**Meeting of the Federal Open Market Committee on
September 21, 2004**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., starting at 9:00 a.m. on Tuesday, September 21, 2004. Those present were the following:

Mr. Greenspan, Chairman
Mr. Geithner, Vice Chairman
Mr. Bernanke
Ms. Bies
Mr. Ferguson
Mr. Gramlich
Mr. Hoenig
Mr. Kohn
Ms. Minehan
Mr. Olson
Ms. Pianalto
Mr. Poole

Messrs. McTeer, Moskow, Santomero, and Stern, Alternate Members of the Federal Open Market Committee

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

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

Messrs. Connors, Fuhrer, Hakkio, Howard, Madigan, Slifman, Tracy, and Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

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

Messrs. Oliner 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

Ms. Danker and Mr. Skidmore, Special Assistants to the Board, Division of Monetary Affairs and Office of Board Members, respectively, Board of Governors

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

Ms. Weinbach, 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 Assistant, Division of Monetary Affairs, Board of Governors

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

Mr. Judd, Executive Vice President, Federal Reserve Bank of San Francisco

Messrs. Eisenbeis, Evans, and Goodfriend, Mses. Mester and Perelmuter, and Messrs. Rolnick and Rosenblum, Senior Vice Presidents, Federal Reserve Banks of Atlanta, Chicago, Richmond, Philadelphia, New York, Minneapolis, and Dallas, respectively

Messrs. Bryan and Gavin, Vice Presidents, Federal Reserve Banks of Cleveland and St. Louis, respectively

Transcript of the Federal Open Market Committee Meeting on September 21, 2004

CHAIRMAN GREENSPAN. Good morning, everyone. Would somebody like to move approval of the minutes for our August 10 meeting?

MS. MINEHAN. So moved.

CHAIRMAN GREENSPAN. Without objection, they are approved. Dino Kos.

MR. KOS.[1] Thank you, Mr. Chairman. I'll be referring to the charts that Carol Low circulated a short time ago. In the intermeeting period, markets were generally calm, and investors perceived events with a generally positive outlook. Despite the Committee's tightening of policy on August 10, yields fell across the coupon curve, spreads narrowed, equities rose, and asset markets continued to exhibit unusually low volatility.

The top panel on the first page graphs the three-month deposit rate in black and the three-month rate three, six, and nine months forward in the dashed red lines since mid-June. The cash rate rose commensurately with the increases in the target fed funds rate. But forward rates have been falling gently at the same time, apparently as the softer data and more-tepid corporate outlooks caused market participants to revise their expected path of further monetary tightening.

The coupon curve has also declined. Two-year Treasury yields, which tend to be very sensitive to the funds rate, held firm and actually declined a few basis points since the last meeting, as shown in the middle left panel. But the ten-year yield continued to fall. This morning the yield was at 4.07 percent, not far from the mid-March lows before the strong April employment report. At this point the ten-year yield is again close to hitting levels that may trigger mortgage hedging activity that could send yields lower.

In part the fall in yields seems associated with the softer data—the revised and lower forecasts—and in part the persistence of high oil prices. The market is viewing higher oil prices as a restraining force far more than as an inflationary one. The net result is that the yield curve has continued to flatten. A flattening yield curve is not unusual in a tightening cycle. But the typical pattern is that the short end rises faster than the long end—which also rises. This cycle has had the anomalous situation in which the very short end is rising and the rest of the curve is falling.

How unusual is this cycle? The top of page 2 graphs the change in the two-year yield measured in basis points indexed to the date of the first tightening in recent

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

cycles—for 1994, the mini-cycle of 1997, 1999, and 2004. I did not include earlier cycles given the different policy and operating environment prior to 1994. As this graphs shows, the red line depicting 2004 stands out in that yields have fallen. We see the same pattern for ten-year yields in the middle panel. Finally, the bottom panel graphs the change in the swap spread also on the same basis. This last item has more variability, but again this cycle stands out in that spreads have actually narrowed since the beginning of the tightening cycle. Admittedly this is a limited sample, and one can argue whether 1997 should even be included, but it is notable in any case that the market's reaction has progressively become more benign as the Committee has become more transparent and the communications policy has evolved.

Moving to page 3, breakeven rates on TIPS have narrowed and that fall even accelerated as the price of oil again headed higher in recent weeks. Whereas earlier this year the correlation between TIPS breakevens and oil price changes was positive, it has now turned negative—again suggesting that the economic tax of higher oil prices is viewed as a more powerful force than its inflationary impact. The middle panels graph corporate and emerging-market spreads, which continued to narrow. Corporate issuance was on the low side, while investors' search for yield continued. And after a soggy July, equity prices have risen since your last meeting despite some downbeat corporate outlooks, the summer slowdown in retail sales, and a buildup of inventories in parts of the tech sector.

