**Meeting of the Federal Open Market Committee on September 20, 2005**

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., at 9:00 a.m. on Tuesday, September 20, 2005. Those present were the following:

Mr. Greenspan, Chairman
Mr. Geithner, Vice Chairman
Ms. Bies
Mr. Ferguson
Mr. Fisher
Mr. Kohn
Mr. Moskow
Mr. Olson
Mr. Santomero
Mr. Stern

Messrs. Guynn and Lacker, Mses. Pianalto and Yellen, Alternate Members of the Federal Open Market Committee

Mr. Hoenig, Ms. Minehan, and Mr. Poole, Presidents of the Federal Reserve Banks of Kansas City, Boston, and St. Louis, respectively

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

Messrs. Connors, Evans, Freeman, and Madigan, Ms. Mester, Messrs. Oliner, Rosenblum, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

Messrs. Slifman and Struckmeyer, Associate Directors, Division of Research and Statistics, Board of Governors

Messrs. Clouse and Whitesell, Deputy Associate Directors, Division of Monetary Affairs, Board of Governors

Mr. English, Assistant Director, Division of Monetary Affairs, Board of Governors

Mr. Simpson, Senior Adviser, Division of Research and Statistics, Board of Governors

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

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

Mr. Durham, Senior Economist, Division of Monetary Affairs, Board of Governors

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

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

Mr. Rives, First Vice President, Federal Reserve Bank of St. Louis

Mr. Eisenbeis, Executive Vice President, Federal Reserve Bank of Atlanta

Messrs. Elsasser, Fuhrer, Hakkio, Rasche, Sniderman, Weinberg, and Williams, Senior Vice Presidents, Federal Reserve Banks of New York, Boston, Kansas City, St. Louis, Cleveland, Richmond, and San Francisco, respectively

Mr. Potter, Assistant Vice President, Federal Reserve Bank of New York

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

# Transcript of the Federal Open Market Committee Meeting on September 20, 2005

CHAIRMAN GREENSPAN. Good morning, everyone. We'll start with Mr. Kos.

MR. KOS.[1] Good morning, Mr. Chairman. Thank you. I'll be referring to the charts that are in front of you.

During this intermeeting period, market participants were principally occupied with the economic impact of Hurricane Katrina and alternating their judgment as to whether the growth or inflation effects would dominate.

The top panel of page 1 graphs the 3-month deposit rate in black and the same rate 3 months and 9 months forward in red. In the two weeks after your last meeting, the 9-month forward rate edged down a bit, as market participants began to speculate that the tightening cycle was pushing the fed funds rate into territory that was within hailing distance of the so-called neutral rate. Forward rates then fell sharply in the days after August 29. Suggested reasons for the fall include the possibility that the Committee might pause at this meeting or that the negative growth impact of the hurricane would dampen output and abbreviate the cumulative amount of tightening, even if the Committee were to move today. However, forward rates began to rise as market participants shrugged off initial worries about lower growth and began to worry somewhat more about potential inflationary effects. Those concerns were reinforced by higher prices-paid data in some of the manufacturing surveys and also by Friday's inflation expectations component of the Michigan consumer survey.

Longer-term yields (in the middle panel) told a similar story, with the 10-year Treasury yield heading toward 4.0 percent in the aftermath of the hurricane but rising to 4¼ percent subsequently. The yield curve, which had flattened on expectations that the impact on growth would dominate, steepened as concerns about growth were balanced by equal concerns about inflationary effects. Adding to the uncertainty for the Treasury market was the wide range of estimates for rebuilding the Gulf region and hence for additional federal borrowing in fiscal 2006.

The bottom panel graphs the breakeven inflation curve as of three dates: the day of the last FOMC meeting, the Friday before Katrina hit, and this past Friday. The horizontal axis represents the maturity of each outstanding inflation-indexed Treasury security. Note that the short end of the curve began to rise before Katrina inasmuch as oil and gasoline prices had already begun their ascent. The breakeven curve rose

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

further in the next three weeks across the curve, though the rise was especially pronounced at the short end.

With nominal rates, on balance, little changed in the period and the breakeven curve higher, the effect has been to lower and steepen the real yield curve, as shown on the top panel of page 2. Given the arithmetic relationships between nominal and breakeven yields, this graph merely takes the information of the last two charts and shows it another way. Nevertheless, the reduction of real yields is pronounced and may suggest—at least for the next few years—that investors have an eagerness for protection from rising inflation. In other asset markets, spreads and volatilities were mixed on balance and did not exhibit any uniform anxiety about a changed outlook.

The middle panel graphs the performance from July 1 of selected equity indexes. In general, equities have risen globally in that period, apparently unfazed by higher energy prices. The middle right panel graphs the performance of the S&P 500 and its major components since the hurricane. Not surprisingly energy stocks have performed best. Meanwhile, consumer-related equities have performed worst. And some retailers, especially those catering to lower-income households, have been particularly hard hit, as higher gasoline prices took their toll on those consumers even before Katrina.

Municipal bonds issued by governments in the Gulf region held in fairly well despite the physical destruction. As an illustration, the bottom panel graphs the spread to the 10-year Treasury of the New Orleans bond of 2029. The spread narrowed versus Treasuries and outperformed the broader index. Apparently, the prospect of a multibillion-dollar infusion of federal funds quickly eased any anxieties investors might have had.

Turning to page 3, there was no uniform response in the spread and options markets to the hurricane. The top left panel shows the implied volatility of a 1-month option on the front-month gasoline contract for the year to date. With the refinery outages, it’s no surprise that volatilities for gasoline have jumped sharply, though the extent of the spike is noteworthy. However, as noted earlier, the picture for other assets is mixed. The top right panel graphs the implied 1-month volatility of 1- and 10-year swaptions. Volatilities on longer-dated swaptions barely budged, though for shorter-dated swaptions—which are more sensitive to changing expectations about monetary policy—volatility rose sharply.

With equity markets rising modestly, the VIX [S&P 100 volatility index] traded toward the lower end of its range and actually declined after the hurricane, as shown in the middle left panel. Meanwhile, volatilities on currencies, shown in the middle right panel, stayed low in the high single digits.

Finally, credit spreads showed no clear pattern. The investment-grade spread at the bottom left and the high-yield spread in yellow at the bottom right both rose slightly. In contrast, the EMBI+ [Emerging Markets Bond Index Plus] has continued to narrow to an all-time low spread despite higher energy prices, a political scandal in Brazil, and uncertain elections in 2006 in several large issuer countries, including Mexico and Brazil.

Turning to page 4, I wanted to return to a topic that President Minehan asked about at the last meeting, namely, the dynamics related to settlement of the Treasury futures contract.

To provide some background and context, the top panel depicts in the light blue bars the peak open interest in the 10-year Treasury futures contract. The dark blue bars represent the issue size of the cheapest-to-deliver Treasury security, also called the CTD. Starting in 2002, the volumes and open interest in the futures contracts began to rise sharply. But with issue size remaining in the $20 billion range, the ratio of open interest to size of the CTD increased sharply.

The growth of peak open interest did not raise eyebrows initially since most futures contracts are used for speculative, hedging, or arbitrage purposes. Most contracts are closed out or rolled over into the next contract before maturity, and the volume of securities actually delivered was de minimis.

For example, the middle left panel graphs for the March 2002 contract the open interest in blue. With 15 days of trading left, open interest was about $40 billion equivalent on the 10-year futures contract. Over the next few days there was a slow decay of open interest, as traders closed out positions or rolled them into the next contract. Only a tiny amount was actually settled. And those with short positions had no trouble borrowing the August 2010 security, which was the CTD into this contract. This was the normal state of affairs.

However, as the markets have grown, some large market participants have begun to view taking delivery of securities as a viable option compared to the alternative of slowly building a position in the cash market. Other traders—perhaps more opportunistically—have noted the disparity between the peak open interest and the relatively small issue size and may have concluded that there was an increased possibility that the shorts might have to deliver securities other than the CTD.

The center middle panel graphs the situation in June. Open interest decayed very slowly as those with long positions in the futures market did not find it profitable to roll their positions. Instead they took delivery. As the shorts realized they would be forced to deliver, there was a scramble to find the February 2012 security. In the event, the shorts were able to find enough of the CTD—about $14 billion—to fully satisfy delivery obligations, but the experience fostered conspiracy theories and the press articles that followed about a possible squeeze.

The September contract, which has two days of trading left, is proving equally challenging. As shown in the middle right panel, the open interest with 15 days of trading left was an elevated $70 billion or so; and the decay has been slow, suggesting that the longs would trigger a multi-issue delivery. In the past few days, the open interest has decreased, but the possibility for a multi-issue delivery remains.

The CTD in this settlement cycle is the August of 2012 security. As one would expect, this issue is hard to find and trading very special in the repo market. The bottom left panel shows in blue the overnight repo rate for that security, which has decreased from about 3 percent to zero as it became apparent that there would be a sizable delivery into the contract. As the security was “boxed,” it has all but stopped trading in the repo market, and fails in the issue jumped to more than $90 billion and yesterday they were more than $110 billion. From previous experience, those fails should clear up very quickly after the contract settles.

So, has this flurry of activity affected the cash market or the shape of the yield curve? All indications are that the answer is no. The bottom right panel graphs notes in the 5- to 10-year sector as of late last week. The red dot is the August of 2012 security. It is trading slightly rich to the curve but not disproportionately so, and it doesn’t seem to be affecting neighboring securities.

The Chicago Board of Trade has instituted position limits for individual participants during the last 10 days of trading, beginning with the December contract. Whether that will alleviate the problem or will shift the pressure elsewhere remains to be seen.

Mr. Chairman, once again there were no foreign operations in the period. In that regard, I want to note that this coming Thursday will mark five years since our last intervention. I will need a vote to approve domestic operations.

CHAIRMAN GREENSPAN. There is obviously some perceived advantage in taking delivery of the securities rather than just going into the market and purchasing them. The sort of non-conspiratorial view is that a lot of people think something is going on and, therefore, they might as well sit and accept delivery even though that was not their intention when they bought the futures. What do you know is going on? We certainly know who the participants are—or at least the Exchange knows. What have you learned?

MR. KOS. Well, I'll let Bob Elsasser fill in some texture here. Certainly, larger investors are more active in the futures market and are using those contracts in more ways than they had, say, 10 or 15 years ago. So the prospect of a—

CHAIRMAN GREENSPAN. Is this Fannie and Freddie disproportionately by any chance? Obviously, they do use the securities.

MR. KOS. Yes, but I'm not specifically referring to them. So, as these larger entities have become more active in the futures, for them the prospect of buying a multibillion dollar position through the futures market is not daunting. It's something that they're easily capable of doing, whereas probably 15 or 20 years ago taking on a very large position and financing it might have been a task. So I think that's part of the story.

Second, going into the cash market and building a multibillion dollar position might take a very long time. You might move the price against you, whereas in the futures market there's a lot of liquidity and in some ways it could be done more easily. Now, that's something about the trading dynamics. But as you point out, if people think something is happening—if one trader thinks that somebody else is going to be taking delivery—then they might get on the bandwagon. They might add to their own positions in the hope of getting some of those cheaper securities.

CHAIRMAN GREENSPAN. Instead of a scheduled close-out.

MR. KOS. Yes. Now, there were some other dynamics this summer that I don't want to get into having to do with position limits that the Board of Trade instituted, which affected the situation at one point. But on the whole, yes, if you had intended to close out a position, you might be more inclined to take delivery if you observe the large open interest.

MR. REINHART. Another point I would make, Mr. Chairman, is that the contract allows you to make delivery of any securities maturing between 6½ and 10 years. The Chicago Board of Trade has a set of adjustment factors that are appropriate when the yields are at 6 percent. And if the yield curve were flat at 6 percent, any of those securities maturing between 6½ and 10 years would be perfect substitutes. So any small movement in the cash market would immediately mean that you could bring in another security to make delivery. But yields in that sector are well different than 6 percent now, so the cheapest-to-deliver security is more distinct. And you can get more movement in the cash market without it spilling over to the next security or the security after that. So in that sense, the natural arbitrage that the basket of deliverable securities is supposed to provide is not working as well, because the adjustment factors by which the settlement price is multiplied are out of kilter with the prevailing level of yields.

CHAIRMAN GREENSPAN. Yes. I'm rather fascinated by the open interest being higher, as you get close to the end of the contract, than the total stock of the issue. That's the counterpart of what used to be the old corn squeeze. The same guys are doing it—

MR. REINHART. Right. And they used to trade May Maine potato futures when there were no potatoes in Maine in May. [Laughter]

CHAIRMAN GREENSPAN. They did that all the time. [Laughter]

MS. MINEHAN. Is this what the Treasury is looking at? Or is it something else that the Treasury has its task force studying?

MR. KOS. Well, the Treasury did issue a large-position report request last week for this particular security. So, those with large positions will have to report that by a particular date—it's sometime this week.

MS. MINEHAN. So they are looking at this situation?

MR. KOS. I know that they're concerned about the situation, and there was certainly a signaling effect perceived by the market when the Treasury issued that request for large-position reports. We saw some decay accelerating right after that request, so perhaps some of the longs took that as a signal that they should reduce their positions.

CHAIRMAN GREENSPAN. Further questions? If not, would someone like to move the ratification of the transactions by the Desk?

VICE CHAIRMAN GEITHNER. So moved.

CHAIRMAN GREENSPAN. Without objection, they are approved. We now move on to the economic situation. Karen Johnson and David Stockton.

MS. JOHNSON. Thank you, Mr. Chairman. Spot prices for crude oil were especially volatile over the intermeeting period, as uncertainty about the consequences of possible hurricane damage, along with other risks, drove up prices before Katrina hit the Gulf shore and as evolving expectations of the near- and medium-term implications of the storm damage induced fluctuations in the weeks following Katrina. In the last few days, concerns about Tropical Storm Rita have been added to the mix. As has been our practice, we again relied on the futures markets to sort through the uncertainties about crude oil supply and demand over the forecast period, and our projection of WTI [West Texas intermediate] prices through the end of 2007 is drawn from the futures curve as of September 12.

The complexities of Katrina's effect on energy prices are such, however, that specifying the WTI price still left unanswered a number of questions about related prices and quantities, both for the global outlook and for the U.S. economy. With normal U.S. refining capacity only accounting for roughly 80 percent of U.S. demand, and with four refineries in the region still closed, we have projected a partial substitution of refined products for crude in U.S. oil imports in the near term. In addition, with global refinery operations already about at capacity, at least in terms of refineries capable of producing products that meet U.S. specifications, there is no scope for U.S. demand to draw upon global supply without having an impact on price. As a consequence, prices for refined products abroad, particularly for gasoline, have risen. We have assumed that all of the refineries will be operational by the beginning of 2006.

U.S. crude oil production in the Gulf remains at about 50 percent of the level before Hurricane Katrina, with some of this reduction offset by release from the Strategic Petroleum Reserve. We expect that repairs to the damaged facilities will occur over time and have incorporated into the forecast a gradual recovery that is completed early next year. Consequently, we have bumped up our projection for crude oil imports in the first quarter to account for the transitory shortfall. The net effect of these developments is that we have raised our projected price for spot WTI oil by $1.40 per barrel in the fourth quarter of this year and by $1.80 per barrel next year. However, in the near term we have raised our projection for the U.S. oil import price by more, $2.60 per barrel in the fourth quarter and just below $2 per barrel in the following quarter, to reflect the change in mix toward imports of refined product and the rise in product prices as well as crude prices. The net result is a forecast for the oil import bill that is notably higher in the near term, but is less so by the end of next year.

Other elements of the external forecast that were affected by Hurricane Katrina include the shipments of non-oil goods into and out of the United States through the region's port facilities. The immediate percentage impact on exports is judged to be a bit larger than that on non-oil imports, as imports have greater flexibility to be diverted to other ports. The port facilities are reopening quickly, and these effects, particularly on a net basis, should be small. In addition, the current account balance will be positively changed by receipts by U.S. insurance firms of payments owing to reinsurance abroad and, to a lesser extent, by aid contributions from other countries to the U.S. economy. These items will appear as transfer receipts in the nontrade portion of the current account. On balance, this range of impacts from Katrina is expected to be transitory and of limited magnitude.

The outlook for foreign growth and inflation is, of course, also influenced by the change in our forecast for global energy prices and by the changes projected for the U.S. economy. In the near term, these two factors work in the same direction to lessen foreign growth. Over a longer horizon, with U.S. growth projected to rebound next year, they are partly offsetting. Upward pressure on inflation from energy prices is a growing concern of central banks and officials abroad. The event of Hurricane Katrina reinforced the trend toward elevated oil prices that has been unfolding over the past few years. In some foreign countries, particularly emerging-market economies, officials have controlled domestic energy prices to blunt the effects of higher global prices. As elevated oil prices have continued, foreign officials have started to remove or lessen these subsidies, with consequent effects on inflation pressures. David will continue our presentation.

MR. STOCKTON. In adjusting our forecast of the U.S. economy to incorporate the consequences of Hurricane Katrina, we were forced to rely more on economic judgment and assumption than our models. Perhaps that is just as well, given what I heard last month in Jackson Hole. At various turns, the staff was criticized for building models that bear no resemblance to economic reality and praised—or at least I think it was praised—for then having the good sense to essentially ignore those models through the wise use of add factors.

That mixed message reminded me of a story told by Nobel laureate Ken Arrow. During World War II, Arrow was assigned to a team of statisticians to produce long-range weather forecasts. After a time, Arrow and his team determined that their forecasts were not much better than pulling predictions out of a hat. They wrote their superiors, asking to be relieved of the duty. They received the following reply, and I quote "The Commanding General is well aware that the forecasts are no good. However, he needs them for planning purposes." [Laughter]

I'll have to admit that we face more than the usual challenges in the period ahead. Over the next few months, I suspect that we will encounter considerable difficulty extracting the macroeconomic signal from economic data that could be profoundly affected by the consequences of this disaster. But as we set ourselves to that task, it will be important not to lose sight of the fact that the larger influences of monetary and fiscal policy, financial conditions, and global energy developments, rather than the hurricane, are likely to dominate the macroeconomic outcome a year hence.

In that regard, while it might seem like ancient history and a world away, most of the macro data that we received since the August Greenbook provide a window on how these forces were shaping economic developments prior to Katrina. In brief, we saw the balance of the incoming information as broadly consistent with our view that the economy had been growing at a brisk pace early in the second half.

In particular, the household sector seemed especially buoyant. Sales of motor vehicles were receiving a considerable boost from the employee discount programs. And last week's retail sales report for August suggested consumer spending excluding motor vehicles had been well maintained. Meanwhile, housing activity remained strong, with both starts and sales holding near historic highs. I should mention that this morning's release showed housing starts in August remaining above 2 million units at an annual rate—close to our expectations. Even the external sector appeared poised to make a contribution to current-quarter growth, rather than being the drag we had earlier anticipated.

