chairman Geithner.

VICE CHAIRMAN GEITHNER. Thank you. I want to start by saying that I think we're confronted with a set of issues that really aren't principally about communication and transparency. I think they're fundamentally about how we conduct monetary policy and the monetary policy regime we're going to operate under.

I want to say a little about what I see as the hierarchy of challenges or decisions we have to make in that context. We have to have a discussion about what objectives, particularly in terms of inflation, will guide this Committee's decisions going forward, and I think it's hard to do that without a discussion in quantitative terms. We also need to get in the position of thinking and talking through more directly and candidly at these meetings how we make decisions about the most appropriate path for inflation and output, especially at times when we're way off our basic objectives. We don't really do that now. We've been living with a lot of ambiguity about whether we're operating with, in effect, an objective of getting core PCE down to some particular level at a certain time or not, and I don't think we can be comfortable living with that degree of ambiguity much longer. In some ways, that set of issues is the first we have to confront. We may not get consensus or resolution, but we have to talk through those issues.

We also have to decide what we want to disclose in terms of our objectives, our forecast, the policy consistent with that forecast, and uncertainty. We face a lot of choices in terms of what we do and how we do it regarding quantitative versus qualitative and explicit versus implicit approaches to communications. Several of you said that in our statements we should simply say what we decided and why, but I don't think it's quite that simple. The "why" has a lot to do with the forecast, and to say nothing about the forecast in the statement would be communicating little about the reasons for our policy decisions. But the "what" is also not simple: It is certainly not principally about whether or not we move the fed funds rate. The "what" we're deciding has to do a lot with whether we take a view about or try to change or validate the market expectations going forward over some period. So I don't think we can get through the choices about communication and transparency by just agreeing that we want to limit ourselves to the more-minimalist objectives of communicating what we did and why. It feels to me a little more complicated than that.

The third point is a general point. If we are going to change the regime, we can't do it piecemeal. We can't decide that we want to announce a quantitative definition of long-term price stability without confronting the kind of disclosure regime that we have to adopt in support of that. Also, we can't think sensibly about the evolution of our disclosure regime around the forecast, for example, without coming to some greater understanding about whether we disclose a quantitative objective for inflation. So I think they need to be viewed as a package. For a similar reason, I think we can't approach this set of changes by saying let's move on the things that are easy or less contentious or have more of a consensus without having a better sense of where we really want to go. That doesn't mean that we should change all at once or, if we decide to change things, we do them all together. We can still decide to have a graduated approach to introducing the changes in the regime, but before we make an incremental move, we need to have a better sense about where we want ultimately to go. If we don't have consensus about where we want to go, then it's harder to decide what the incremental move should be. It doesn't mean we should be inert.

It's very healthy to have a candid discussion about what we think is wrong with our current regime. I used to work with somebody who said to me, "Don't bring me problems without solutions." Therefore, discomfort with a set of attributes of our regime relative to the experience of other countries is really not enough to justify change. We have to be able to look at the proposals for change and be very comfortable that they're going to respond to the problem without leaving us with a set of other collateral risks or disadvantages. It's also good to have a direct and open discussion about what we do not want to try to achieve through communications. I'm very uncomfortable with what I think it would be fair to say is a substantial faction in the academic profession now, which says that the optimal communication policy of central banks should be to seek very close alignment between the market's expectations about future policy and the central bank's and to achieve that alignment in real time and not have long periods of wide divergence between what the market thinks and what we think is appropriate. That position strikes me as highly unrealistic and complicated and maybe difficult to achieve, but we should talk through that issue. I think it's also unrealistic to say that we should avoid clarity about our views on the future course of the economy and policy. That pure fog alternative seems unsatisfying and uncomfortable to me.

I have nothing to add to the discussion about diversity. There are great benefits to diversity. I do think we should try to avoid having, because of scheduling, many members of the Committee talking in the same period. It is difficult to achieve but worth thinking about.

Finally I just want to compliment the subcommittee. The way you have laid out the issues is very nicely done. I also want to compliment the Chairman for approaching this subject very openly, having us try to think through all the difficult choices involved together, and allowing some analysis, debate, and a little competition for ideas help inform choices about how we go forward. I think that approach is admirable, and I commend you for it.

CHAIRMAN BERNANKE. Thank you. Governor Kroszner.