Extending this favorable picture is the continuing low volatility in many markets. Page 4 graphs the implied volatility for the S&P 500, the major currency pairs, and representative swaption contracts. These are similar to graphs I presented at the last meeting, so I won't go through them in any detail but only to note that implied volatilities remain low and in some cases are going still lower. The VIX equity implied volatility index is at about 14 percent, its lowest level in about a decade. This combination of low volatility, narrow spreads, stable or rising equity prices, and lower yields, even in the face of tightening monetary policy, is about as benign an environment as one can imagine. What is unclear is whether this happy set of conditions will persist or whether this is the calm before the storm.

One market that did see a bit of volatility during the intermeeting period was the fed funds market. After my June briefing, when I described how the fed funds market had become less volatile, this is a development I should have anticipated! [Laughter] Ironically probably the main reason for the volatility around the time of the last Committee meeting is the transparency of monetary policy and the confidence this gives reserve managers at banks to buy reserves to meet requirements before a well-anticipated rate increase. I'd like to spend the rest of my briefing on this topic. But let me step back a bit to summarize what we at the Desk do on a day-to-day basis.

Keeping the funds rate close to its target involves providing enough reserves over a maintenance period to allow banks to achieve two objectives. First, the injected reserves should allow the banks to meet all their requirements as well as their precautionary demands for excess reserves. Second, the reserves need to be injected at a measured pace to avoid undue risks that some banks will end any day overdrawn or that some banks will accumulate so many reserves early in the maintenance period that they risk holding unwanted excess levels by the end of the period. But managing reserves becomes more complicated when there is a great degree of certainty regarding changes to the target fed funds rate around FOMC meeting dates. When the expectation of a potential rate hike becomes priced into the interest rate futures market, these expectations also begin to show through to the funds rate in the days of the maintenance period immediately prior to an FOMC meeting at which an increase in the policy rate is anticipated. Reserve managers begin to shift their demand for balances to meet more of their reserve requirements ahead of the meeting, when rates are expected to be relatively cheap.

This reaction was exhibited during the reserve maintenance period leading up to the August 10 increase in the fed funds target, as shown in the shaded portion of the top panel on page 5. That panel depicts the target funds rate in black and the effective rate in the horizontal red line, along with the highs and lows for each day. With near certainty that the Committee would raise the target funds rate, the incentive for reserve managers was to accumulate reserves and bid up the funds rate. The Desk sought to lean against those pressures by adding more reserves than is typical at that point in the reserve maintenance period. The green line in the bottom panel graphs the average level of excess balances in that period compared with more-normal levels, the blue line. Perhaps the funds rate would have been even firmer had we not added the extra reserves. However, as we witnessed in that reserve maintenance period, there are tradeoffs in how the Desk reacts to a widely anticipated rate hike. The added reserves may be of limited effectiveness if expectations are very firm. And any buildup of high cumulative excess reserve balances in the banking system during the first half of the maintenance period will leave banks holding a much higher than normal level of reserves than they typically want at that stage in a period once the meeting date has passed. That could possibly set up conditions in which downward pressure on rates would emerge—whether the funds target was raised at the meeting or not.

This risk materialized after the August meeting because the Desk did not feel that it had the scope to reduce cumulative excess positions following the meeting date. Given the upcoming high payment flow day of the Treasury's mid-quarter refunding settlement on August 16, to do so seemed likely to exacerbate the expected upward rate pressures anticipated on that day. As we witnessed during this period, the high cumulative excess positions eventually led to very high levels of volatility. The latter worked their way into trading as the end of the maintenance period approached, with trading well below the new target rate as well. At the same time, it's questionable what impact the high levels of excess reserves provided early in the period had in damping rate pressure before the change was announced. Evidence suggests that that effect was only limited.

As the Desk will continue to face these challenges in a rising interest rate environment, it may be prudent to battle firm trading conditions less aggressively prior to a widely anticipated hike in the funds rate. While providing some level of reserves in excess of median levels in the midst of firm trading may be warranted, we are likely to be cautious in our provision, recognizing the risks that arise from high cumulative balances subsequent to the actual rate movement.

Mr. Chairman, there were no foreign exchange operations in the period. I should note that tomorrow will mark four years since the last intervention by the U.S. monetary authorities. This continues the longest period of non-intervention by the U.S. monetary authorities in the floating rate period. I will need a vote to approve domestic operations.

CHAIRMAN GREENSPAN. Shouldn't your next-to-last sentence be, "Noted and complimented"? [Laughter] Why do we bother intervening at all in the functioning of reserve markets a week or so before an FOMC meeting?