But there were some disappointments as well, mostly focused in the business sector. Growth of factory output has slowed noticeably, with manufacturing IP [industrial production] having averaged increases of 0.2 percent in recent months—half the pace seen late last year. We have interpreted that deceleration as reflecting efforts by firms to bring inventories into better alignment with sales, and we expect some pickup in activity as this process plays out. But as yet, we have few hard data to suggest a marked improvement is close at hand.

The incoming information on new orders and shipments for nondefense capital goods also has been on the soft side of our expectations. Spending on computers looks to be on track for a 16 percent increase in the current quarter, a relatively modest gain for this component and well below our previous projection. And outlays for capital goods outside of the tech area have been about flat since the turn of the year. As you may recall, equipment investment was surprisingly strong in the second half of last year, and we may now be experiencing some payback for the earlier strength. It is also possible, however, that higher oil prices could be damping business confidence, raising uncertainty about the outlook and making firms more reluctant to invest. And, of course, we can't rule out the possibility that the recent weakness in equipment spending reflects a dearth of profitable investment opportunities, which would raise questions about the underlying thrust of aggregate demand going forward. For now, we think it is too early to reach that conclusion, but the recent softness here certainly raises that risk.

Putting these pluses and minuses together, we thought the economy was on track for growth in the vicinity of 4 percent in the second half of this year. We were encouraged in that interpretation by the ongoing improvement in labor markets. Gains in private payrolls had averaged about 175,000 in recent months, and with the readings on initial claims remaining in the low 300,000s, a continuation of those increases seemed likely.

Looking a little further down the road, there had been the usual crosscurrents in the key factors influencing the contours of our forecast. Oil prices continued to rise, siphoning off even more purchasing power from households. But, we were surprised yet again by the strength in housing prices, with the OFHEO [Office of Federal Housing Enterprise Oversight] repeat-transactions index up about 13 percent in the year ending the second quarter. The associated upward revision to housing wealth more than offset a slightly weaker stock market to boost overall household net worth over the projection period. All in all, it seems likely that, absent the hurricane, we would have been presenting to you a forecast that was very similar to that in the August Greenbook.

It is, of course, an understatement to say that Katrina creates complications for our forecast—some that we have confronted in the past and some that are unique to this episode. There has been a sizable destruction of the capital stock; we have assumed that loss to be about $75 billion, but at this point any estimate must be considered a guess subject to substantial revision. There has been an unprecedented displacement of people and activity from the Gulf Coast region. Important links in the nation's transportation network have been disrupted. And of perhaps greatest concern from a macroeconomic perspective, the economy has been subjected to a further energy price shock at a time when households and businesses already were having to cope with the effects of nearly two years of steadily climbing prices.

As we noted in the Greenbook, our assessment is that, with a few wrinkles, the influence of Katrina on economic activity will trace out a pattern similar to that we have seen after previous disasters. Output will be depressed in the near term by the disruptions to production in the region and elsewhere. As those disruptions ease, activity begins to recover. And then once rebuilding efforts really get under way, output receives a considerable boost. In reality, aspects of all three of these phases operate simultaneously—but with different intensities as time passes.

In that regard, one can't fail to be impressed with how rapidly some aspects of the recovery process already are occurring—in many cases, faster than was initially expected. Some evacuees are finding employment elsewhere; many firms are either temporarily or permanently relocating offices and employees; and workarounds are being found for some of the transportation bottlenecks that have developed.

Still, there is no denying that the disruptions remain substantial. About 15 percent of total U.S. oil production and 7 percent of U.S. natural gas output remain shut in at facilities located in the Gulf. As Karen noted, four refineries are still off line and full recovery may not occur for several more months. Activity in the chemical, shipbuilding, and food processing industries—to name just a few—remains seriously impaired. More broadly, business has been disrupted throughout the region. And while many businesses have been effective in developing workarounds, these adjustments are often less efficient and more expensive than before.

In our forecast, we have assumed that these disruptions pull down the level of activity in the third and fourth quarters, lopping more than ½ percentage point off the annualized growth of real GDP in the second half of this year. Accompanying this hit to growth, payroll employment is expected to drop 250,000 in September—a shortfall of about 400,000 relative to trend. Employment is then expected to stage a gradual recovery in subsequent months.

Although rebuilding activities are already under way, those activities don't really show through with any macroeconomic force until early next year. In that regard, the draining and environmental cleanup of New Orleans will slow the rebuilding phase compared with past hurricane recoveries.

The dynamics of the recovery process will be influenced importantly by the response of the federal government. We have assumed an $85 billion fiscal package, about $70 billion of which is spent over the next two years. This spending is projected to provide a powerful counterbalance to the depressing effects of Katrina and is a chief reason why activity is projected to approach the pre-hurricane baseline by the middle of next year.

Our assumed federal spending package might seem small compared with the $200 billion figure that has gained such attention in recent days. However, we think our package is appropriately scaled to our estimates of the extent of the damage that has occurred and the dimensions of the economic disruptions. Even with that scaling, I should note that we have the federal government footing the bill for a vastly larger share of the losses than is typical—nearly dollar for dollar in our forecast relative to the 25 percent reimbursement rate that is more the norm.

One obvious risk that you confront is that the hurricane, viewed from a macroeconomic perspective, could prove less disruptive to activity and that a massive dose of fiscal stimulus is about to be layered on top of an economy that was already nearing its productive limits. In those circumstances, there is the potential for some overshooting in output with accompanying upward pressure on inflation.

But Katrina has amplified some of the downside risks to the outlook as well. Prior to the storm, we were already concerned about the cumulative effects of the rise in energy prices over the past two years. As we noted in our briefing yesterday, there is at least some evidence that sharp jumps in the price of oil have at times in the past been associated with outsized effects on consumption. With the retail price of gasoline having risen above $3.00 per gallon in much of the country, there is certainly cause to be concerned. As a macro guy, I hope that those of you involved in supervision haven't been too hard on home equity lending, because pretty soon people are going to need a loan to fill up their SUVs. [Laughter] Moreover, the price of gasoline is not the only drain on consumer budgets. Households will face another hurdle this winter when the bills for heating oil and natural gas come due. So this source of downside risk seems likely to be with us for some time.

For now, there simply isn't much hard evidence to suggest any nonlinear response is gaining traction. As I noted earlier, consumer spending has continued to surprise us to the upside. Although last Friday's report on sentiment showed a substantial deterioration, that drop closely matched our expectations. The forecast is predicated on a gradual recovery in sentiment by the end of the year. If that were not to occur, we would become more concerned about a greater retrenchment in consumer spending.

Of course, the cumulative effects of higher energy prices also pose some nonlinear risks to the inflation outlook. Three channels, not entirely independent of each other, would seem to be of greatest concern: a broad-based breakout to the upside in inflation expectations; an intensified push on the part of workers to restore real wages for the ground lost to higher energy prices; and an effort by businesses to more aggressively repair damage that may have occurred to profit margins from rising energy costs.

If one were inclined to worry about the potential for a more pronounced deterioration in inflation expectations, last Friday's preliminary read from the Michigan survey for September might be unsettling. Median year-ahead inflation expectations moved up to 4.6 percent, the highest level since 1990, while expectations for the next 5 to 10 years edged up to 3.1 percent, just above the narrow range in which they have held over the past several years. However, we suspect that the enormous increase in gasoline prices that took place over the first half of the month was a contributor to this development, and we would counsel waiting for a few more readings before concluding that there has been a consequential deterioration in inflation expectations. That view receives some support from TIPs [Treasury inflation-protected securities]-based measures of inflation compensation, which have also increased, but by much less than the survey reading.

We also don't see much evidence that we are on the verge of a substantial acceleration in labor compensation motivated by efforts of workers to restore real wages. Abstracting from the surge late last year that we believe was related, in part, to stock option exercises and bonuses, the growth of hourly labor compensation has been reasonably stable over the past few years. And while the labor market has tightened up, we don't hear much from our business contacts to suggest that the competitive environment has changed in a way that would have altered their ability or inclination to grant substantially larger pay increases in the period ahead.

Finally, there is a concern that the steep rise in energy costs has placed the margins of some businesses under pressure and that efforts to restore margins could result in more upward price pressure than is currently anticipated in the forecast. To be sure, there is considerable heterogeneity across industries. However, as best we can judge, in the aggregate, the margins of nonfinancial non-energy producing corporations have reached high levels over the past couple of years despite pressures from energy costs. Hence, businesses either have been reasonably successful in passing through higher energy costs or have implemented other offsetting efficiencies. Looking forward, we think that we have made adequate allowance for further pass-through of higher energy prices, but we acknowledge that there are considerable uncertainties about the magnitude of that effect.

Much like the data on real activity, the incoming information on the price side provides little evidence of an emerging nonlinear response to higher energy prices. Indeed, the recent figures on core inflation have been both well-behaved and to the low side of our expectations. On the basis of last week's CPI, we estimate that core PCE prices were up 0.1 percent in August and are on track for an increase of around 1¼ to 1½ percent at an annual rate in the third quarter. Moreover, prices of core intermediate materials have actually been falling over the past four months after the steep run-up experienced last year. We are anticipating some acceleration in core consumer prices and in core intermediate prices in the months immediately ahead, owing to the end of the auto incentive programs and the pass-through of higher energy prices. But we have built these effects into the forecast using our usual linear models as guides, rather than incorporating any outsized effect.

While we do not believe that we have yet experienced nonlinear effects on either output or inflation, any further upward movement in energy prices would certainly intensify the risks of such outcomes. With another storm moving toward the Gulf, we will be watching The Weather Channel closely in the next few days.

Before closing, I would like to draw your attention to some substantial changes in both the content and format of the Greenbook's green sheets that we implemented this round. As far as we can determine, this is the most significant change in the forecast presentation in a few decades. We recognize that we may have imposed some transition costs on those of you who were used to the previous format. But our objective was to make the presentation more user-friendly and to make the forecast and how it has changed between rounds more transparent to you and your staffs. Obviously, we are open to suggestions for further improvement and, if past is prologue, we should be able to work them into the Greenbook at some point in the next few decades. [Laughter]

Karen and I will be happy to take your questions.

CHAIRMAN GREENSPAN. Questions? President Lacker.

MR. LACKER. Yes. I want to ask you about the effects of Hurricane Katrina on output and potential output. You read off a list of effects. Obviously, there has been some destruction of capital stock. Workers have been displaced; there has been a break in relationships between them and their employers, and obviously there will be some sort of search process to reconnect them with the labor market. And then there are the transportation disruptions. Those all seem to me like factors that affect productive capacity, and I would have expected them to appear as changes in potential output. So I'm curious as to why output changes by more than potential.

MR. STOCKTON. The part that we actually incorporated into our estimate of potential output was the destruction of the capital stock—the $75 billion drop there. That is just such a tiny fraction compared to the overall size of the capital stock that, in fact, it rounded to a tenth on the capital intensity contribution but rounded to not even a tenth on overall potential GDP. So we built that part in.

Now, it is true that what we are going to be experiencing in the next few months will have combinations of demand and supply effects, and we didn't build the temporary disruptions in the supply chain into our estimate of potential GDP. We could have. You're right; in some sense that is a temporary reduction in supply. So we wouldn't necessarily tell you to take the output gap estimates in the second half seriously in terms of the notion that a lot more slack has opened up in the economy.

On the labor market side, we actually did think hard about whether or not this event would be significant enough to raise structural unemployment. Again, our best guess is that while a little of that may be going on, it isn't large enough to round to even a tenth on overall structural unemployment. If all those people we think have been displaced became structurally unemployed, that would be an increase of a couple of tenths in structural unemployment. But, in fact, we expect that by early next year that will not be a significant factor pushing up the natural rate of unemployment. So I think we've tried to contend with those issues. As a matter of presentation, we did build some of the things you raised—for example, the transportation bottlenecks—into our estimate of potential output.

MR. LACKER. Well, the reason I ask has to do with high-frequency movements. You used the word "structural" there, which tends to be associated with slowly moving trends—variables with bars over them or that kind of thing. And in an instance like this, I think a key factor is the extent to which some high-frequency or rapid change in productive capacities may have taken place. So, I question sort of letting it all be in the output gap and then saying, "Well, in two quarters the output gap will be back to where it was." Given the way the output gap appears in theoretical models that we use to teach people how to think about policy, this would invite them to think about policy in the current period differently than if the empirical estimate had potential changing fairly sharply along with output in the current period. That's the reason I ask.

MR. STOCKTON. Obviously, in terms of the transmission of that output gap in thinking about inflation, our Phillips curve in essence is so flat and that slightly higher output gap is so briefly encapsulated in the forecast that it doesn't really have any noticeable effect. But we did think about how we should communicate the consequences of the supply disruptions in potential output. And again, we just decided on reflection that we would incorporate the part that was the capital stock destruction but not necessarily other supply disruptions that are admittedly going to be occurring in the next few months.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I wanted to ask you a question about inflation expectations, which is a key part of the forecast, as you described. In the Greenbook, you say that you assume "surging energy costs and other factors have caused inflation expectations to drift up since 2003." And then you have the alternative scenario in which inflation expectations deteriorate more sharply than in the baseline forecast. Could you just elaborate on this a bit? What are the other factors? And what's the time horizon you're talking about for these expectations to play out? Also, how does this work its way into the wage and price dynamics in the economy?

MR. STOCKTON. In terms of how the price forecast has evolved over the last couple of years, the single biggest factor is the higher energy prices. But we've also had to contend with an acceleration—of modest dimension, but an acceleration—in import prices and an increase in other materials prices. So, in terms of decomposing the sources of revision to our core consumer price inflation numbers, those are the main contributors. Beyond that, we haven't really seen any other innovations on the cost structure on the side of businesses that we think have lifted core prices.

But in our view, the persistence of higher headline and core inflation over the last few years will cause—and we do think there has been a little bit of evidence—some small deterioration in inflation expectations, and we have built that into our forecast. The way that shows up, as I think you were hinting, comes through some prospective acceleration in nominal hourly labor compensation. We haven't seen it yet to any significant degree. But in our forecast we think there will be some indirect effects working through higher labor costs going forward.

As for the time dimension over which that will occur, we think that process is probably under way. There may be some evidence of it in the TIPS-based measures that Dino cited, and the survey evidence suggests that the process may now be beginning. We're starting to see a small but gradual erosion in inflation expectations, and that persists through our forecast horizon. Now, looking farther out, with energy prices projected to start declining and headline inflation coming down from the 3-plus percent area to more like 2 percent going forward, we would expect that process to reverse a bit in the period beyond the current forecast horizon. So those inflation pressures probably will diminish a little at that point.

MR. MOSKOW. So you have core inflation actually going up next year, in 2006, and then it comes down a bit in 2007.

MR. STOCKTON. Core PCE goes up to 2¼ percent next year and then comes back down to 2 percent, as the indirect effects of lower energy prices begin to work through. And then we'd probably see some beneficial effects in alleviating inflation concerns—this would be beyond the forecast period—which would help push inflation down a bit further.

MR. MOSKOW. Thank you.

CHAIRMAN GREENSPAN. I know we use the various measures of inflation expectations as a critical variable, which presupposes that the market has a superior capability of anticipating change than normal forecasting procedures. The mechanism, as you point out, through which we think inflation expectations largely reflect themselves in higher prices is the wage bargaining process. Have we done much work in the area of using various measures of inflation expectations directly as a forecast indicator of inflation by just creating a reduced form evaluation? What is the record on that, if we in fact have looked at that?

MR. STOCKTON. Surprisingly, or at least surprisingly to me, the Michigan survey has had a reasonably decent record over many years—better than you might think.

CHAIRMAN GREENSPAN. Do you mean on their long-term inflation forecast?

MR. STOCKTON. Well, on the year-ahead inflation forecast. The longer-term forecast actually has not been around long enough to develop a lot of observations on that. The evidence is mixed when you more or less throw all of the determinants of inflation into an equation. In fact, it's a matter of some controversy among the researchers on the staff as to whether or not the Michigan survey has any additional explanatory value. But I recognize that you were just referring to the straightforward inflation—

CHAIRMAN GREENSPAN. No. I wasn't referring to only the Michigan survey, but to all of the various measures we have of inflation expectations, including basically just the level of interest rates as such. What I'm trying to get at is that we make presumptions about the insight of markets into the future that none of us personally has. I'm raising the question: Is there really information there? In other words, can we take the level of inflation expectations, however defined, as of today and read into it with some degree of accuracy what the actual inflation outlook is likely to be?

MR. STOCKTON. Our indexed securities markets have not been around long enough to develop a really significant track record. I think the evidence on the indexed securities from other countries is that there is information content in those expectations, but I don't know what their general track record has been.

MS. JOHNSON. Yes. They have been around the longest in the United Kingdom and in the early years indexed securities were very clearly held in response to the tax incentives. So there was a certain disconnect; there wasn't a notion that people who viewed those expectations as differing from their own would trade and the market would settle into reflecting their expectations on the margin.

I'm not aware that people generally view that as a solid predictor, but I would say that we probably should look into that more. We haven't done our own independent work on that.

MR. REINHART. There are two aspects of the TIPS market that make it hard to do such comparisons using those securities. The first is that we think there were significant liquidity effects, as in the United Kingdom, early on. Our estimates of the liquidity premium have come down a lot. That is, TIPS were a real bargain in the first two or three years of trading, and it is only now that they probably more closely reflect the macro environment.

The second thing is that what we measure is inflation compensation, and inflation compensation is inflation expectations plus an inflation risk premium. And the inflation risk premium could vary over time. Indeed, our models would think that part of the reduction in long-term rates has been a reduction in the inflation risk premium. So that's another reason why it would be hard to read those as predictors of future inflation.

CHAIRMAN GREENSPAN. Several years ago I recall that we ran a correlation with the gold price against levels of inflation. We actually came out with some forecasting capability. Has that been rerun in recent years?

MS. JOHNSON. Not by us.

MR. STOCKTON: Not by me. I think we did that at your request. [Laughter] And we were not so convinced by the evidence that we've maintained that particular series for forecasting.

MR. REINHART. I think you actually alternated your requests—asking each one of us in turn—and we haven't updated that in a long time.

CHAIRMAN GREENSPAN. The problem is that it kept coming out, for reasons I can't understand, with some information capability. The reason I raise it, as you know, is that we have a big, fat spike here, and I don't know what to make of it.

MS. JOHNSON. Yes, a 17-year high. I volunteer to run the gold price. [Laughter]

CHAIRMAN GREENSPAN. Provided that you don't tell anybody you're doing it!