MR. KROSZNER. I'll be very brief. I think a number of the points that Vice Chairman Geithner made are excellent, in particular his emphasizing that we have to think about this as a package but not as necessarily meaning that we must implement everything at once. We may want to see how the pieces are working before we do that, but we do have to have the ultimate goals in mind. We need to have the whole thing together before we can start moving forward because it could be quite dangerous to change some aspects of communication policy but then realize that, if we want to do something else different down the line, we'll have to change them again. So I think that approach is exactly the right one.

Also because what we're doing relates to any changes, we have to think about the dynamics. We see this now in the persistence of certain words in our statements. We use the word once, but then do we use it again or do we not use it again? Individual words take on an incredible amount of importance. Now, one way to solve that problem is perhaps to put out more and more words so that each one is diluted. [Laughter] An awful lot of private-sector resources were devoted to the three-letter word "yet" that came out of one of the statements, when I believe that not a single member of the FOMC even noticed it. I think that is problematic. I'm not quite sure of the best way to solve that problem, but I think we have to be very sensitive to that.

On the issue of the one versus the whole, the markets have a very strong perception of coordination among us. The notion that the Governors are independent and that the Federal Reserve Bank Presidents are independent is considered laughable. When people ask me about that, they say, "Well, doesn't he tell you what to do?" I say, "No, no one tells anyone what to do." Maybe you'd like to, [laughter] but that's not how it operates. Part of that notion is just a perception, and so having people speak at the same time may not be much of a problem. But the perception is that it's a coordinated effort rather than a series of individuals who are expressing their views, and I think communicating the extent of our independence or the extent of our coordination is something that would actually go a long way toward things. I was one of those academics that Don referred to as putting up those tables and trying to figure out whether we were independent or not, sort of rating us. But that is not what we're supposed to be doing, and I hope my comments will not be taken in that context.

One final remark is that we have to be modest about what we're trying to do. Part of this discussion is the way of conveying our uncertainty. I would close my class on money and banking, and I'll close my remarks here, by presenting a fantastic *New Yorker* cartoon. It relates to the former Chairman and shows someone praying, just before going to bed, about the former Chairman, that he knows what he knows, he knows what he doesn't know, and he knows the difference. It's important for us to be able to try to convey to the markets that we know what we know, we know what we don't know, and we do know the difference.

CHAIRMAN BERNANKE. Thank you.

VICE CHAIRMAN GEITHNER. What if we don't know what we don't know? [Laughter]

CHAIRMAN BERNANKE. Let me add just a couple of very general comments. I hope that in our discussions about communication we'll be aiming to make policy work better. I think that involves trying to make the markets and the public form expectations that are at least broadly consistent with our goals and our strategy and trying to anchor long-term inflation expectations to the extent possible. Even if you are skeptical about our ability to do this, you may still agree that we want to avoid miscommunication and unnecessary volatility to the extent possible.

I agree also that in general we don't want to provide the future funds rate path. I see a lot of problems with that. One of the reasons not to do it is that, if the market is forced to infer the funds rate path from economic information, that inference provides information to us. Otherwise, they're simply repeating what we tell them. In an ideal world, how would we get the market to infer our expected path? Well, we would provide them with a conditional forecast with error bands and all kinds of conditioning assumptions, and we would tell them about our objective function, which would include not only the long-term objectives but also the relative weights on inflation and output and the shape of the risk aversion coefficients and the like.

Now, of course, we can't do that. Besides the technical difficulties, as has already been pointed out, we have nineteen very distinct points of view around the table. But I do think there are ways to communicate this kind of information to the public. As an example, in my monetary policy testimony I very consciously—whether it was successful or not I leave it to you to judge—talked about our Committee projections, which gave the public not only some insight into what our general views were but also information about our preferences because it showed a relatively gradual decline in inflation. This removed the fear that at least some market participants had that we were going to try to bring inflation down extremely quickly and extremely far. In that respect, it was very useful, and I generally agree with President Moskow and others that more-detailed and more-frequent projections might be a very useful way for us to go in the future.

Finally, since we don't have the budget to hire a semiotician, I do want to express some frustration with the coded language that we rely on so heavily—I have been exposed to some of the pitfalls that it can create. I think that we are reaching the limits of what codes can provide, and I'd like to encourage us to think about ways to use quantitative information, like forecasts, to provide more information and thereby reduce the weight that's placed on any single words in statements and the like. So those are just a few comments.

I want to thank everybody for an excellent discussion and for a lot of patience. I appreciate it very much. Our next meeting is on Wednesday, September 20, and we are adjourned.

END OF MEETING