MR. KOS. Well, that's an excellent question. The charge that I at least believe I have from this Committee is to achieve—

CHAIRMAN GREENSPAN. That is readily changed. [Laughter]

MR. KOS. Well, okay. But in the regime under which we are now operating, as far as I'm aware I'm expected to try to achieve the target fed funds rate every day. So despite the fact that the market is expecting a higher funds rate, until the Committee decides to raise its rate objective, we're still working under the old directive.

CHAIRMAN GREENSPAN. If I might say so, it sounds absurd on the surface, and it sounds absurd beneath the surface as well! [Laughter]

MR. REINHART. But, Mr. Chairman, the alternative would put Dino in the position of giving a signal of your action at the upcoming meeting.

CHAIRMAN GREENSPAN. All he needs to do is to state what his intentions are in advance. In other words, he can indicate that he will supply a certain amount of reserves over a specific period. The current approach is clearly not the optimal policy procedure. I’m not sure it’s doing any harm or causing problems, but I can conceive of a situation in which we might find that the injection of reserves on the upside or on the downside leads to an inadvertent effect if an external event occurs in the process when you’re reestablishing the balance later in the maintenance period.

MR. KOS. Well, what you’re suggesting would make our task easier. We felt somewhat uncomfortable with the result in that final reserve maintenance period in August, so I think doing what you suggest would make our life a lot easier.

CHAIRMAN GREENSPAN. May I make a request? I’d like to ask you and Vincent to be a committee of two to do an analysis of this problem. And then will you submit possible alternatives to the current procedure at the next FOMC meeting?

MR. KOS. Yes.

CHAIRMAN GREENSPAN. Is there agreement on that? Or would somebody like to make a comment?

VICE CHAIRMAN GEITHNER. Of course, I have no objection to a study. But I think Vincent has it right when he says that the implications of the regime you are proposing, which as I understand it is for the Desk to pre-commit to some amount of reserves that it is going to add independent of—

CHAIRMAN GREENSPAN. I’m saying that may be a possibility. Let me put it to you this way: All I can say is that, on the surface, the way we’re doing this now doesn’t seem right to me. To be sure, we’ve gone through this experience several times, and it has had no adverse consequences. The reason it has had no consequences, possibly, is that there were no intervening events in the rest of the maintenance period that required an adjustment. Now, it may turn out upon reviewing this issue that the existing policy has no alternative, but I doubt it. Let me withdraw my request at this point because I had assumed the need to look at this was self-evident, but it is not self-evident. As a consequence, I think we ought to open the matter up for further discussion. Are there any other comments on this issue? President Minehan.

MS. MINEHAN. I'm totally confused here. I thought the volatility came about as a result of Dino's implementing the existing directive of the Federal Open Market Committee. I would not like to see him implement anything other than that until the Committee meets and adopts a new directive. Maybe I'm misunderstanding you. I must be.

CHAIRMAN GREENSPAN. Well, there have been very serious questions over the years about whether the Desk should be trying to lock in the desired federal funds rate every single day. So, first of all, the funds rate has not been at 1½ percent.

MS. MINEHAN. Correct. It hasn't.

CHAIRMAN GREENSPAN. So whether that degree of rigidity should be involved here is no longer an issue. It's now a question of the degree of deviation from the objective, not whether there should be any deviation. In that sense, if we want to read the directive explicitly, Dino has breached the authority given him—which I'm glad he did.

MS. MINEHAN. Yes. I tend to think of it as two forces at work; there's the market and then there's Dino. Dino is trying to do what we told him to do, and the market is trying to do what it wants to do. I agree with you that there may be some way to look at an average target over a period of days. I just thought you were saying that he—

MR. KOS. Well, I think it would be very awkward to have any kind of pre-commitment—I'm not sure if that's the right word—about reserves unless we were to do that in every period.

CHAIRMAN GREENSPAN. There could be other ways of doing it. I don't necessarily see all of the commentary about Desk operations. Has anybody commented on specific deviations from the funds rate target—other than the obvious anticipatory arbitrage against a potential rise?

MS. PERELMUTER. No. This situation has arisen only around the FOMC meetings; it is just in the maintenance period encompassing a meeting when this sort of activity begins. In the previous period of this intermeeting interval we were, as you know, close to the 1½ percent objective. But as soon as we got into the current maintenance period on Thursday, banks began trying to build up reserves and to buy them cheaply. That's all people are saying. And they figure we're managing reserves to meet demand.

CHAIRMAN GREENSPAN. Remember, there's another aspect of this. By Committee desire, we have been changing the funds rate only at meetings. That was not the case in the past. So there's another element implicit in this to which the market is adjusting. All I'm saying, though, is that the current practice does not seem to me to be the optimum, thoroughly thought-out procedure to guard against the one single issue that we haven't faced—a shock in the maintenance period subsequent to the Committee's decision.