MS. JOHNSON. Right.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Two points—a comment and a question. I'm actually somewhat surprised at the answers you got on your last question, Mr. Chairman, because staff members from both R&S [Research and Statistics] and Monetary Affairs did a series of memos for me on just this question, and I talked about the results at the last meeting. We found, in terms of root mean squared prediction error, that the staff forecast seemed to be the best forecast of one-year-ahead inflation. But in the last four or five years, trying to control as best our staff could for some of the liquidity effects and risk premium effects that Vincent talked about, our finding was that TIPS compensation turned out to be a somewhat better predictor even than the staff model. The other forecasts turned out to be much worse than either of the two I just talked about. So I think we don't know a lot, but we know a little bit. Maybe we could get that material circulated again.

My question, though, is not on that point. Dave, you threw me off a bit on the question of where we now stand on compensation because in the Greenbook you said that the downward revision in the P&C [Productivity and Cost] measure of compensation per hour was smaller than expected and, "we now view more of the surge in 2004 fourth-quarter compensation as having been permanent and less as a reflection of transitory factors such as stock options." I thought what I heard you say in your oral presentation was that the pendulum had swung back a little.

MR. STOCKTON. Indeed, we did not get as much downward revision as we were expecting and, in essence, we built into this forecast more persistence to the level of compensation. But the growth rate of compensation as we moved into this year still looks like a big spike, and the growth rate going forward hasn't been that much higher. So, I would say that obviously we were not as optimistic as we were last time around. We had to give that some weight, but we didn't necessarily see those data alone as signaling an ongoing acceleration in labor compensation. The two other pieces of evidence we bring to bear on that are the ECI [Employment Cost Index], which has shown no acceleration, and average hourly earnings, which also have not shown any additional pickup. So that suggests to us that we're probably on the right track with regard to the sources of the surge late last year. Speaking more broadly about overall labor cost pressures, we're still not interpreting the current situation as one of ongoing sharp acceleration but rather just a reflection of a higher level last year.

MR. FERGUSON. Great. Thank you.

CHAIRMAN GREENSPAN. I think the ECI is a very interesting issue. Each March, as I recall, we get data on actual dollar amounts of compensation of the various types that are in the ECI. And I believe we used to take the March data year-on-year and try to determine what part of the ECI was a mix change.

In view of the quite extraordinary divergence of the ECI and the compensation per hour data, have we looked at those March data recently to see whether the aggregate dollar compensation per hour number that they pick up for the month of March, which is conceptually consistent with the ECI, moves with aggregate compensation per hour that we pick up from the P&C measure or others?

MR. STOCKTON. I don't recall whether the ECI data, when we looked at it this spring, actually resolved the tension between the various measures. David Wilcox indicates that it did not. Okay. So we have looked at that, but—

CHAIRMAN GREENSPAN. It is conceivable, for example, that the March compensation data in this series actually show the same pattern as the total, which would imply a very significant internal shift change. And that would be a fully comprehensible explanation because in the past they have not been all that close

MR. STOCKTON. Well, when we looked at it, that didn't in fact resolve the tension between them.

CHAIRMAN GREENSPAN. So we didn't learn anything from there. President Fisher.

MR. FISHER. Mr. Chairman, I have two questions. One is to Karen with regard to the energy futures markets. Have we seen any change in the dynamics of those markets during the trading activity—higher numbers of contracts or size changes—from what we saw pre-Katrina?

MS. JOHNSON. I have not looked at that enough in the last few days to give you an answer to your question. There have been, obviously, over the past year or more, periods of time in which the nature of trading in the energy futures market seemed to be evolving. Indeed, energy futures came to be thought of as an asset class for which hedge funds and investment banks would open up departments and would trade aggressively. It was a profit center, so why not? I don't know that that has ended.

But some of the other instances about which people were most concerned died down and I think the number of contracts that were thought to be noncommercial would ebb and flow as time went by. The fact that the price came back down helped because there was a time when it looked somewhat like the Japanese stock market in the late 1980s: It was just about a sure bet that if you could buy some of the stuff, you would make money. And that went away as the price developed some two-way fluctuations and so forth.

But to be honest, I don't have the information to give you about whether post-Katrina we have seen a real change. It was certainly startling how quickly the price moved yesterday when it became clear that Rita was going to cross into the Gulf. That volatility may reflect more traders of different backgrounds acting more quickly. I wouldn't interpret that as indicating that somehow those movements are superficial. I think there is a genuine increase in the extent to which people believe the global supply of energy is vulnerable to random events and has very little buffer capacity in it. Those things, I think, are real.

Whether on a given piece of news the trading is mostly done by hedge funds or is mostly done by people who have a genuine need to hedge in the commercial sense, I don't think we know. But there is a change in tone. People feel that the supply capability both at the refinery level and at the extraction level is not there to meet the projected demand and that we're going to be on a bit of a knife's edge. And they believe that developments on the political side in Russia or in Venezuela could easily tip the balance. I think that is for real.

MR. FISHER. The reason I'm curious about this is because I think we have been struggling with trying to determine what the speculative element is in those markets. Clearly, those who did speculate for whatever reason on an event, such as the one you just mentioned, have been rewarded. But sometimes the complexion of those people who then enter the market changes; the smart ones get out when they've been rewarded and they're replaced by what we used to call the mullets who swim in smaller contracts. I'd just be curious to see what the change in the dynamics is, if indeed a change is taking place at all. The other question—excuse me?

CHAIRMAN GREENSPAN. We do know something. We know that subsequent to Katrina the noncommercial interests are net long and the commercial interests have turned net short.

MR. FISHER. Yes.

CHAIRMAN GREENSPAN. That in a sense gives you some speculative suppression because they're already out. And the question is the big surges which, as you know quite well, occur when somebody is short and they cover it and they go long. Currently they're already long. So it may be that part of the pressure is out of this market, although the market behavior yesterday had a tone of "we've been burned once, we're not going to be burned twice." It's correcting in part today, but I've never seen a response that quickly on something that could be quite speculative. There's a reasonably good chance that Rita won't turn into a category 3 hurricane, or if it does that it will end up in northern Mexico. It's really quite surprising the way that market functions.

MR. FISHER. Again, as we talked about a couple of weeks ago, the point is the volatility—not so much the direction—and yesterday reinforced that concern. I'm just trying to get a sense of these dynamics.

CHAIRMAN GREENSPAN. Today the gasoline price I last saw on the spot market, after being up over 20 cents yesterday, was down 10 cents. Today it's fairly stable.

MR. FISHER. My other question is about the $85 billion fiscal stimulus assumption. Is that based on rational expectations of, say, the women and men who sit around this table? Or is it based on some soundings of the politicians on Capitol Hill? What is the source of the $85 billion figure?

MR. STOCKTON. I think it was a little bit of both. As I indicated, the scale of that package we thought would be sufficient in some sense, given our estimates of the amount of damage that has occurred, to provide both the wherewithal to fund substantial amounts of the rebuilding and to provide significant offsets for income losses that were associated with the disruptions.

The $200 million figure which, as I mentioned in my briefing, has gotten so much attention recently actually came into play after we closed the Greenbook. But even if that had come up before, I don’t think we necessarily would have altered our projection significantly. Our reading of that is that if the figure comes in that high, it’s more likely to be because it includes the funding of some very long range and expensive construction projects around New Orleans—for example, the significant strengthening of the levees to a category 5 level of protection. That spending would occur outside the window of the current forecast projection.

But obviously there are risks, and if I had to be honest, I’d say the risks are probably more to the upside of the figure that we have built into this forecast than the downside, given the current political climate in which the general attitude seems to be “we’ll spend whatever it takes to make this happen.” We illustrated a little bit of that in an alternative simulation that we showed in the Greenbook in which the disruption effects are relatively small and you get a much bigger fiscal stimulus. The results associated with that are a drop in the unemployment rate to below what we would think of as the natural rate and a bit higher inflation pressures.

MR. FISHER. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. Karen, do we know anything about the remaining capacity—or perhaps I should say, the will and capacity—of those other countries that have substantial stocks of refined products to release them to us if we had another significant supply shock that affects refined product capacity?

MS. JOHNSON. Well, I can’t speculate on how the domestic politics of this would play out in some of those countries. The IEA [International Energy Agency] authorized the sale of 60 million barrels from the strategic reserves of its members—30 million from us and 30 million from the others. Most of what we were going to release from the strategic petroleum reserve was crude; that's all we store. And in the bidding that took place for that oil, as of two or three days ago, 11 was the number of bids that were accepted, not 30. So there's some question in the minds of our staff experts on this about whether that means a second round and a third round will be done to eventually work up to the 30 million. Or is the thinking that maybe they don't need to do all 30 million? Of the 30 million that is to be done from non-U.S. stocks, much of that will be product rather than crude oil, and much of it will simply be sold into the market. The global market for gasoline just needs more supply. It's not a question of their targeting it necessarily toward us.

So, I think what we're seeing is that they have the oil and they have the product. They could do more than what they've done, but what they've done so far has not stabilized the price. And there is political resistance in Europe. Now, I think that's a bit naive in a sense. If they don't release more, presumably the price would go even higher, right? The market is never going to be fragmented, and they're always going to feel the effect of our attempt to buy more gasoline. But there's the interplay of domestic use versus selling it into the market and there's pressure, particularly in Europe, regarding their gasoline taxes. And this is where I think the essence of the fight is being waged right now. Most people who are arguing about the long-run interests of rational energy policy in the EU [European Union] Commission and anybody who is a bit above the politics is saying, "Whatever you do, don't cut the gasoline taxes." But some of the actual governments who face the electorate a bit more directly have caved already. Others of them are going to postpone planned increases. Some of them are wavering.

If they go the route of trying to protect their domestic populations by temporarily lowering taxes and so forth, my guess is that they won't be putting the gasoline into a distribution that would appear to be bailing out the Americans at the expense of the French farmer. That isn't going to happen. They will try to protect their stocks and they will try to segment the market. So I wouldn't count on that as a big source of transitory relief on price pressure—more than we have already seen—because I think the politics of it is getting very complicated.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. David, I want to talk a little bit about how the Board's modeling incorporates higher oil prices on output produced elsewhere and imported into the United States. Is it just through import prices alone?

The reason I ask is that we've spent a lot of time talking about the fact that higher energy costs haven't really impacted us as much as other countries. We've given two reasons for it. One is that we're more energy-efficient. The second is that the output we produce is less energy-intensive. Presumably, our actual consumption hasn't shifted as much as our production, which means that more of the energy-intensive output is being produced externally and shipped into the United States. Now, that would presumably mean that energy-intensive goods would have higher prices because of the global price of oil, and import prices would go up to a greater extent than before because of the shift in mix. Yet the forecast has import prices falling. How does that all work its way through? What's that dynamic?

MS. JOHNSON. Well, regrettably it's not David's problem. It's mine. [Laughter]

MR. SANTOMERO. Maybe we'll get two answers!

MS. JOHNSON. Let me take it in two halves. I’ll talk a little about global energy use, and then we’ll come to the import price part.

We model energy demand, energy consumption, energy production, and the implied change in inventories on a global basis. And we do it using all of the information we can muster. But it is understood by the people in that world that there is a lack of good information. There has been an outcry for more transparency about energy production and energy capacity than now exists. Some of the volatility that President Fisher was speaking to derives from the fact that when the IEA makes an announcement of a change in their estimate of what demand was last year it will move the market. So, the quality of the information that is available for the global market is certainly far from ideal. And some of the countries involved, of course, are in rather troubled political areas where being transparent about anything is not in their interest, so they don’t provide data. So that adds to the complexity.

But we have an oil model and we use a lot of judgment—the add factors that David was talking about—and we attempt to account for total oil production in essence by country. It’s not that we think any individual number in that mix is going to be right in any sense, but we try to be consistent through the story. So we start with the futures curve for WTI, and we make some judgments about the spreads on things like Dubai and other oils that loom large in the global market, and we use the model to infer what the balance of supply and demand would have to be. And given that we have relied on the futures markets—basically for want of a view that we could do better than the futures market—supply becomes the residual. So we have forecasts of global demand of GDP. And we have different weights that apply to those that are the oil-using weights as opposed to the trade weights or the GDP weights that we might use other places.

Now, part of your question was how often we change those weights and how sensitive we are to the shifts in production that are taking place in the world. I can't speak to that specifically, but in general we revise our weights every year. It's not as if we have weights from 1970 and we just keep cranking away using those weights. We've gone to this variable weight approach as in the GDP and everything else. So, we specifically do at least attempt to take account of how different countries use energy versus how other things happen. We have a set of energy-using weights that we apply to world GDP, and that gives us, in essence, a different aggregate for world growth than if we were doing it for some other purpose, which we do.

So we've got a price and we've got demand, and we back out supply; supply becomes the residual. For example, two years ago when prices seemed to us to be rather high, we were inferring a need for supply to pull back in order to sustain those prices. And OPEC has played that role—Saudi Arabia, in particular. Go back and read Greenbooks from two to three years ago, and we had a story about expecting supply to contract in certain places in order for futures curve prices to be realized, as oil suppliers target prices, and so forth.

That has not been so true lately. Indeed, we've been tapping capacity increasingly over the last two years. And the notion that global supply was more than enough to explain the prices we were seeing has flipped to become a question of where we are going to get the extra supply. For a time Russia and the FSU [Former Soviet Union] were a big source of extra non-OPEC supply. That seems to have changed more recently. So, there is a supply story that tries to take these things into account that matches demand and the futures curve to give a crude oil picture. And it has to account for enough barrels to make that true. If we were to run into a real contradiction there, we would have to go back and say something to ourselves about our assessment of demand.

We take that picture, and for the United States—particularly this time more so than most—we have to ask questions about domestic capacity to supply the residual part. Would that have to be imported? And what would be the mix of those imports? So we try to make all of that fit. That leaves us then with an oil import price which can move differently than global crude prices because of the mix factor. And the oil import price is what feeds into the domestic economy and then drives the elements of pass-through and domestic production and so forth.

Now, in our forecast of import prices the oil price portion is distinct from the non-oil portion, and it is non-oil import prices that in the projection come down. Those prices have been kicked around hugely by natural gas and by non-oil primary commodities. We have now internally, but we don't put it in the Greenbook, import prices less natural gas as a check on whether we are fully incorporating what we think is happening to natural gas. But we don't have a comparable setup for the supply and demand balance of natural gas that we have for oil, and the natural gas that would be relevant, obviously, is for North America as an almost isolated market. There is liquefied natural gas on the margin. There are some imports on the margin. But we are thinking that we might have to do something about the quantity of natural gas because it's a hidden uncertainty in the overall non-oil import price, and it's uncomfortable that we haven't been able to have a better control over that.

Even so, the non-oil, non-energy primary commodities have been the big story in import prices; they caused the import prices to move up. And the fact that those futures markets are telling us that those prices have peaked or are even coming down is what lies behind our forecast that import prices are decelerating yet again—and to very low levels in 2006 and into 2007. That outlook is really a combination of what we think the non-energy futures markets are telling us about commodity prices and the maintained assumption we make about the dollar. Either of those things could change, and the forecast is completely conditional on them, with the added wrinkle of this role of natural gas that is embedded in non-oil import prices, but which probably should be separated out. Now, at least in terms of the work we do, we try to do that partially but maybe we should do it more explicitly.

CHAIRMAN GREENSPAN. Other questions? If not, who would like to start? President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Overall, the fundamentals in the Seventh District continue to improve, although we are still underperforming the national economy. Prior to Katrina, most of our contacts thought that their businesses were expanding at rates consistent with the long-run trends in their industries. One exception was the motor vehicle sector. The size of the drop in sales in August was a disappointment to automakers, but not a surprise. They also complained about the effect of gasoline prices on demand, particularly the shift in sales away from big SUVs toward more fuel-efficient but less profitable models.

When we asked our contacts about the impact of Hurricane Katrina, they reported several different kinds of effects. Some noted increased activity in response to the storm. A number of firms in our District received orders for items such as RVs, construction materials, heavy equipment, and appliances. And Ford said that they were looking at increasing their fourth-quarter production schedules to replace vehicles destroyed by the hurricane. But we also heard some concerns that Katrina was depressing demand. For instance, two of our national retail contacts noted some decline in activity, which they attributed to higher energy prices, uncertainty, and a CNN effect. High- and low-end stores were reported to be doing okay, but specialty retailers were taking a hit.

Katrina also has led to some cost increases in our District. Grain elevators are paying more to work through transportation disruptions and to dry crops in storage. We also heard concerns that the diversion of resources to the Gulf Coast will drive up the cost of construction materials and skilled tradesmen throughout the country. And several contacts noted increases in costs for fuels, fertilizer, and shipping. Of course, not all of the cost increases we have been hearing about are related to Katrina. Indeed, a major retailer and one of our temporary help contacts commented that wage pressures had increased notably at the national level.

Turning to the national outlook, the data we had in hand prior to Hurricane Katrina pointed to a solid expansion in activity. We all know how devastating Katrina was in terms of the misery it caused the people of the Gulf Coast. Nonetheless, although the uncertainty is great, the hurricane's effects on the national economy likely will be short-lived. Even in the near term, the Greenbook baseline projection doesn't have Katrina reducing GDP growth below trend; and certainly by early next year the hurricane should have a net positive effect for growth, given the large federal spending coming on line.

With regard to inflation, the July and August readings on core prices were good, but even so the Greenbook forecast for core PCE inflation next year has been raised to 2¼ percent. Last time many of us were concerned that core inflation was running at the upper end of the range consistent with price stability, and now the outlook has deteriorated. As discussed in the

Greenbook, and as we were talking about earlier, one major reason for this increase in the inflation forecast is the expected pass-through of higher energy and distribution costs.

Another important risk is faster compensation growth. Both compensation per hour and the ECI are projected to increase significantly next year, and this seems consistent with the anecdotes I noted earlier about wage pressures. These pressures are of particular concern at this stage of the cycle because we can't expect continued outsized gains in productivity to hold down unit labor costs. Some cost increases may be absorbed by lower profit margins, but there is a risk that they may show up in higher prices as well.

With the outlook for inflation already higher, and with so much liquidity in the financial system, the cost of excessive policy accommodation could be significant. So at this point, we should continue to increase rates until they are safely in the neutral zone.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Obviously, our Atlanta Bank's attention these past three weeks has been riveted on Hurricane Katrina and its aftermath, because of both our operational responsibilities in the areas affected by the storm and our concerns about the welfare of our New Orleans staff. In addition, we have been trying to contribute to our collective understanding of the policy implications of the storm and its aftermath.

Let me first take this opportunity to thank our colleagues here in Washington and at all of the Reserve Banks for the extraordinary support you have given us over the past three weeks and for the contributions some of you and many of your staff members have sent for our New Orleans staff relief fund to help some of our most desperate employees. Also, it's my understanding that we have borrowed employees from at least seven other Reserve Banks to help us with the processing of New Orleans checks in Atlanta. And our sister banks in Dallas and St. Louis and the Cash Product Office in San Francisco have gone to extraordinary lengths to help us meet the cash needs of the hurricane-affected areas.

Fortunately, we have accounted for all but one of our 176 New Orleans staff. Our staff members now, amazingly, are spread across 12 states, living with friends and relatives and trying to restart their lives. It's not clear at this point when we'll be able to restart operations out of the New Orleans office. We have sorted through the various dimensions of the impact of the storm and could cite much in the form of detailed statistics and anecdotal evidence. That descriptive information has already been shared with the Board staff and others around the System, so let me use my time to focus on our views of the most important policy implications of what has happened.

In the end, we believe—if past experience is any guide—that while there will be a hit to output, the natural inclination of people to rebuild residences and businesses will begin to kick in more quickly than one might expect. And this will be supported by the inflow of insurance payments and the substantial federal aid that the President has promised, as we have already talked about. We do believe that this will begin sooner in Mississippi, which does not have to contend with the flooding that will delay progress in New Orleans. In fact, our directors from Mississippi indicate that as early as last week deals were being done and aggressive cleanup and even some major repair work had already started. From this perspective then, we believe the lost output, as is the case in the forecast in the Greenbook, will be made up reasonably quickly.

My greater concern is on the implications for prices from the damage of the area's infrastructure, which includes oil and gas platforms, rail lines, intermodal transportation, bridges, refineries, pipelines, and natural gas processing facilities. These facilities are critical to the production and distribution of energy and energy-related products for the nation as a whole. The damage has already been seen, as oil and natural gas prices have spiked, and we believe there will be important impacts on both headline and core inflation measures. These will result from the ripple effects stemming mainly from the supply shock to the prices of oil and gas, refined products, transportation, and building materials.

In addition, the promised federal spending will help to fuel demand for labor in the area and for construction materials as well as other goods and services that are already in short supply and will be needed for the rebuilding. As someone else has already indicated, this increased demand will clearly add to short-term price pressures that will extend beyond the South. How significant and how long-lasting these price effects will be is still very uncertain.

For example, we don’t know how long the supply problem, particularly for natural gas, will last. Despite what has been reported elsewhere, our on-the-ground sources state that a large part of the pipeline system that moves oil and gas from the wells to processing facilities has yet to be inspected for damage, so we just can’t yet know how long it will be until normal operations resume. And as Karen noted, this uncertainty may be exacerbated by Hurricane Rita, which is now on a projected path that would take it through some of the offshore gas and oil fields that were not severely hit by Katrina. Our own sense is that the implications of the natural gas disruption and its associated price run-up have not been given sufficient attention. While natural gas reserves are reported to have been in the normal seasonal range prior to Katrina, there is little or no capacity to make up for the near-term shortfalls, as could be done with oil.

The chairman of my board of directors, who heads the holding company of the major electric power company serving the Southeast, told me just yesterday that if natural gas prices remain as high as futures markets suggest, the consumer is in for a huge hit in coming months. He suggests that not only will homeowners be shocked at their bills for natural gas this winter, particularly if we have a cold winter, but that electric utility rates are in for a big jump, as state regulatory agencies eventually approve the pass-through increase in generation costs attributed to high natural gas prices. We know that virtually all of the new electric-generating facilities built in the last couple of decades were designed with natural gas as the preferred fuel. Just as higher gasoline prices seem to have finally hit home with consumers, these coming jolts from natural gas and electric bills could well show through to inflation expectations, in our view.

While some of these supply and price shocks will likely be transitory, and energy supply problems should ease a bit as pumping capacity in refineries comes back on line, they will still last for several months before reverting to levels that we think are likely to be a bit higher than pre-Katrina levels. These increased energy prices will show through markedly, most markedly in the broad headline inflation measures. But we also think we will see some significant feed-through effects to core prices. Large industrial users of natural gas, like the building materials company Georgia-Pacific, whose president is on our Atlanta board, are already feeling the huge cost pressures from high natural gas prices and have become more determined than ever to pass on some of those costs.

Another of our directors with worldwide responsibility for Dow Chemical indicates that prices for petrochemical feeder stock from oil and gas are already up 20 to 40 percent and will soon be felt across a wide array of plastic products and industrial chemicals. Another director who runs a major trucking firm indicates that her costs are going through the roof, and fuel surcharges are now the norm. The anecdotal information is that customers are more readily accepting these increased costs, which are now being passed on more readily rather than being limited by competitive pressures. For these reasons, we are not nearly as sanguine about either the short-term or long-term implications for prices as the Greenbook.

Putting all of this together, we believe, as the Greenbook clearly lays out, that the economy went into Katrina with considerable momentum. And looking past the next six months or so, we think the hit to near-term aggregate growth will be more than offset by the stimulus associated with deployment of private and public funds to rebuild.

The maturity of the expansion pre-Katrina was underscored by a report from one of our regular temporary employment agency contacts who reported that they are now seeing shortages in several markets in a number of skilled and unskilled jobs. In fact, they have raised wages by $2.50 an hour in several categories. While I think one might make the case today for a pause from our policy path, it is the case that significant monetary accommodation is already in place. And we have more fiscal policy support to come in targeted federal spending for hurricane relief.

I am most concerned about the pressure on prices. While some of this will be short-lived, I don’t think those higher inflation numbers will go unnoticed by either businesses or individuals. And I think this could begin to cause some deterioration in inflation expectations, which remained reasonably well contained until recently. At the same time, I don’t want us to appear to be overreacting to the short-term supply shock to prices; that may make it seem that we think we’ve gotten behind the curve. I believe the best way to ensure that expectations don’t become unraveled is to continue on our present policy path for a bit longer. I think this means—

as hard as it is for me, coming from our area, to say—that we should increase our fed funds target rate by another 25 basis points today and be very careful about the communication that we craft to go with that announcement. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. The Third District economy continues to expand at a moderate pace. Consumer spending for general merchandise has edged up. Retailers report that back-to-school shopping got off to a slow start in August, but attributed it to exceptionally warm weather, which hindered the sale of fall merchandise. Auto sales have been brisk, with dealers in the region reporting continuing high rates of sales in August, except for large SUVs. Employment is rising steadily in the region, albeit at a somewhat slower pace than in the nation. While the regional unemployment rate ticked up in July from its second-quarter level, it remains lower than the national rate.

Housing markets remained strong in the District, with sales continuing at a high rate. Price appreciation continues at a steady pace, but several of our contacts noted that higher-priced homes appear to be taking longer to sell now than earlier this year. The nonresidential market continues to improve, with construction contracts up and office leasing active. The demand for commercial space continues to expand at a slow but steady pace in Philadelphia. Although vacancy rates remain high, we have seen positive net absorption of office space for seven consecutive quarters. Rental rates remain steady.

Recent manufacturing activity in the District has been softer than we saw earlier this year. The index of general activity in the manufacturing survey rebounded in August but fell again in September to a positive 2.2, indicating virtually flat manufacturing activity in the

District this month. The downward trend in our index since the beginning of the year is echoed by a number of the regional manufacturing indexes as well as the national purchasing managers' index. There was also a significant drop in the respondents' expectations about future activity. There were still more firms expecting an increase in activity over the next six months than expecting a decline, but the percentage of respondents expecting a decline doubled in September. I should point out, however, that the survey was taken in the days early after the Katrina event, and that likely had something to do with the large drop. We'll have to look forward to the next couple of months.

Perhaps the most notable and troubling information from our latest survey is the significant increase in price indexes. The prices paid index showed its strongest increase since 1973 and is at its highest level since January. The index for prices received also moved higher. Expectations about future prices were also considerably higher this month.

Concerns about inflation are not limited to our manufacturers. While the economic impact of the hurricane has been slight in our District—and our business contacts expect further improvement in our regional economy—the loss of petroleum products and production in the facilities in the Gulf of Mexico has prompted a sharp rise in inflation concerns in many of our firms.

Turning to the national outlook, as the Greenbook noted, incoming data on the national economy pre-Katrina indicated that the expansion was continuing on a solid footing, with GDP growth slightly higher than potential. Labor markets continued to improve, with little or no slack remaining. Consumers continued to spend at a good pace despite elevated oil and gasoline prices. While there was some softening in the most recent orders and shipments data, this reflected the usual month-to-month volatility, and business spending remained healthy.

Higher energy prices were showing through to headline inflation, but so far had little impact on core inflation. If Katrina hadn't happened, it is my view that a decision to continue our strategy to remove monetary policy accommodation would have been relatively easy. But Katrina did happen. The hurricane is a human tragedy, as was noted, and it has changed the near-term outlook for the economy.

I commend the Greenbook staff for the careful discussion and analysis of the potential effects on both growth and inflation. I acknowledge that there is a wider band of uncertainty around the forecasts than there had been. However, as a baseline forecast, I think the Greenbook has it largely right. Certainly, Katrina will have a substantial impact on the Gulf of Mexico's regional economy for many months to come. It also has a potentially wider national scope than other natural disasters. Because of the disruption in the energy and shipping sectors, it will have ramifications for the rest of the economy.

The destruction of the physical wealth and oil infrastructure and the disruption in economic activity will temporarily reduce the growth of the national economy and add to inflation over the near term. Monthly data over the next couple of months are going to be weaker than we'd like to see, and our headline inflation numbers are going to be higher than we would like. But these effects are likely temporary. The cleanup has already begun, as was noted, and rebuilding efforts funded by public and private spending will add to baseline growth in the fourth quarter and into next year.

As the energy infrastructure is rebuilt and the energy markets stabilize, much of the run-up of inflation should reverse as well. Of course, a longer-run negative impact is not out of the realm of possibility, but I think we will see a reversal of the sharp run-up in oil and gasoline prices after the hurricane season. That, along with the good economic prospects, the good progress going forward to get the oil and refinery capacity back on line, and the improvement in governmental response after a troublesome beginning will all help mitigate these longer-run impacts.

The relevant policy options for us to consider at this point are whether to continue removing policy accommodation or to take a pause. I would argue that the prudent course of action today is to remain on our previous path, i.e., to continue to move rates up gradually. There are ample fundamental reasons for such a policy action. “We are at a whisker from potential output,” to quote a recent comment by President Yellen. I like that comment—“a whisker.” [Laughter]

And I continue to be concerned about inflationary pressures. The higher energy prices we saw even before Katrina add to the concern. And we now have a significant increase in the amount of fiscal stimulus in the pipeline, as was discussed, which has the potential to keep pressure on inflation elevated for some time, even after energy price increases subside. I would also note the apparent increase in near-term inflation expectations. The recently released University of Michigan Survey, discussed earlier and in our briefing documents, shows a fairly hefty increase in both short- and medium-term expectations of inflation—a fact worthy of our attention.

Finally, I believe that continuing to reduce policy accommodation would be the best way to underscore to both the markets and the public our belief that Katrina will not change the underlying economic fundamentals and that the negative impact on growth will be temporary. Markets generally expect a rate increase today, so I believe that move would not be disruptive.

By contrast, pausing today will do little to improve the temporary effects on growth of Katrina, which is largely a supply shock. And if we do pause today on the grounds that Katrina has made the short-run economic outlook uncertain, I think it will be very difficult for us to resume raising rates in the short term. Economic data coming in over the next couple of months on production, employment, and consumer spending are likely to be weak because of hurricane effects. Trying to craft a statement to explain why we are raising rates in the midst of weak data, after pausing now, would be a daunting task. So if we pause today, I think we have to consider that we will be on hold for a while, perhaps even as long as to the beginning of next year. In my mind, this poses an unacceptable risk that we will find ourselves behind the curve. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Fisher.

MR. FISHER. Mr. Chairman, the Texas economy is faring better than the national economy. Pre-Katrina we saw very strong evidence of that in all nine of what we call our super sectors in the economy—including, by the way, the information and telecom sectors, which suffered serious setbacks in the bursting of the dot-com bubble and the reversal, coming out of the recession in 2003.

Post-Katrina data are likely to be stronger still. Despite or perhaps because of the unique position that we’re in geographically, 265,000 people from the area affected by Katrina have evacuated to the state of Texas. We expect about 40,000 of them to stay, and that's above and beyond Jack's employees to whom we've tried very hard to be helpful.

The way our economy will improve in the aftermath of the hurricane is by increasing the convention business, for example, that has been displaced into Dallas. And the port of Houston will have increased activity. We'll see what happens with this storm that's brewing presently. Our office and business relocation efforts are running full bore, and throughout the state we're getting commitments already from people who have been displaced along the Gulf Coast.

Our data show greater business optimism than is seen nationwide. Our bankers are very frisky. [Laughter] As one of them, the CEO of the largest bank in our District, put it the other day, "loan demand is stronger than horseradish." And it just continues onward. One concern I would note is that economic conditions in Mexico are worse than we expected, and—a point to make about the Greenbook—we're less optimistic than the Board staff about the second half of the year. There seems to have been an implosion in domestic demand in Mexico. We're also concerned about some developments in the building materials sector for cement, wood, and steel—we're seeing significant evidence of the hoarding of lumber, for example—and how that might affect construction activity in our state. We are, at least in Northern Texas, second to Atlanta in terms of housing starts, although fortunately not subject to significant upward price pressures.

On the national anecdotal side, this has been an aggressive period for us in that we talked to as many CEOs—many with firms headquartered in our District—and other business contacts as we could. We spoke with a total of 15 CEOs for this round, one COO in retailing—everybody knows who that is—several CFOs, and many directors from banks and other boards of different sizes and dimensions of conventional companies. So I'd like to summarize very quickly what we heard.

The retailers, from the convenience store operator who is headquartered in our District to the largest retailer, emphasized two points. First, $3.00 per gallon gasoline seems to be the tipping point in terms of having an impact on consumption. Whether Katrina is directly related to that or not, the point is that one gets from these retailers evidence of a falling off of demand and, very importantly, a bifurcation of demand. By the latter I mean that the higher-end retailers like Nieman Marcus continue to do well while the lower- and middle-end retailers suffer. Second, there has been a change in product choice, with a move from branded products to unbranded products. My favorite example provided to me in this call-around was the substitution of Gold Coast cigarettes for Marlboros. There's a $2.50 per pack difference, and retailers, particularly 7-Eleven, are seeing significantly higher sales of the lower-priced brand.

The price pressures that are coming in retail are in areas one would expect—plastics, packaging, transportation—and there is evidence of price pressures beginning to build. I understand that Wal-Mart executives have called in the CEOs of all their suppliers and told them that Wal-Mart will not accept further cost through-puts. But the company indicated that they will work together with their suppliers to achieve efficiencies. Whether that experiment will succeed or not is another question.

On energy, we have what we call a SWOT team—we replace the A with an O, which is for oil—that includes the largest integrated company down to some smaller gas producers. I've been sending around some notes to my co-Presidents on what we have learned from these sources, for whatever they're worth. The bottom line there really comes down to natural gas and gasoline prices. There are 25 ships at sea presently bringing in product, meaning gasoline. And the expectation is not so much a direct price movement based on Katrina but increased volatility, as we talked about earlier, dependent on whether or not the winter turns out to be a cold one. That's what the producers are looking at in terms of the real side of the business as opposed to the speculative side of the business.

The effects are working their way through chemicals, and these are effects that don't come to mind readily. You can only take a natural gas molecule and divide it in so many ways. Our chemicals people are telling us, for example, that they don't yet have the leeway to pass through prices on things like nitrogen and hydrogen and other chemicals that we ordinarily don't think about but that are important to the chemical production process. But as one said: "We are going to look for every way we can to pass on prices there."

Regarding the shipping and rails, the largest barge company in the country gave us this statistic: 300 to 400 barges out of 15,000 to 16,000 were affected by developments in the Mississippi related to Katrina. But it was "no big deal except for an impact at the margin." We received a similar report from the CEO of one of the larger of the five railroad companies. One thing that everybody in the transportation business talks about that they applaud politically is the waiving of the Jones Act. The estimate is that it will cut intercoastal transportation costs by ship by half, which is obviously not insignificant.

As far as express delivery is concerned, the key factor there in terms of ground transportation is whether or not the U.S. mail will move up its prices; the expectation is for a 5.4 percent increase in January. On the auto side, as President Moskow reported, Ford is probably feeling more frisky—just to use that term again—and GM is as well. It's interesting to look at the used auto auctions for Manheim and Adessa, the two largest wholesale used car auctioneers. There was a big spike in prices post-Katrina. If you do the math, whether 100,000 cars or even more were lost from hurricane damage, this should be of assistance to the auto companies.

As far as technology is concerned, TI reports the ability to pass on some price increases in their broad semiconductor business. But again, all the tech folks, whether it’s Dell or EDS, report continued pressure to lower prices and to outsource and new source their employee base.

On housing, I have reported on the hoarding of lumber. There is another interesting development, which is the disappearance of contractors and subcontractors from our state—and apparently from Florida, Jack—because they are rushing to New Orleans to cash in on the money that is going to be spent there.

In summary, the comments from our business contacts on Katrina, while acknowledging the human tragedy and the tremendous displacement of people and property, range from “no impact” to “short-term shiver” to “sporadic impact.” And as cold-hearted as it may seem, this comes down to the issue of where we are today. The way I have thought about it is that I believe there will be less of an income statement impact but more of a balance sheet impact, which is something I worry about. What I mean by that is that perhaps we will see a temporary setback in terms of growth, a shifting in the complexion of that growth, and, to be sure, additional volatility and potential price increases. But what I worry about most, Mr. Chairman, is what I have come to refer to as the fiscal incontinence of the government. That is, I worry about money being thrown at a problem and whether or not that will undermine the confidence that we depend on to finance our economic growth.

I'm reminded of a story that George Shultz told me about his time working under President Reagan, who was very frustrated about spending. George picked up the phone and called I think it was Sam Cohen and said, "Tell me, Sam, is there really any difference between Republicans and Democrats when it comes to spending?" And Cohen said, "I want to think about it, do some research, and give you a serious answer." He called back the next morning and said, "Yes, George, there is. Democrats enjoy it more." [Laughter] "But otherwise there doesn't appear to be any difference."

I want to vote for a 25 basis point increase in the funds rate. I agree with President Santomero's point about confidence. I worry about the price pressures that are building, but I also think it's very, very important that regardless of the amount of additional fiscal stimulus—whether it's $85 billion or more—that we not be viewed as being tempted in any way, shape, or form, to monetize that fiscal spending, whether it's incontinence or profligacy.

I would suggest also, Mr. Chairman—and this may seem odd—the possibility of looking at the language in our statement, which I think Jack mentioned obliquely, and whether or not we want to continue with the term "measured pace." Has it run its course? Has it become synonymous with a 25 basis point increase or not? And might we not use Katrina as an opportunity to decouple that link in order to provide us greater flexibility going forward? But, in summary, I am in favor of continuing to remove policy accommodation. Thank you very much.

CHAIRMAN GREENSPAN. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. It goes without saying that the devastation caused by Hurricane Katrina has elicited a deep sense of empathy in our District. In terms of the economic effects, we're paying special attention to energy and international trade. So far, at least, the effects on the Twelfth District economy appear to have been muted.

Since the end of August, retail gasoline prices are up about 30 cents per gallon on the West Coast, less than elsewhere in the nation. There was some early concern that Gulf Port cargo would be diverted to the West Coast, creating bottlenecks or significantly increasing shipping costs, but these concerns have largely dissipated.

Our contacts remain fairly optimistic about the prospects for the regional economy but are very concerned about the future path of energy prices, especially since Hurricane Katrina. Even before the hurricane, they were worried that higher gasoline prices and impending increases in home heating expenses would curb consumer demand. Indeed, PG&E, the public utility for northern California, just announced that rising natural gas prices could drive home heating costs in the area up by as much as 40 percent this winter. Discount retailers in the District expect these increases to put a dent in holiday spending. In addition, higher fuel prices already have trickled into prices for building materials, and contacts expect post-hurricane rebuilding efforts to boost those prices further and lengthen queues on some orders.

Turning to the national economy, I share the Greenbook's assessment of the near-term impact of Hurricane Katrina on economic growth. Pre-Katrina, the outlook was for very strong growth in the second half of 2005. It now seems likely that second-half growth will be substantially reduced due to the disruptions to production in the Gulf region and the negative impact of the run-up in energy prices on consumer spending. Of course, over this time frame there's little that monetary policy can do to affect actual outcomes.

While the proposed policy statement associated with alternative B acknowledges increased uncertainty about economic performance in the near term, I believe that the uncertainties associated with the medium-term outlook have also risen substantially, and risks now exist that in my view pose a clear and persistent threat. On the upside, rebuilding commitments are escalating by the day. The recovery and bounceback fueled by massive fiscal stimulus could more than make up for the slowdown this winter, propelling the economy on an unsustainable upward trajectory similar to the optimistic scenario laid out in the Greenbook.

But downside risks to growth also loom. Rebuilding schedules could easily slip. Moreover, the pace of restarting closed oil and natural gas platforms and rigs in the Gulf of Mexico has leveled off, and the prognosis for restarting the remaining closed facilities as well as refineries and natural gas treatment plants remains in question. If disruptions persist or further shocks to supply occur, the economy could develop more along the lines of the pessimistic scenario in the Greenbook. Moreover, we may not yet have seen the full brunt on spending of the pre-Katrina energy price increases. It's sobering to note that in the postwar period, the U.S. economy has rarely escaped such severe run-ups in oil prices without suffering a significant downturn.

Turning to inflation, I was quite concerned at our August meeting by the elevated rate of core PCE inflation, which was skirting the top of my comfort zone. Since that meeting, I've become more confident that core inflation remains well contained. Recent data on core price inflation have been encouraging. Core PCE prices have risen at a 1½ percent rate over the six months through July, right in the middle of my preferred range, and core CPI inflation has also been well behaved. I'm also encouraged by readings on wage growth from the employment cost index and from the household survey, a series that our research staff has recently started compiling and tracking. These remain remarkably subdued. The elevated rate of growth in compensation per hour from the productivity and cost report over the past year far exceeds the readings provided by these other series and may be more an outlier than a strong signal of tight labor markets and wage pressures.

While my comfort level with respect to core inflation has improved since August, the Board’s staff has raised the Greenbook forecast of core PCE price inflation in 2006 by 0.2 of a percentage point to 2.3 percent due to the run-up in energy prices since the August meeting. I must say that I actually found the low-inflation alternative simulation in the Greenbook more compelling. This scenario assumes that inflation expectations remain well anchored, and it shows core inflation falling over the next two years, reaching 1½ percent in 2007.

On that point, the relative stability of longer-term break-even inflation rates derived from the TIPS market this year, even as oil prices surged, provides evidence that the public remains confident in the Committee’s commitment to price stability. Of course, the jump in inflation expectations seen in this month’s preliminary Michigan survey was worrisome, but we must be cautious not to read too much into that report since it was taken so soon after Katrina.

To assess the likely pass-through of energy into core consumer inflation, our staff has estimated Phillips curve type forecasting models akin to those employed at the Board. An important finding emerges. Changes in real oil prices did have an economically and statistically significant effect on core inflation, but only up to the early 1980s. Importantly for the current situation, they find no evidence of such a relationship in the data since the early ’80s. The critical difference between the pre- and post-1980s experience probably relates to the public’s inflation expectations. During the 1970s, they became unmoored from price stability but now appear to be well anchored, as in the Greenbook's low inflation scenario.

With respect to policy, I support a 25 basis point rate increase rather than a pause today. A pause at this meeting justified by a need to further assess Katrina's impact would be sensible if we actually expected to know a lot more about the medium-term outlook by November, but that's unlikely to be the case. A pause could counterproductively mislead market participants about the likely future path of policy or create the misimpression that the Fed is unduly pessimistic about the outlook. So I consider it wiser to stick with our "measured pace" approach for now. I think it's well justified by the Greenbook forecast, uncertain as it is, and consistent with market expectations. But going forward, we obviously need to be flexible and adjust our views about where we're ultimately heading on the basis of new data and forecasts.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you very much, Mr. Chairman. For the past couple of meetings I've been reporting a lull in economic activity in New England, with little employment growth and muted readings on confidence. Perhaps it was the weather or the impact of the Pentagon's base realignment and closure (BRAC) proposals on fragile labor markets such as those in Maine but, whatever it was, the region appeared to pull out of it in late July and make some further progress in August. The weather turned bright and sunny, tourists filled the beaches, and hopes for fall tourism rose. Employment surged by more than 13,000 jobs over the two months—that's big in New England—with most broad industry categories showing gains. Consumer confidence rose, as did business confidence. And the BRAC Commission decided not to follow the Pentagon's recommendation to close two major bases in the region.

With the exception of commercial real estate, which remains in the doldrums in Boston, the outlook turned positive overall, with most contacts expecting continued growth for the remainder of 2005 and into 2006. But, of course, this was pre-Katrina. Since that devastating disaster, we've tried hard to understand the impact on the region and the nation. Our small business advisory group met as scheduled the week after the hurricane hit, as did our board of directors. At that point things, indeed, seemed gloomy. But as the recovery effort got on a better footing, the underlying resilience of the U.S. economy began to show through.

To capture a sense of this changing scene, we made calls late last week to large national retailers and manufacturers headquartered in the First District. Overall there were several common themes. First, most contacts believed the pace of underlying growth had been solid and was likely to stay that way, with some negative hurricane effects this quarter and next but some positive impact thereafter. Indeed, one of our directors whose company is a large manufacturer of semiconductor chips reported worldwide expansion on the heels of a major inventory drawdown during the first half of the year. He reported semiconductor plants everywhere working at an 85 to 90 percent capacity most recently, with strong demands for PCs and hand sets driving chip production. A major regional bank with offices throughout New England and the eastern Midwest and down to Philadelphia reported that given the yield curve, the banking business had been a bit tough, but most bank customers seemed to be doing great. This bank and other employers reported increasing problems in finding skilled labor, even people to fill teller positions.

Second, while Katrina's devastation was terrible, our contacts were especially concerned about the effect of high oil, gasoline, and natural gas prices on their input costs for oil-based materials and on consumer pocketbooks. Consumer prices in the Boston area were on the rise prior to Katrina, with the region's headline rate of inflation at 4 percent and core at 3 percent. The biggest area of price growth even then was for fuel and utilities, which rose almost twice as fast as nationwide over the 12 months from July '04 to July '05. Given the region's lack of homegrown energy supplies, its reliance on oil for home heating purposes, and the fact that over half of its electrical generators are now fired by natural gas brought in from outside the region, it seems clear that Boston price growth, driven by energy costs, will continue to outstrip the nation at least through the winter months. Moreover, a pre-Katrina Federal Energy Regulatory Commission report, which I think I've talked about before, sees the region's power supply at risk of widespread brownouts this winter if very cold weather puts stress on generators working at capacity. More broadly, contacts also reported that Katrina's impact on energy costs may give them cover for price increases that prior to Katrina they've lacked the power to make stick.

The third common theme related to the possible upside potential for reconstruction-related demand in 2006. Manufacturers of capital goods and consumer durables anticipate a hurricane-related uptick next year. Companies with stores and manufacturing or major distribution points in the hurricane area will have some losses, though most expect them to be covered by insurance. And one large retailer reported that while 7 to 10 out of its 120 stores in the region appeared to be total losses, business was extremely strong at stores just outside the devastated areas, such as in Baton Rouge. That company has been moving employees in the affected areas to stores in areas where business is booming. A supplier of capital goods to the defense industry was concerned that the spending on recovery from Katrina could squeeze out other defense spending but they, on balance, thought the probability was that sales to the government and other major contractors might be delayed but not canceled.

Finally, there was a theme of outreach and support to employees in the affected area and of helping with disaster recovery. Almost all contacts were doing whatever they could—supplying generators and giving out free medicine and other supplies at evacuation locations. In fact, one drugstore reported that on a daily basis they were handing out about $500,000 worth of free drugs. Supplying water purification equipment and technology to restore communications was also noted.

Most companies have continued to pay their personnel and have made efforts to locate them all. Several have made grants to those who lost everything. They expect insurance to cover some of this and perhaps some government reimbursement, but the general attitude seemed to be to do as much as they could and to worry about how to cover the costs later. Just as within the Reserve Banks, the reported generosity of employees in areas beyond the hurricane was amazing, with one major company alone raising at least $17 million in donations to Katrina victims in the reconstruction efforts. So it’s not just government money that’s going into the area. There’s a lot of money from everywhere.

In sum, the New England economy seems on a stronger footing than it was earlier in the summer, though the dark clouds of rising energy costs are almost certain to take a bite out of regional pocketbooks, especially if the winter is a cold one as is predicted. This likely would have been the case without Katrina, but the related energy supply shock has made the short-term outlook a bit worse. Aside from energy, the economic effect of Katrina seems likely to be small, certainly by comparison with the human effect. By 2006, if energy costs moderate as predicted, the outlook could well be positive for the larger retailers and capital goods manufacturers in the region.

Turning to the Greenbook, there is more than the usual amount of uncertainty clouding the very near-term outlook. We in Boston, probably like everybody else around the table and elsewhere, have tried our hand at estimating the impact of Katrina. But I can’t imagine that we’re any better at it than the Board staff is. In fact, despite the ups and downs in the quarter-to-quarter projections, the Q4-over-Q4 GDP growth rates we see for both this year and next differ from the Greenbook only marginally. Our forecast for the unemployment rate is the same as the Greenbook’s and, given that we see a bit more excess labor capacity, we’re a little less pessimistic about increases in core inflation next year.

So despite the near-term uncertainty, the medium-term outlook seems less in question. While it seemed impossible a couple of weeks ago, as we were all riveted to the horrifying scenes on national TV, Katrina’s effect on the economy is likely to be very short term—a slower pace now and a somewhat faster pace later as reconstruction takes place.

The real issue is what was happening pre-Katrina and how that plays out going forward, and we have a somewhat greater sense of certainty about that picture—or, I should say, the same level of certainty we have about any forecast. Prior to Katrina most everything in the economy seemed to be running on all fours, though not without some causes for concern. Shipments data for July suggested some softness in P&E spending, and inventory rebuilding at the wholesale level was less than expected, but labor markets had shown solid progress. Financial markets had been and continued to be supportive of growth, if a bit too complacent about risk for my taste.

External growth was showing signs of life. A slowly closing output gap and higher energy costs raised concerns both about inflation down the road and possible negative effects on spending.

Assuming the instant effect of Katrina on energy prices moderates, the broad economic picture seems about the same as it was before the hurricane. That is, the best guess is growth at around potential for the next year or so, lower unemployment as labor markets continue to tighten, and more rather than less pressure on prices. Additional fiscal stimulus from Katrina recovery efforts could be a bit of a wild card here, as there seems to be a growing tendency to throw money at the problem—money we can ill afford, given medium-term deficit expectations. Don’t get me wrong. I think the federal government should help in the rebuilding process, but it has to be done in the context of overall fiscal discipline, which at this point seems a bit lacking.

There are surely risks to the forecast. On the downside, the higher energy prices that prevailed before Katrina might have a bigger impact on consumer spending and overall growth, particularly if the supply shock of the hurricane doesn’t ease off as expected. Pre-Katrina shipments and orders data may foretell a flattening rather than a rebound of capital spending. On the other hand, greater fiscal ease will certainly be an additional stimulant, and the hurricane could provide additional cover for more widespread pricing power.

Productivity growth has slowed, and we hear reports of labor being hard to find. Combine these reports with the slowly falling unemployment rate, and a surge in wage and salary growth as measured by the ECI, which we haven’t seen yet, may not be far off the mark.

As a matter of risk management, it seems to me for now that appearing to be complacent about simultaneous energy demand and supply shocks and diminishing excess capacity might well be more costly in terms of expectations and central bank credibility than dealing with greater downside effects if they were to emerge. Those effects could be addressed in a timely way by pausing, but at this point I don't see a need to take that step.

Thus, I'm in favor of continuing our process of removing policy accommodation at this meeting. Incoming economic data could well convince us of the need to stay put some time soon, or we might find it necessary to continue our upward trek longer or at a faster pace than we now are expecting. But at this point, continuing to remove policy accommodation at the "measured pace" we've been doing seems about right.

CHAIRMAN GREENSPAN. Okay. Shall we break for coffee?

[Coffee break]

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Fifth District economic activity appears to have expanded at a quicker pace from mid-August through mid-September. For the most part, production and sales in our area were not substantially affected by Hurricane Katrina. Shipments from District factories accelerated from August's modest upturn, and new orders grew for the first time since May. Service firms reported faster growth in their revenues, and they maintained the moderate pace of hiring seen in early August. Retailers told us that overall sales grew modestly. Labor market conditions remained solid, with District job growth maintaining the moderate pace of recent months.

Hurricane Katrina had relatively few real effects in our area, as I said, causing only some scattered and short-lived outages of gasoline and interrupting raw materials shipments to a small number of manufacturing firms. In addition, higher gasoline prices, combined with fears of availability, seemed to curtail tourist activity over the Labor Day weekend. Another hurricane, Ophelia, battered the Carolina coast last week, but preliminary assessments suggest it was not any more damaging than the typical, run-of-the-mill hurricane.

While several of our contacts tell us that higher fuel costs will squeeze profit margins, the majority tell us that they are passing on cost increases to their customers. Many firms report that customers are more receptive to price hikes in the current environment. With about half the responses in as of yesterday morning, preliminary results from our September business surveys are showing that both prices paid and prices received are rising at a quicker pace than in August, and expected price trends have generally ratcheted up as well.

Turning to the national picture, the Greenbook's forecasts for output and its components appear broadly consistent with private forecasters and with what we were hearing from our Fifth District contacts. Prior to Katrina, the economy was growing at a reasonably strong pace but with some signs of inflation pressures rising from elevated oil prices. And the real effects of the hurricane that are projected in the Greenbook forecast appear quite plausible, given the difficulties of assessing the temporal extent of the disruptions to economic activity.

But on the inflation side, the Greenbook forecast paints a picture that I find somewhat distressing. The staff's inflation forecast has been steadily drifting up over time—as shown, for example, in the fine new table on page 21. [Laughter] And it was revised up markedly for this meeting. Core PCE inflation is near 2½ percent throughout 2006 and does not fall below 2 percent until 2007. Inflation expectations move upward as well, which causes growth in compensation and unit labor costs to step up significantly at the beginning of next year. This would put inflation appreciably beyond a range I view as consistent with price stability.

While the real, quantitative effects of the hurricane are uncertain at this time and may prove more moderate than first feared, the qualitative implications for short-term real rates seem quite clear to me. A real interest rate is, of course, the price of current resources relative to forgone future resources, and for a number of reasons Katrina has caused a temporary scarcity of current resources. A portion of the capital stock in the affected region has been destroyed or damaged, and workers have been separated from employers. It will inevitably take time and resources to rebuild the capital stock and reestablish productive labor market matches.

The good news is that these effects are likely to be relatively short-lived. Within a year or so, we are likely to be back to more or less where we would have been in the aggregate. But this means that, if anything, Katrina should cause real interest rates to rise to encourage adjustment to the temporary scarcity of current resources. The fiscal response to the disaster points in the same direction regarding real rates. The sustainability of federal deficits was questionable prior to Hurricane Katrina, and the spending amounts being proposed for hurricane recovery efforts just strengthen the case for tighter policy.

I think we have to be careful about reasoning on the basis of the gap between current output and estimates of potential output. Some estimates appear to identify the decline in potential primarily with a small estimated effect of lost capital. Such approaches see the supply-side effects of Katrina as minimal and, therefore, interpret most of the decline in output as a shock to aggregate demand.

This makes it tempting to a naive policymaker to consider counteracting the macroeconomic effects with easier policy. But all of the real resource effects of Katrina of which I'm aware amount to reductions in our current capacity to produce goods and services. Lower real interest rates can do little to counteract these reductions.

I think we should be careful about the widely cited analogy in the public press to the 1970s when oil supply shocks were subsequently followed by recessions. I say this recognizing that several participants around the table were somewhat closer to monetary policy than I was then. But in the 1970s, inflation expectations were untethered, and people came to expect us to allow energy price shocks to feed through to overall inflation. We often confirmed that expectation by keeping real interest rates from rising. In fact, at times, we kept nominal rates from rising as fast as inflation and, thus, real rates fell. We were then forced to raise rates dramatically to bring inflation back down and, in the process, exacerbated the real effects of the oil price shocks.

So, to interpret the effects of Katrina as signaling an imminent shortfall of aggregate demand is to draw the wrong lesson from the 1970s, in my view. The right lesson for us today is the importance of keeping inflation expectations anchored in the face of this shock. At our last meeting, we noted the relative stability of longer-term inflation expectations as measured by the TIPS inflation compensation numbers, even in the face of sustained oil price increases. But the behavior of the fed funds futures prices and the TIPS curve since Hurricane Katrina suggest to me that our credibility is seriously incomplete, in the sense that many market participants appear to think that we might be willing to tolerate elevated inflation for some time in an attempt to ease the real effects of the hurricane. Our action and statement today should provide the public with greater certainty about our near-term intentions. Thank you.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. Let me start with a few pertinent facts about the District economy, both pre- and post-Katrina. Overall, the District economy remains healthy. Employment is continuing to advance modestly; and in at least a few geographic areas, it seems likely that employment gains are being constrained by a lack of available labor. Construction activity, both residential and nonresidential, is strong and/or improving. And one of the large credit card issuers in our District has reported—and I think this is reflective of national conditions—that repayments on credit card debt are up and charge-offs are at a 10-year low.

Higher fuel prices so far have not led to production cutbacks or plant closings in the District. Where possible, firms are switching to less expensive sources of energy, and surcharges are, of course, common. Higher energy prices do, though, seem to be particularly adverse for local governments and for farmers, who are also adversely affected by the infrastructure destruction and disruption in the Gulf area.

As for the effects of Katrina on the national economy, at the qualitative level I think we actually have considerable experience in analyzing these kinds of shocks, and in my view the Greenbook at that level has it essentially right. It seems to me, as others have commented, that in the short term we will get a disruption to growth followed by a rebound and presumably ultimately a resumption of trend growth. And, as far as inflation is concerned, I think we will get an acceleration ultimately followed by a return to trend, assuming that policy adheres more or less to the path that it would have followed.

At the quantitative level, though, it seems to me difficult to say anything precise with a lot of confidence. But I would venture that in these circumstances—because of the concentration of the population, the number of people affected by the disaster, and the affected area's location relative to the energy and transportation infrastructure—the amplitude of the swings, both in terms of growth and inflation, and perhaps the duration of the adjustment, would be extended. There's a temptation, I suppose, to exaggerate this. After all, a relatively small part of the economy is affected. But it seems to me that, in any event, uncertainty has increased. And if this overall description is roughly appropriate, then I find thinking about monetary policy more complicated than it was formerly. Moreover, I don't think the situation is going to get clarified in the near term, because the incoming data, of course, will be difficult to read, given that they will be affected in one way or another by both the disruption and the recovery efforts as they proceed.

In these circumstances, I feel most comfortable falling back on fundamentals—namely, the flexibility and strength of the underlying economy, which I don't think are affected by this. So I come out with a view that it's appropriate to continue on our path of removing policy accommodation, and I would favor a ¼ point increase in the fed funds rate. Having said that, I think we are getting to the point where we've removed a lot of accommodation. And one of these days we need to consider that and also think about how that ought to affect the language in the statement.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. There has been a lot of discussion on the national economy and Katrina, and I don't think I'll repeat that. But I would say that I am in agreement with the scenario the Greenbook has outlined here; we do expect a temporary slowdown in the economy this year and then a pickup next year and beyond. And I think the evidence from our region is consistent with that outlook.

Economic growth in the District remains strong, although businesses have expressed some concern over the impact of Katrina on the regional economy. At the end of August, though, employment was still growing solidly. Retailers reported further growth in sales; tourist activity continued to show little effect from higher gasoline prices at that time; and manufacturing activity had grown pretty solidly over the summer.

In a special survey that we conducted following Katrina, a wide range of contacts said that the disaster would have some negative effect on their businesses in terms of costs and the availability of supplies. And a small percentage actually expected some positive effects from it. More specifically, a contact at a major railroad coming out of our District from Kansas City told me that they were able to get their operations along the Gulf Coast back in order within just a few days of Katrina and were back moving materials across that area at almost normal levels. So, there has been a fairly strong reaction in terms of bringing things back on line after Katrina.

While the impacts of Katrina remain uncertain, I would say that analysts in the farm sector are more optimistic than they were just a week ago, for example. The impact on the transportation system, as I just mentioned, appears to be less than initially feared. Terminal facilities are now reporting limited damage to physical infrastructure, and the unloading of barges and loading of ocean-going vessels appear to be starting again. As a result, the hurricane's impact on agriculture will be primarily through higher fuel prices. Higher diesel and natural gas prices have a large impact on crop production costs, as they boost the cost of operating machinery, drying grain, fertilizers, and so forth. So overall I think activity in our District will continue strong. Katrina will have some impact on the region but not a major or long-lasting one for the most part.

Turning to the inflation outlook, my concerns there have not changed since our last meeting. Core inflation is higher than I would prefer, although it still is in the 2 percent plus range. Core CPI inflation, for example, is up 2.2 percent in August from a year ago, and other measures of underlying CPI inflation are, in fact, higher and moving slowly up. In addition, I believe the upside risks to inflation have increased, and I think we need to be aware of that and sensitive to it.

In my view, a pause now would in fact be more than a pause, because as others said—in particular President Santomero—in this environment the data are going to come in weaker than we would otherwise expect. So a pause now would be hard to reverse until sometime next year. The other point, which others also have noted, is that fundamentally monetary policy remains accommodative for now. We have been removing accommodation but policy is still accommodative, and I think we need to keep that in mind. Therefore, I think we should continue on that path as we move forward from this point. I would agree, though, since we have been removing accommodation for a while, that at some point here in the next few meetings we should be talking about changing the language and about how close we are to neutral on the funds rate. I think that will be an important and interesting discussion for us. However, for the time being, I think we should stay on our course and remove accommodation at the pace we have been doing in recent months. Thank you.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. I want to focus on a couple of anecdotal reports on the weak side of the projections going forward. But I don’t want this to be misunderstood; the general tenor of reports I’ve heard is clearly on the positive side.

I do want to say also that we seem to have merged the first and second go-rounds, so I'll just take note of that. [Laughter] I'm not going to break that pattern either.

According to my contact at Wal-Mart, the company estimates that every $10 per barrel increase in crude oil costs them about 100 basis points of same-store growth. In fact, Wal-Mart is cutting back purchases for the holiday season. Wal-Mart suppliers are also concerned about the strength of holiday sales, and Wal-Mart is in the process of negotiating price concessions in anticipation of weak sales. I think that more or less fits the message from my colleague to the right. Wal-Mart is anticipating a significant effect on corporate profits from the hurricane, both because of the damage and also because of the voluntary contributions that many companies have made.

I have a contact in a large software company who said that they are very concerned about weakness in the large enterprise sector of that business on a global basis. They don't understand exactly what's happening there, but they believe large enterprises may be making a genuine effort by to cut back on spending, perhaps because of the cycle that companies went through. They had delayed purchases and a lot of them have come back. But now they have filled their needs and are slowing down.

My UPS contact said that they're looking at an unexplained shortfall in the last two months in volume and revenue projections coming out of Asia. They don't know why that is happening. One other thing that's going on with UPS and FedEx both is that they're in the midst of labor negotiations that are beginning to become nasty, with pilots disrupting service. An example cited was this: A pilot lands a plane, knows that something needs to be fixed, but forgets to notify anyone until shortly before the plane is scheduled to take off. That then causes a delay. So there are some so-called job actions by some very strong-willed pilots. I think this is true for both UPS and FedEx, and it could lead to some disruption during the peak season.

As I hear people around the table—and I think we'll hear the same from those who have not yet spoken—we're all very adamant that the fundamental course of policy going forward not depart from controlling inflation. So, looking out over the next year, Katrina will have an effect primarily through the energy sector, because the direct disruption is a pretty small part of the total economy.

What we have is a supply disturbance in energy overlaid on a fundamentally strong demand picture that has been driving up energy prices worldwide, and I don't think we know exactly how big that disruption is going to be from the supply side. And it's not just gasoline; I think heating costs for fuel oil and natural gas will be a bigger bind for consumers. Once we start paying winter heating bills, the discussions about sales being hurt by high gasoline prices are going to be displaced substantially by discussions about the cost of heating.

I would like to state my own view in favor of a pause. At least I think we ought to get that case on the table. I want to reemphasize that we need to retain our longer-run concern about inflation. I think we can be completely clear about that in our statement. The statement would say something along the lines that as the uncertainties are resolved, we would then anticipate resuming the "measured pace" of rate increases.

But I would also like to address the policy question by focusing on how best to deal with a number of possible outcomes. To some extent we tend to focus on the forecast in terms of a point estimate, and I think the Greenbook does a good job with that. But there are substantial uncertainties about the forecast—probably even greater uncertainties in the near term than looking out a year because it’s a question of how fast the reconstruction takes place. Huge federal involvement may actually slow things down in the near term, because people will be waiting to see the money and may delay spending to rebuild and replace. I don’t really know. But I’d like to focus attention on the following: Suppose, on the one hand, we have a good news scenario where things fall into place better than we might have anticipated and, on the other hand, a bad news scenario where things are worse than we might have anticipated. How would today’s policy decision position us best for dealing with those various possibilities?

Clearly, if we raised rates today, it would fit nicely with the good news scenario. And we would continue removing policy accommodation with however many more moves are needed in the future. If we have a bad news scenario and we paused today, that also would fit well. On the other hand, if we raised the funds rate today and have a bad news scenario, we might find ourselves in a position where we would feel compelled to pause later. Then we would be in a situation where people would question why we didn’t pause right after the hurricane when all the uncertainties were in place. If we paused now, we would have made the correct call, if you will. And as the uncertainties are resolved, we would then go back to raising rates. So, it’s that kind of calculation that leads me to come out in favor of a pause. I think with the proper wording of our statement we will be able to resume our rate increases in a timely fashion. Thank you.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. The contours of the economic effects of Hurricane Katrina that are laid out in the Greenbook baseline look about right to me. But in the aftermath of the hurricane, and with the fragility in the energy markets, I found myself focusing more on the alternative scenarios in the Greenbook. In the conversations that I’ve had with my business contacts, they appear to have more anxiety about future prospects than about the present circumstances. My business contacts who have retail stores, warehouses, and production facilities in the Gulf region all seem to have a good handle on the direct impacts of the storm, and for the most part they say that their losses are manageable. But they emphasize that the indirect effects of the storm, driven primarily by increases in costs of energy and building materials prices, will be difficult to discern for many months.

Of particular concern to many of my directors is the reaction of consumers to the expense of filling their gas tanks and heating their homes during the winter. My directors report that they are already witnessing some retrenchment in consumer spending, and they don't know how much of this is just a temporary reaction or how much of it is a preview of more adjustments to come. The preliminary release of the University of Michigan's consumer sentiment survey illustrates this concern, and I think the Greenbook's "sentiment slump" alternative scenario addresses the policy issues that such a development would entail.

The latest spike in energy prices triggered by Katrina also has implications for the inflation outlook. On the positive side, most reports that I have been getting still have the flavor of businesses unable to pass on higher costs to their customers. Nevertheless, the headline and core inflation reports are likely to look scary for the next several months. Fortunately, as several of my contacts have explained, more than the usual number of price increases are taking the form of surcharges that are expected to be removed when energy and other raw materials prices recede. To the extent that this practice lies behind some of the near-term bad news that we are seeing on the inflation front, there is still reason to think that the Greenbook baseline projection will prove to be accurate. But at the same time, the "deteriorating inflation expectations" scenario highlights a risk to the outlook that also troubles me a great deal. I'm very pleased that we've enjoyed the public's confidence regarding our commitment to containing long-term inflation expectations for as long as we have during the successive energy price increases that we've been hit with, but I'm not anxious to test the limits of that confidence.

Even if the odds of the sentiment slump and the deteriorating inflation expectations scenarios are similar, the policy implications are not. The Greenbook projects a GDP difference in those two scenarios that is very small, but the difference in the projected inflation outcomes is too sizable for me to ignore. Consequently, I think the more prudent course of action today is for us to continue to remove our policy accommodation. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. Thank you, Mr. Chairman. The balance of evidence since our last meeting still supports, in our view, a reasonably positive outlook for output and inflation. If we look through, as we should, the transitory effects of Katrina and the reconstruction, and if we factor in what the futures market tells us about the expected magnitude and duration of the rise in energy prices, we still see an economy growing slightly above trend with core inflation following a path somewhat, but not substantially, above our preferred range.

The fundamentals still seem favorable to continued expansion with solid productivity growth, strong corporate balance sheets, reasonable growth in household income, and favorable financial conditions. And on the strength of this view, with real interest rates still quite low, we believe that we need to continue to tighten monetary policy at this meeting and beyond. At the national level, Katrina seems more consequential politically than economically.

Now, of course, the degree and balance of uncertainty has changed. We face a higher degree of overall uncertainty. It will be harder to assess over the next few quarters the underlying pace of demand growth. The rise of energy prices pre-Katrina—some of which remains even as the initial effects of the hurricane on expectations have washed out of energy markets, except for natural gas—creates some risk of a larger shock to confidence and behavior than seems to have been evident over the last two years. Damage from future hurricanes to energy and product output may prove harder to bridge through the release of international product reserves. Our capacity to discern the underlying rate of inflation is also somewhat diminished, perhaps less because of the effect of energy prices than the difficulty of sorting out what is actually happening to productivity growth and unit labor costs.

Apart from reducing overall confidence around the forecasts, the balance of risks has probably shifted, too—shifted toward a somewhat higher probability of slower growth relative to the path of potential output and toward a greater risk of a larger and more persistent rise in core inflation. If the former risk materialized, the latter might be mitigated. These are risks across the spectrum of scenarios, rather than the most probable combination.

But to acknowledge the change in uncertainty is not to suggest that it would be appropriate for us to stop or to push down the expected path of the nominal fed funds rate until we can better assess what we do not know now. The net effect of the changes to the outlook, on balance, probably does not alter the desirable path of the nominal fed funds rate relative to what we thought in mid-August. With the real rate still rather low, my inclination would be to continue to weight the upside risk to inflation as greater than the prospective risk of a significant slowdown in output relative to potential. As best we can tell today, that latter risk of weaker growth is still only prospective. This implies that the slope of the expected fed funds rate should remain materially positive, even if we move today. And I think we would be better off after this meeting if the markets raised the expected path a bit than if the path were to fall from its pre-meeting trajectory.

I think we probably know a little less today than we did in August about how far we are going to have to move, even if the economy appears to be following the path of our forecast. If we move today, all we know is that we're 25 basis points higher than we were. The fact that we are that much closer to some point we can't measure is a less valuable observation. We may even know less today about where equilibrium lies and whether that range has moved. And, of course, we still face some probability that we'll have to move past it, or past what in retrospect we thought was equilibrium.

Most of the hard questions we face look pretty much like they did at the last meeting. How strong and durable can we expect the expansion to be in the face of less optimism about future housing price gains or other factors that could cause household saving to rise and consumption to grow more slowly? Will this dramatic rise in energy prices over the past two years cause more substantial damage to business and consumer confidence? Will the world's private savers continue to be willing to acquire claims on the United States at the higher rate implied by our current account forecast, and to do so on such favorable terms? Will business margins start to erode in a way that will portend slower investment and employment growth? Will the U.S. political system be able to make a credible effort in the near term to improve our medium-term fiscal position and sustain our relatively open trade policy? And, if not, do we risk a reduction in expected potential growth in the future?

These are all factors that could hurt future growth, but that doesn't mean that monetary policy should be more accommodative than would otherwise make sense in anticipation of those negative effects or should try to preempt them. Rather, these familiar imbalances and concerns make the cost of any erosion in our credibility greater. Thank you.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Like President Geithner and many others of you, I do view this as one of those rare situations in which we can truly say the outlook is more uncertain than usual. [Laughter] But that should not deter us from proceeding with our "measured pace" of rate increases.

The pre-Katrina data themselves suggested some potentially interesting questions about the outlook, which could have implications for policy going forward. I was especially struck by the weakness in capital spending, despite high and rising profits and strength in other aspects of the so-called fundamentals. It's possible that business caution has increased again, perhaps out of concern about the effects of the rapid run-up in energy prices on demand since last spring. But at the same time, house prices on the OFHEO index continued to rise at a very rapid pace through the second quarter, supporting household spending and further increases in resource utilization. The expansion was continuing but had become even more unbalanced—more reliant on declining household saving rates induced by rising house prices. Core inflation was coming in lower than expected again. But the potential for future price increases, absent a further tightening of policy, was suggested by upside surprises on one measure of labor costs, rising resource utilization, and the threat that increases in energy costs could feed through to underlying inflation.

I agree with the staff's assessment that the most likely outcome from Katrina is that the economy will not be materially deflected from the path it was on. After the initial disruptions, fiscal stimulus, rising house prices, and still favorable financial conditions, along with the economy's natural resilience, should overcome any drag from higher energy prices and should keep activity increasing at a good clip in an economy that is already producing at a high level of resource utilization.

Under these circumstances, inflation pressures will not abate. And judging from the tendency for the output gap to continue to shrink this year, we'll probably need at least a couple of rounds of rate increases to keep the economy near its potential and to prevent inflation from trending higher. Katrina has greatly added to uncertainty, and not just about the extent of the near-term disruption or the effects on energy markets. The more difficult uncertainties relate to how people may react to what has happened, how the government will decide to respond, and how businesses and households will react to these governmental actions and to whatever the path of energy prices turns out to be.

How these uncertainties are resolved will affect the economy's medium-term prospects. But at this point, that added uncertainty doesn't look particularly asymmetrical in its implications for the path of policy. The risks are still two-sided. Growth could be stronger than anticipated, for example, owing to greater government spending and new tax incentives, with implications for inflation. But on the other side, the rise in energy prices may have less of a persistent effect on core inflation than the staff has predicted.

The feed-through of energy prices to core inflation has declined appreciably over time, and market participants who have actually marked down longer-term nominal interest rates since

August may have it right that higher energy prices will have more of a negative influence on demand than a positive effect on long-term inflation. The skews in the probabilities for the most likely outcomes were highlighted by the Michigan survey on Friday, pointing to extra weight on the possibility of weaker growth from increasing energy prices that affect consumer psychology and spending but also pointing to potentially higher inflation if expectations do become unanchored. And these skews themselves have offsetting implications for policy.

Moreover, uncertainty isn't going to be reduced by pausing or slowing the pace of tightening. This uncertainty isn't about the response of the economy to past or future monetary policy actions. Raising the funds rate, as expected, isn't likely to undermine sentiment or spending. Indeed, pausing, slowing down, or being more ambiguous about our expectations for policy going forward could confuse the public about our view of the situation.

In sum, this is a situation in which we should make our best guesses as to the likely outcome, however bad those guesses may be, and act on them, continuing the "measured pace" of tightening for now. Thank you.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. Beyond the tragic and sobering consequences of Katrina that we saw, the effect of Katrina with respect to monetary policy I think has been to create greater uncertainty, not just about the near term but also the intermediate term. Katrina clearly has become more policy-relevant than the previous natural disasters that we've seen, because it hit energy-producing regions of the country at a time of high and potentially rising energy prices driven by global supply and demand factors. It also came at a time when resource utilization was clearly tightening and the output gap was closing because the economy—supported by a particularly strong housing market and accommodative monetary policy—appeared to be growing above potential,

Additionally, core measures of inflation, while not deteriorating recently, had been running a bit high for my taste. Near-term inflation expectations were also rising; and longer-term expectations, while still being described as contained, were somewhat less contained than they had been at the last meeting, as Dino's chart showed.

I think the staff has done an outstanding job of calibrating the effects of Katrina and the subsequent rebuilding on the economy, including a careful assessment of the loss of and need to rebuild the capital stock. I accept the baseline forecast as the basis for discussion today and note that its contours are similar to those of private sector forecasters as well. However, the range of uncertainty around the baseline forecast is large. The plunge of consumer sentiment reminds us of that fact, as do the rise in inflation expectations in the most recent survey data and the ongoing jitters in spot and futures energy markets.

Faced with such uncertainty, we might be guided by our history in dealing with other periods of shock to the economic system. During previous episodes of shock and uncertainty, we have often lowered rates or at least temporarily refrained from raising rates to wait for the range of uncertainty to narrow. Therefore, before deciding to raise rates today, we have a burden of examining why we are not following the same reaction function we have in the past.

I see at least four reasons why, unlike in the past 20 years or so, the uncertainty that we face now should not be a precursor to a pause. First, the relative impact of a natural disaster on growth and inflation is ambiguous and not easily comparable to the shocks that we have experienced in the last two decades. Importantly, those shocks—9/11, the stock market break of

1987, and even Y2K—were clearly, or at least primarily, demand shocks, working through confidence effects and unsettled financial conditions, either actual or potential. Now, as others have said or implied, we are facing a shock to both the demand and the supply side of the economy. This is obviously an important distinction. Katrina is likely to elongate the period of high and rising energy prices that we were already confronting before the hurricane struck.

In the longer run, theory tells us that a persistently high energy cost, exacerbated by occasional shocks, reduces both labor productivity and potential output over time, as the amount of energy used per worker declines. This effect is only partially offset by the installation of energy-saving devices. If households and firms recognize the impact of high energy prices on potential supply, all else equal, they should lower equity prices and also damp aggregate demand through expectational effects. The possible reduction in aggregate demand does not, however, ipso facto match fully the reduction in potential supply. President Lacker suggested that a naive policymaker might put greater weight on the demand effects, but I also think that a reasonable policymaker would certainly recognize the need to set policy to help maintain a balance between aggregate supply and aggregate demand. And that does not inherently imply reducing our target funds rate.

Second, as already indicated, before Katrina we were seeing conditions of gradually rising inflation pressures. Staff estimates that seem reasonable to me indicate that the persistent energy price increases have contributed and will contribute ¼ to ¾ percentage points annually to core inflation between 2004 and 2007. Importantly, the staff forecast for inflation has been gradually rising from Greenbook to Greenbook as well. If we were to pause today, in my judgment we clearly would risk allowing the pass-through from headline inflation to core inflation to become embedded in inflation expectations, making it difficult to regain control over the inflation process and losing some of our hard-won credibility.

Third, the effort to rebuild parts of the United States will undoubtedly require massive federal expenditures in addition to transfers from insurers to households and businesses. As the staff forecast shows, this will be highly stimulative to the economy next year. I won't elaborate on that, as a number of others have already discussed it.

And I think the final reason for not following a pause strategy here, as a few others have said, is that it won't be clear when we can restart again. It is not clear to me at all that the data over the next few quarters will be free from the disruption of Katrina, but it is pretty clear to me that inflation pressures will continue to build. So, therefore, the staff forecast strikes me as a reasonable approach. That forecast manages to allow these various effects on growth—actual and potential—and inflation to end with a stable inflation outlook, in part by assuming that this Committee raises rates from the current accommodative level. This assumption seems warranted to me. In my judgment, we have sufficient reason not to follow our historical response of pausing.

The one counterargument to all of this is that there are also clearly a number of drags on the U.S. economy. These drags include drags from the export sector and relatively slow growth of business fixed investment. These show through, in my judgment, in the form of a lower equilibrium real interest rate, which implies that at some point we certainly should discuss when we want to stop raising the funds rate or at least be clear that we've moved past the neutral level. That may be, as I think Tom Hoenig suggested, in the not-too-distant future. Be that as it may, I'd say for today that we should continue to tighten. Thank you.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. Thank you, Mr. Chairman. Dave Stockton's introduction today suggested that this Greenbook analysis was a combination of the use of judgment and models. And as I reviewed the input, I noted it reflects that combination.

To wit, the Greenbook said that Katrina will restrain economic activity for the remainder of the year. Information is scant and fractured. We are in uncharted territory, with devastation of an entire city. Katrina is expected to depress real GDP by about ¾ percentage point in the third quarter, half of the effect due to reduced energy sector output. In the fourth quarter, a small positive real GDP growth is expected, but consumption will remain depressed. By the end of 2007, the level of GDP is expected to be back where it would have been prior to the hurricane. Not included in the Greenbook, but a judgment that seems obvious at this point, is that there is an immeasurable but hard to ignore fact that the economy is only now recovering from a corporate wariness toward expansion, suggesting that the psychological impact of Katrina is potentially problematic.

Turning to the inflation outlook, consumer energy prices are expected to increase considerably in the third and fourth quarters and then fall back in subsequent years. Our current projection for the pass-through effect contributes 0.2 to core PCE prices in 2006, with little effect in 2007. The fiscal stimulus expected to follow Katrina will impact the economy primarily in the years 2006 and 2007. I would say that, as time passes, hopefully the need for an appropriate congressional response to Katrina will be balanced by the need for fiscal discipline, as suggested by several of you.

With respect to the monetary policy path, the September Greenbook was unchanged from the August Greenbook; the expectation is for a 4 percent fed funds target by year-end and a 4¼ percent rate by mid-2006. In one of the alternative scenarios in the Greenbook—characterized by deteriorating inflation expectations created largely by surging energy costs—core PCE will not stabilize at 2 percent by 2007 but instead rise to 2½ percent in that year. A Taylor rule construct of monetary policy response would bring the fed funds target at that point to 4¾ percent.

In summary, the economy has taken a body blow as a result of Katrina. The solid growth that we had been experiencing has been interrupted, but the economy is expected to get back on track during 2006. The speed of the recovery is unknowable at this point, as the devastation to New Orleans has put us in uncharted territory, as we said earlier. It is important, as many of you have pointed out, to note that the pass-through effects of higher energy costs require that we maintain and perhaps increase our sensitivity to inflationary pressures. The effects of Katrina and the concerns about the potential for Hurricane Rita, as amplified by yesterday's movement in the WTI spot price, suggest that we not take this week's measure of inflationary expectations or headline inflation as an indication of how core inflation may be impacted in future months.

Ten consecutive ¼ point increases have brought the target fed funds rate into a range where it can reach both the expected level for year-end as well as that for the middle of next year without a need to continue our unbroken pace of rate increases. And a pause would accommodate the alternative scenario of deteriorating inflationary expectations. As it will be weeks, perhaps months, before we can fully assess the economic implications of the devastation caused by Katrina, I think it may be appropriate to pause or defer removing accommodation at this meeting.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. As many of you have already remarked, preparing for this meeting was a lot more challenging than preparing for other recent meetings. The economy was poised for strong growth in the third and fourth quarters before Hurricane Katrina. And the forecast that the staff has developed in the Greenbook I think is reasonable, given what we know at this time. That forecast suggests that while we may see some short-run softness, with growth below the rate we had anticipated, the rebuilding efforts clearly will add stimulus over the next year. I am also comforted that the underlying economy was strong. So while we are going to see a slight downtick due to the impact of the hurricane, the Greenbook forecast of real GDP growth in the mid-3 percent range over the next year indicates that we have sound economic expansion ahead. So while uncertainty about economic growth has increased, I still believe there are much more serious clouds on the inflation horizon.

The rapid rise in energy prices in the last couple of months has pushed the level of prices high enough that more firms are likely to find that they cannot absorb the increased costs and must raise prices to protect their profit margins. This will become more so the longer that energy prices remain high.

I am still hearing mixed expectations about the availability of natural gas this winter. While the impact of Katrina may not be as severe as first feared, the limited ability to expand natural gas supply, as we saw in the last two years, on top of slower fill due to hurricane damage, may create shortages this winter, especially if the economy remains as strong as we expect.

As the Greenbook notes, business spending on equipment and software has only modest forward momentum. This is despite solid economic growth, healthy profits, and favorable financial conditions. So why is business investment so limited? I'm going to answer this by referring to the most recent quarterly survey of CFOs conducted by Duke University with CFO Magazine. And I would note that this survey was concluded on August 28, the day before Katrina hit.

I want to read to you the lead on their press release for this survey. It says: "Corporate Optimism Plummets in Response to Housing and Fuel Concerns." For the first time in the four-year history of this survey, more CFOs are pessimistic than optimistic about the U.S. economy. Their number one concern is high fuel costs, ranking above health care costs for the first time. Interestingly, the survey also noted a jump in what they call their terrorism index, with one-third of the firms responding that costs to improve security and business recovery response has negatively impacted their bottom line. I think after Katrina there will be more firms looking at their business recovery plans.

As some executives have told me, with the rising costs of benefits, energy, and financing, they are closely managing discretionary items, including capital spending. Over the next 12 months, the CFOs who participated in the survey are planning slower growth of investment; they now expect to increase capital spending by only 4.7 percent. The survey indicates that CFOs are also worried about the housing market. They believe the market is overheated and that a necessary and expected decline in housing prices will negatively affect their firms. This echoes comments I've heard from others that a reversal in the housing market might have negative spillover effects due to consumers' reactions to a fall in the value of their housing wealth. So I find the survey results consistent with other comments I've been hearing that the business pessimism we're seeing is due in large part to growing concerns about rising prices on several fronts.

While recent inflation numbers are very well behaved, the Greenbook does reflect a rise in the core inflation forecast over the next year. The volatility we saw yesterday in the energy futures market, clearly due to Rita and other concerns, indicates how much the market is focusing on the unknown path for inflation that companies are facing. While the impact on inflation may be unclear—and we know the damage to platforms out in the Gulf and the effects on refinery capacity are still being assessed—the nervousness about costs is a factor that is affecting business behavior, and it is something that we can't ignore. The fiscal stimulus of Katrina and the rebuilding that will result is only going to add to inflation—and that's on top of a transportation bill that has a lot of spending on infrastructure that some of us think should have less priority than rebuilding around the Gulf Coast.

The chart on page 21—and I also love these new charts—helps us keep things in perspective, in terms of the historical trends in inflation as we've been tightening up from meeting to meeting. And we have to keep that in mind as we look to the future. We know that there is still ample liquidity in financial markets, so the risks of higher inflation to me right now are much greater than the risks to economic growth.

I think it's important that at today's meeting we give the market assurance that we will continue to focus on and be diligent in dealing with inflation, because rising costs appear to be at the heart of companies' concerns. To me that's very important, and I want to support an increase in interest rates at this meeting.

CHAIRMAN GREENSPAN. Mr. Reinhart.

MR. REINHART.[2] Thank you, Mr. Chairman. I will be referring to the material that Carol Low is now passing around. And out of deference to Governor Bernanke, I'm going to start reading before everybody has a copy of the material.

As Dave explained, there is a lot going on underneath the newly revised green sheets, as the effects of higher energy prices and the disruption of Hurricane Katrina shift the timing and composition of GDP growth over the next few quarters. As is unfortunately familiar, such a supply shock confronts central bankers with unpleasant choices, as you have to weigh the benefit of a potential policy offset to near-term softness in spending against the cost of adding impetus to inflation. By my reading, however, investors do not share your pain. As can be seen in the top left panel of your first exhibit, market participants apparently interpreted the confluence of events over the past six weeks as reason to mark down the anticipated path of the funds rate as much as 30 basis points. While you are expected to tighten today, the market is betting, on net, that only one more action will mark the conclusion of the measured removal of policy accommodation.

This reduction in expected policy restraint was associated with inflation compensation moving higher (as shown in the top right panel) and longer-term nominal yields dropping more considerably (as shown by the 10-year yield plotted at the lower left). The fact that equity prices posted an increase on balance and corporate risk spreads remained thin would seem to suggest that investors believe that the anticipated path of monetary policy, together with fiscal policy stimulus, will be sufficient to cushion the adverse effects of Hurricane Katrina on aggregate income and production, albeit with you accepting a little more inflation.

The staff's assessment, summarized in exhibit 2, differs somewhat. In light of the effects of the hurricane and other news over the intermeeting period, the staff trimmed its forecast of real GDP growth in the second half of this year (plotted in the upper left panel) but boosted it in the first half of 2006 as destruction gives way to reconstruction. The outlook for core PCE inflation, given in the second column of the table in the upper right panel, is a touch lower this year than was anticipated in August in light of another favorable CPI report but noticeably higher in 2006 as higher energy costs are passed through into core prices.

The bottom four panels offer one perspective on the policy choice confronting you today—an optimal control exercise, using the version of FRB/US with investors who are assumed to foresee policy outcomes correctly. The blue solid lines in the four panels plot the paths of key macro variables under the Greenbook outlook, given a policy trajectory chosen to minimize a loss function that weights equally

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

unemployment and inflation gaps and that also puts a small penalty on interest rate volatility. The red dotted lines report the same exercise, excluding the estimated effects of Katrina on confidence, energy prices, and overall inflation that are embedded in the baseline forecast. As can be seen, the simulations produce nearly identical paths for the nominal federal funds rate (the middle left panel). Essentially, the Katrina effects temporarily boosting inflation (the bottom right) lower the real federal funds rate (the middle right) enough to damp the swing in the output gap (the bottom left). Thus, the advice coming from the model is to proceed on the path for policy that you had envisioned before the hurricane's landfall.

Exhibit 3 addresses that policy choice a little more colorfully. The official title of the Bluebook is "Monetary Policy Alternatives," and we certainly delivered on that this time. [Laughter] We included only two explicit policy alternatives: A, in which there is no change in the funds rate; and B, in which it is increased 25 basis points (as noted in the column headings of the table). In the associated draft statements, we assumed that you would not want to send a strong signal about future action. But we also considered descriptions of how you could signal more conviction about the future path—either that it would involve a prolonged pause, A-, or a more substantial ultimate extent of tightening, B+, which is the difference between the "sure" and "unsure" subheadings.

In the Bluebook write-up, we assumed you would continue with the "measured pace" language, as in the heading of the first row. But recognizing the greater uncertainty about the economic outlook, we also included a box describing a new risk formula (the middle row) and the dropping of all guidance (the bottom row). Three rows by four columns produce 12 alternatives for the statement—a new Bluebook record. [Laughter]

We paid more attention to the familiar formulation of alternatives A and B for a reason that would not surprise any viewer of C-SPAN over the past week—*stare decisis*. As was explained during Judge Roberts' confirmation hearing and is summarized in the middle panel, *stare decisis* translates to "let the decision stand" and holds that it is proper to adhere to precedent and not unsettle things that are established. Justice Frankfurter noted that it "embodies an important social policy that represents an element of continuity and is rooted in the psychological need to satisfy reasonable expectations."

That sentiment favoring delivering the expected has been repeated often in this room—not in Latin and not always in English either. [Laughter] As shown in the bottom left panel, market expectations have settled on roughly a 90 percent weight on a ¼ point firming today. As the right panel relates, primary dealers predominantly believe that today's statement will retain the key features of the prior ones, including describing the Committee's intention to continue removing monetary policy accommodation at a measured pace.

Some arguments for alternatives A and B are presented in exhibit 4, which begins with those two Rorschach tests for policymakers—the behavior of the real federal funds rate relative to the range of estimates of its equilibrium (at the left) and of the nominal federal funds rate relative to the range of predictions from policy rules (at the right).

You might favor holding the nominal funds rate at 3½ percent today if you viewed the real federal funds rate (the solid line at the left) as close enough to its neutral value to afford you some time to assess the effects of cumulative policy firming and the near-term dislocations associated with Hurricane Katrina. The fact that the current nominal funds rate at the right is within the range of recommendations from standard rules might provide you some confidence in the decision to pause today. In particular, the information that accumulates over the next few weeks might be seen as particularly revealing about the serious downside risk that the disruptions in the Gulf region will sap household and business confidence. In that regard, the preliminary reading on consumer confidence from the Michigan survey plotted in the middle left panel might be taken as a warning flare. Although that drop was not far from staff expectations, a deeper and more pronounced slide would be troubling. One example of the adverse possibilities is the "sentiment slump" scenario in the Greenbook, which shows the unemployment rate (graphed as the dotted line in the lower left panel) moving up about ½ percentage point above the baseline (absent a monetary policy response).

Those favoring alternative B probably see less chance that the outlook will clarify materially in the next six weeks, in part because economic data are likely to be contaminated by hurricane effects for months to come. And as for those two upper panels, the real rate may have risen considerably, but our models suggest that it is still likely below its equilibrium level. A constant 3½ percent nominal funds rate may now be consistent with most policy rules but it will not be for long, as the green envelope of rate recommendations moves upward over the next year.

The case for alternative B might have been strengthened by another element of the Michigan survey released on Friday. As plotted in the middle right panel, one-year-ahead inflation expectations (the solid line) spiked higher and even the much less volatile longer-term expectations moved north of 3 percent. In particular, this might have served as an unpleasant reminder of the "deteriorating inflation expectations" scenario in the Greenbook, in which, as at the bottom right, core inflation remains above 2½ percent through the end of next year.

Whatever your choice of policy rate, market participants believe, as I already mentioned, that the rest of the statement will follow the path laid out in the 11 prior ones. In exhibit 5, I provide draft statements should you want to deviate from that route, presumably because you view the uncertain economic outlook as rendering forward-looking portions of the current statement no longer appropriate. The upper panel accompanies the policy choice of alternative B with a risk assessment explicitly conditioned on maintaining the current stance of policy for the next several quarters. Should the macro fundamentals play out as in the Greenbook, output growth is more likely to exceed that of its potential than fall short of it and inflation more likely to increase than decrease at an unchanged funds rate. Given that the output gap is already quite thin, neither outcome would seem to be acceptable to the Committee, thereby sending the signal that the funds rate is more likely to rise above 3¾ percent than fall bellow it.

This formula follows the convention since May 2003 of describing the uncertainty about both of the Committee's goals. Such a formula lacks the nuance possible from writing the statement afresh each time. But experience suggests that the freshness date of the statement passes by very quickly given the Committee's reluctance to change wording that market participants seem to obsess over. This simple, albeit coarse, formula also might solve the governance issue of how 19 people can agree on the key attributes of a statement in a limited time.

The bottom panel is silent about the possible path of the funds rate by dropping the risk assessment and the description of policy as being accommodative. This version satisfies the test of simplicity, but something may be lost in its economy. These probably are considerations for another day. I bring them up now, however, to remind you that as the real federal funds rate moves higher into the region where reasonable people can disagree about whether policy remains accommodative, the time when you will have to deal with the statement's structure comes closer.

The last exhibit provides the latest draft of Table 1 from the Bluebook. This version of the table incorporates a few changes from what you saw in the Bluebook. The first is stylistic in that, on re-reading, the last sentence in the paragraph addressing the effects of Hurricane Katrina on energy prices seemed repetitive. And I think that has been fixed. The other two changes are more substantial, at least from the perspective of the geological time over which the statement evolves. For one, the characterization of policy accommodation as "remaining" in the last sentence, as proposed in the Bluebook, was not in the August statement and has been struck. For another, longer-term expectations are "contained," not "well contained" as described in the August statement. Both changes were made in light of the run-up in inflation compensation and higher readings on inflation expectations. That concludes my prepared remarks.

CHAIRMAN GREENSPAN. Questions for Vincent? If not, I'll start.

I think the interesting question we have to answer is this: If Katrina had done the destruction that it did without affecting energy prices, how would we view it? We've had over the post-World War II period innumerable supply-side shocks. I remember the very prolonged steel strike of 1959, which had a profoundly debilitating effect on the economy overall, and that affected business confidence. When the strike was over, the economy came back with a surge. Theoretically, one can argue that the decline in economic activity as a consequence of a supply-side shock lowers wages, lowers compensation, and hence lowers expenditures. And one could theorize that a supply-side shock could bring on a recession.

I have never seen that happen. And I suspect the reason is that the underlying psychology associated with the replenishment that invariably follows a supply-side shock leads to expectations for the future that create forward momentum. I think this current situation is exactly that—a very large supply-side shock which, ex the energy price effect, in my judgment would have gone the way of all such scenarios: There would be a significant short-term retrenchment in activity, perhaps for a number of quarters. We would have the impact on the oil structure and on production and refining. But I submit to you that the price effect would not have been very high in earlier periods in our history when the crude price was $20 a barrel and when the excess supply in OPEC was several million barrels. In other words, we would have had the cutback in production at refineries and presumably in crude oil production, but the price effect would have been severely muted.

What is different today is something that has been mentioned several times around the table, namely, that the surplus has been depleted and, therefore, any little variation in supply hits the price. It’s not the crude price that is causing a problem, in my judgment. It’s the gasoline price. The higher price for gasoline does, of course, contract purchasing power. But more importantly, it has a very visual impact in that gasoline is one of the very few commodities—

milk may be another one—consumers look at for which they have continuous price comparisons. So this particular surge has been very evident as we've watched consumer attitudes and consumer expenditures over the course of the gasoline price run-up and especially in the acceleration that occurred after August 29.

One fascinating thing about this is that we used to talk about the crude price as though it were a substitute for the gasoline price, and that is dramatically different this time. What we have found is that the best way of viewing the markup from crude prices to gasoline prices is to weight WTI 60 percent and the heavier crude, Maya, 40 percent. This traces the gasoline price reasonably well, with a relatively stable markup from the weighted crude price through the refining margin, through the marketing margin, and into the retail price.

What has happened since the big surge and the presumed shortfall in production is that the price for regular unleaded gasoline has gone up, as you know, to over $3 a gallon and the weighted crude price has gone up to $1.50 a gallon, which is the equivalent of about a $60 per barrel average weighted price. After accounting for taxes, this is a $1.10 spread per gallon. The fairly narrow, normal spread is 50 cents. So we have a 60 cent surge here, and it's showing up partly in refinery margins, but in truly spectacular marketing margins. And it's clear that this is utterly unsustainable because if there is an industry in this country that is highly competitive, it is the neighborhood service station. The people running those stations are looking at their competitors across the street and down the block, and they are continuously adjusting their prices.

So the question here is: What has happened? Well, what has happened is obviously refinery breakdown in two forms. One, we've clearly squeezed out any excess capacity in the

United States. And two, in the process, we've had very considerable difficulty as well in refining the heavier crude oils. That gives us a worldwide mismatch between the type of crude oils we produce, which are more sour and heavier, and the growing needs for petroleum products that are increasingly for transportation, which of course include gasoline, diesel, and a lot of the lighter products. And essentially the production of those lighter products requires a very substantial transformation of the heavier crudes.

While we're in better shape than Europe with respect to the balance of catalytic cracking and coking operations, we don't have enough. As a consequence, we're running into very severe pressures where the price margins are opening up considerably, especially for those refiners who have the capacity to refine heavier and heavily discounted crudes.

By the end of the year we'll have the capacity back on line that, as Karen mentioned, is currently off line. It will gradually creep up. There is at this particular stage a very significant number of tankers moving in our direction that are loaded with motor gasoline produced in Europe, which under EPA regulations would not be able to be sold here. We import a little over a million barrels a day of gasoline, and a lot of it is reformulated basically into a form which meets EPA requirements but just barely. Having dropped the EPA requirements has opened up a substantial amount of the less stylized gasolines for the United States, and those products are going to hit our shores in a matter of weeks. In fact, that should start relatively soon.

So we should have those products shortly unless Rita turns out to be a really serious problem, and it may. But if you take a look at the probability distribution on the path of Rita, a goodly chunk of it is in northern Mexico and even east of New Orleans. They don't need that, of course. It's not as if they've missed the chaos and they need more of it. It will be a real mess.

But the point here is that the worst on the gasoline price is close to being over unless there is significant further damage to the refineries in the Houston area and below, which at this stage is conjectural. First of all, we're making the assumption that the waters of the Gulf of Mexico are somewhat warmer and that, therefore, that can turn just a plain storm into a hurricane. Right now they're talking a category 1, 2, or possibly 3 hurricane, but they're guessing. They don't really know; and the reason they're guessing is that it's not possible to know because there are too many variables. It reminds me a little of the Kenneth Arrow anecdote; it's not quite the same but there's a lot of that involved.

The markets are very sensitive. Having seen what happened with Katrina, they're trying to discount—probably well over discount—the possibilities associated with Rita. As you know, prices have come down today; the last time I looked, the crude price was down over a dollar and gasoline was down 7 to 10 cents a gallon after a big run-up yesterday.

At some point reasonably soon we're going to see gasoline prices move down. Ex Rita, they will go from over $3.00 a gallon at the pump down to probably $2.60. That is a very big move, and that will take out a significant amount of the consumer confidence erosion and conceivably the business confidence erosion—which I can see out there, and I think several of you have mentioned it—which, in turn, is a consequence of the erosion in consumer confidence. So I think that, short of the caveat of Rita, the scenario is not all that uncertain. There is no historical precedent to suggest that we can keep margins at the refining and marketing levels anywhere near where they are. We know why they are there; there was a supply-side shutdown. But the supply will be coming back, and indeed, imports from Europe are going to be quite substantial.

If that occurs, then clearly what we will have is a situation where the outlook is still very significantly restrained. Consumer outlays will be constrained because gasoline at $2.60 per gallon is not something that will galvanize a great deal of consumption. So, over the next number of months the economy will be fairly weak, but it’s going to be difficult to differentiate what part is the supply side and what part is not. As a consequence, there’s going to be considerable confusion and much, much less certainty than has been exhibited in financial markets over the last year or so.

So we’re going into a period where the one thing we can say for certain is that the level of uncertainty is going to be rising, and it’s going to be rising on two sides. It’s going to be rising presumably on the output side—and we’re going to be uncertain whether it’s related to supply or demand—and almost assuredly on the price side. The reason I say that is because we’ve been seeing a gradual upward creep in financial expectations, and none of us has experienced anything like this in 20 years. I guess I remember more of the pre-1980 period than most anyone around this table, and this has that very peculiar feel to it. It starts very slowly. It’s ambiguous. It’s disputable and unforecastable, but it grows and grows and grows. If you just look at the pattern, the change is usually too small in any short-term period to jolt you until you look back and say: “This has been growing for quite a while.” And then it starts to accelerate, largely because inflation expectations begin to erode. That’s what the history is. It’s very tough to forecast, but we have been through an exceptionally long period of disinflation, which has brought actual inflation expectations down and term premiums down. Everything is at its bottom. There is nowhere for them to go except up.

And one of the characteristics of these types of markets is that when things are going down there is an expectational variable that says they are going to go down further. In other words, the first difference matters. But when they get down as low as they are, the first difference goes to zero no matter what one can say about it because they can't go any lower. And that starts to change the pattern.

I don't know what the probabilities of this are. Anybody who makes a confident forecast of a turn like I've just been discussing is really reaching, and I am reaching. All I'm basically reaching to say is that I think the possibilities out there are a lot wider than we're envisaging in the Greenbook. The fiscal situation in this country has gotten to be scary. There is nobody who wants to forgo a free lunch. There are big discussions about whether we ought to cut taxes or raise spending. There are very few who think in terms of whether we should worry about the deficit. Indeed, all one has to do is go out there and suggest, as I rather foolishly do on occasion, how Congress could curtail expenditures in a very reasonable way. Do you think everyone applauds? Not exactly.

We've lost our moorings. These budgets are out of control. The reason I say that is because ever since the surpluses—which did more damage to fiscal discipline than I could conceivably have believed—nobody finds any political purpose in showing restraint. That means inflation premiums are going to build into long-term interest rates at some point. I don't know when, but it's out there somewhere.

In any event, one of the things that we know with some reasonable certainty is that, unlike in previous periods, this sharp rise in prices is running into a degree of short-term elasticity, especially for gasoline, that I don't think we were anticipating. Seasonally adjusted, weekly domestic demand for gasoline is off very sharply in recent weeks. Now, that's not to say gasoline consumption necessarily is going down. It only means that primary shipments including imports are down 600,000 to 800,000 barrels a day. What may be happening is that gasoline stations are essentially running down their inventories—which incidentally are not small—and the tanks in motor vehicles that consume gasoline are being run down. The primary published data on gasoline inventories—that would mean at primary terminals—is 200 million barrels now. That has come down significantly.

On average, gasoline service station inventories are about 80 million barrels. Taking the average capacity of fuel tanks and figuring the probable level of gasoline in those tanks, that's another 60 million. It's conceivable that those numbers went down a great deal and hence the actual consumption of gasoline has not gone down anywhere near as much as the domestic demand. That strikes me as highly unlikely because if one is dealing with shortages, there is a tendency, if anything, for service stations to get more rather than less gasoline. It's only in areas where there has been some form of rationing—even though they call it something else—that some stations have run out of gasoline.

But, in general, there's very little question in my mind that we've run into something different—namely, a significant drop in gasoline consumption. That means that people are driving less, since the stock of cars hasn't changed. Indeed, if you look at the overall unit use of energy, including oil, in the nonfinancial, non-energy corporate sector—as David mentioned—the actual per unit weighted amount of fuel per dollar of gross nonfinancial, non-energy corporate product has been going down fairly quickly. And I might add that a big chunk of it is in natural gas, which is natural gas demand destruction, not just conservation. So, the implied efficiency numbers are not as great as they have been. But one of the reasons why the profit margins have held up and the energy costs have not been pushed through just yet is that there is a significant amount of productivity going on, which means that oil has less of an effect than it used to.

So we're not seeing great damage as yet to margins. Indeed, on a monthly basis we find that margins of nonfinancial, non-energy corporations—doing data calculations obviously quite roughly—flattened out from March to June. Now, it's hard to know what was going on in July and August. There has to be some compression. I don't see how it could be otherwise, but we don't have any data on that.

Basically, I come down to the obvious question, which is of a twofold nature. If we choose to pause today, one obvious thing that is going to happen is that the federal funds futures curve, which now still gradually goes up even though it eventually flattens out, is going to flatten sharply. Then there's the point that President Santomero made about the fact that the economy is going to be showing poor data over the next number of months. So, the statement that we are going to resume raising rates at some point soon is just not credible. The markets won't believe it, and for very good reason—because the data, at least in the short run, are not going to give a rationale for raising rates largely because it's not going to be clear what is the supply-side effect and what is the demand-side effect. That confusion is going to stay with us for a while.

So I agree that if we want to restore the path of further interest rate increases, it's going to be next year, but it's going to be next year in the face of what in my judgment is going to be a set of heightened inflationary forces. And if that is the case, we will be way behind the curve because what we are looking at for sure is less economic output and more inflation, though the precise combination is not easy to determine. But if you have a measure of stagflation about which we could say we had virtually none of it a year ago, we're beginning to get some of it. We're trading off increased nominal GDP for real GDP. And this sort of process is going to continue for a while.

I think that pausing at this stage is highly risky, but not so much because of the issue of our technical capability to come back to our path and explain why we're raising rates. We could do it. We're an independent agency. If we saw very poor data but saw inflationary forces, we could raise rates. I think we'd run into very serious explanatory problems, and I think at the end of the day we wouldn't do it. I fear that we wouldn't, even though we probably should.

The question, therefore, gets down not so much to the notion of perception and our ability to move, but to what is the right thing to do. And the right thing to do in my judgment is to recognize, as several of you have mentioned, that the real risk imbalance is on the inflation side. If it turns out that we raise the funds rate today—I don't know what we're going to do thereafter—and the economy actually shows a weakening beyond the supply-side or gasoline-price-induced weakness, we have the capacity to move the rate back down sharply. For example, after 9/11, we opened up the faucets. On October 19, 1987, we just opened everything up. Nobody is going to complain if we suddenly reverse and start to pump money into the system, because the reasons for our doing that will be self-evident.

If, however, we pause here and the outcome I fear materializes, we could run into problems. I want to emphasize that I'm not pretending I know what the probabilities of that are. All I'm stipulating is that, on the basis of my experience, I sense that they are larger than we're projecting, mainly because our projections are based on the experience of the last 20 years. And the period of the last 20 years has been the most extraordinary period of beneficence in economic policy that I can imagine, helped a good deal by globalization and the excess of intended saving over intended investment.

This period is going to end at some point. I think it's just too risky to try to guess when that is going to be. And we ought to have a sufficient buffer out there when we start to run into some troubles because we don't seem to be able in this country to have buffers on anything. For example, we allowed our excess electric capacity to run down in California, as it did a few years ago. We've allowed our oil refinery capacity to run down. I can name a number of other examples in non-energy related areas. But what we definitely need at this stage is a buffer in the monetary policy area to be sure we're well positioned if it turns out that we're running into the early stages of stagflation. If it turns out that is not the case, all to the better. We may have put in more insurance than was necessary, but that insurance, in my judgment, is very well worth the cost. So I would opt for a 25 basis point increase in the funds rate with the language in the statement essentially that of alternative B in its most recently revised form.

Comments? President Lacker.

MR. LACKER. I support your recommendation.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, I support your recommendation. And having listened to your comments, I would like to invoke the central banker's prayer from Jackson Hole this year. It says, "Lord, if there be shocks, let them be varied and preferably moderate ones so that we can stress test our systems." [Laughter]

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Mr. Chairman, I support your recommendation. I agree with you on the indeterminacy of the supply and demand considerations. And I think your analysis of the ’70s and our understanding or lack of understanding of productivity growth at the time is important.

I’ll close with one other thing, the central banker’s anxiety, which is: “Good times are bad because they could turn out to be bad. Bad times are bad for obvious reasons.” [Laughter] I think you’ve given us a lesson in why these extremely good times are unlikely to be good for us in the long run.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I support your recommendation. I’m not sure we’re building a buffer here. I think this is a question of what we need to do. And to keep going, at least until we get some more clarification, I believe is the right thing to do.

MS. YELLEN. I support your recommendation, Mr. Chairman, and I agree with Governor Kohn that it is the right thing to do in spite of the greatly increased uncertainty.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I support your recommendation, Mr. Chairman. And having lived through the ’70s and played some part in economic policy in those days, I just remember that it was not pretty.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. Mr. Chairman, I continue to support alternative A. I would emphasize, however, in any description of it that it is a vote for leaving the funds rate unchanged as opposed to a pause. Indeed, that is what the wording would say—that we deferred further policy firming in light of the uncertainties surrounding Hurricane Katrina. I recognize that that’s very much a minority view.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Mr. Chairman, I support the increase of ¼ point today. I remain mainly concerned about the inflationary risk, and I think we need to continue on our path.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. Mr. Chairman, I support your recommendation.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Mr. Chairman, I support your recommendation. I have the same uneasiness I had at the last meeting—perhaps elevated this time—about one part of the statement. I’m not sure that the words about the inflation situation and the risks in the inflation outlook truly capture the tone of the discussion I heard in the last four hours. I think the concerns about pressures on both core and headline inflation are greater than this statement suggests. And I don’t think the statement language really captures your notion that the real risk is on the inflation side. I don’t expect to change the language today, but I would hope that by the next meeting we will think some more about whether we‘re being true to the discussion that we had in the meeting.

CHAIRMAN GREENSPAN. Well, it will be reflected in the minutes, which are now coming out three weeks after the meeting.

MR. GUYNN. And that will help.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I support your recommendation both in terms of the rate movement and the statement.

CHAIRMAN GREENSPAN. Thank you. President Stern.

MR. STERN. I, too, support your recommendation, Mr. Chairman. I have some sympathy with your warning about the 1970s and the way things gradually kind of got away from us. Having said that, I'd like to think that we'll succeed in conducting policy in a more effective way this time around.

CHAIRMAN GREENSPAN. I certainly hope so. [Laughter]

MR. POOLE. Mr. Chairman, I retain my preference for no change but I note that the market has priced in almost a 100 percent probability of a 25 basis point increase today. However, it has reduced the fed funds trajectory in the future and, unless the statement and the minutes change the market's view, I think it's important that we make clear that that's not necessarily the path we're on. By just increasing the funds rate 25 basis points now, if it does not change market expectations about the future, I think we will not be doing the full job. In any event, as I say, I retain my preference for no change but with a very clear statement of concern about inflation and the highly likely need for more restraint in the future.

CHAIRMAN GREENSPAN. President Fisher.

MR. FISHER. I support your recommendation for tightening. I still wish we would consider eliminating the words "measured pace." I like the last sentence in the first alternative that Vincent put forward as a substitute to that. I'd prefer adding that to alternative B without guidance. But if push comes to shove, I support you entirely, not only because it is the right thing to do but also because it gives us a buffer.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I support your recommendation. I think it's the best way to manage the risks that we currently face. I agree with you that if in the future the downside risks predominate, there are ways to deal with that. Now, though, I think the risks to our credibility and to inflation expectations—in light of the various inflation scenarios we face—are sufficient that keeping on our path of continuing to remove policy accommodation is the best way to go.

I also wish I had watched a little bit more of C-SPAN and spent a few minutes less on the 12-box matrix on our policy announcement. [Laughter] I'm happy to go with your recommendation.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. I support your recommendation.

CHAIRMAN GREENSPAN. Would you read the appropriate language?

MS. DANKER. I'll be reading the directive wording from page 27 of the Bluebook and the assessment of risk from exhibit 6 in the material that was passed out. For the directive: "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 increasing the federal funds rate to an average of around 3¾ percent."

Now for the assessment of risk: "The Committee perceives that, with appropriate monetary policy action, the upside and downside risks to the attainment of both sustainable growth and price stability should be kept roughly equal. With underlying inflation expected to be contained, the Committee believes that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability."

CHAIRMAN GREENSPAN. Call the roll, please.

MS. DANKER.

| | |
|---|---|
| Chairman Greenspan | Yes |
| Vice Chairman Geithner | Yes |
| Governor Bies | Yes |
| Governor Ferguson | Yes |
| President Fisher | Yes |
| Governor Kohn | Yes |
| President Moskow | Yes |
| Governor Olson | No |
| President Santomero | Yes |
| President Stern | Yes |

CHAIRMAN GREENSPAN. Okay. I request a recess and ask the members of the Federal Reserve Board to join me.

[Recess]

CHAIRMAN GREENSPAN. The Federal Reserve Board voted unanimously to approve the requests of the individual Reserve Banks for increases in the discount rate.

Our next meeting is November 1. We are now well overdue for luncheon with Governor Bernanke, and I suggest we adjourn to Dining Room E.

END OF MEETING