MR. KOS. Having a two-week reserve maintenance period and operating on a daily basis to achieve the funds target daily will result in the market trying to anticipate moves that may happen within the maintenance period. It's not a stable equilibrium. We'd have to give it some thought, but I'm not sure what the obvious solution to that is.

CHAIRMAN GREENSPAN. Well, there are numerous people around this table who are far more familiar with the actual mechanical operations on a day-by-day basis than I. But just looking at the final result, it seems clear to me that something here doesn't work as well as it should and that there may be better ways of doing it. That's all I'm saying.

MR. REINHART. We often consider alternative ways of implementing policy, and in light of this discussion, the committee of two will look into the issue, for sure, Mr. Chairman. I would just note another observation that Dino made in his briefing, which is that implied volatilities are quite low. So the cost associated with a somewhat more volatile overnight rate doesn't have much consequence if the Committee also has anchored down expectations about the target rate.

CHAIRMAN GREENSPAN. And no adverse event occurs during the maintenance period. It's only that that matters. There's no credible argument, if there is no adverse event, that these intra-maintenance-period fluctuations have any lasting significance, as best I can tell.

MR. REINHART. And I'd make another observation. If one looks at the pattern of fed funds futures contracts, in the months in which there are no meetings scheduled, one can see that the probability of an intermeeting move has gone down to as low as it gets. The Committee's decision to remove policy accommodation at a measured pace has signaled to markets that it's a decision that is made at meetings. So they have a fixed target, and that, therefore, puts Dino in the sights of the fed funds traders. But the consequences, in normal times, seem fairly manageable.

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. The way we operate, Dino is asked to supply reserves against two different demand curves—a maintenance period demand curve and a daily demand curve. And there's a yield curve relationship within a maintenance period that ties the daily rates together. To ask him to make the funds rate do this step function I think is asking a lot. That would be asking him to disrupt markets to some extent on a day-to-day basis, pushing against the fear of overdraft and the fear of lock-in on the part of banks. That doesn't seem to make sense to me either. To Vincent's point, the fed funds futures market builds in an expectation of this step function. What we're asking Dino to do is not to fight against that. We're not asking him to tip our hand; we're asking him to go along with what the yield curve says about what the rate is going to do after the meeting. I don't see that as prejudicing the Committee's discretion.

MR. KOHN. I'm not sure.

MS. MINEHAN. I'm not sure.

MR. KOHN. I would be very, very careful about asking the Desk to do anything that seemed to prejudge what our action would be at the next meeting. Moreover, it could be that the cost of having the Desk not prejudge that—the cost of this very aggressive daily supply of reserves, which we've gone to more and more over the last few years—is a little more fluctuation in excess reserves. If the Desk supplies reserves on a daily basis, with contracts that mature frequently, I'm not sure what the problem is.

CHAIRMAN GREENSPAN. Should the Desk today and yesterday create sufficient reserves to keep the funds rate at 1.5 percent?

MR. KOHN. Yes.

MS. MINEHAN. Why not?

CHAIRMAN GREENSPAN. He's not doing it right.

MR. KOHN. Well, he's trying.

CHAIRMAN GREENSPAN. Now, wait a second. He has no limit on the amount of reserves he can create at will. You cannot tell me he is trying and failing; he's just not pushing the button hard enough.

MR. KOS. Mr. Chairman, if I could? One thing that President Lacker pointed out is that, if we operated more than once on the first day of the reserve maintenance period, we could create as much reserves as possible, and we'd probably do a better job of achieving the target rate on that first day. The cost of that, though, is that in subsequent days we might have a very low funds rate for the rest of the reserve maintenance period. Therefore, over the period as a whole we might have a rate that is below the target. So there is a tradeoff here.

CHAIRMAN GREENSPAN. I didn't mean to get into this. [Laughter] Unless others wish to raise significant issues about this today, let me ask you the following: Does everybody agree that this is a subject that we should at least get some further insight into and that we should leave it to our two professionals in this area to advise us? Go ahead, Governor Bies.

MS. BIES. I just want to add one other point. One of the reasons this is happening is that we're communicating so well and we have a lot of credibility. Every desk manager and every banker knows pretty much when rates are going to move, and we give them the luxury of a two-week period in which to meet their required reserves. So when a bank has two weeks to meet that requirement and can save 25 basis points on the cost of their reserves, management is going to pick the time to do it. They would do the same if they were expecting us to drop rates in a given maintenance period. So part of the problem is the luxury of the time they have—the two-week maintenance period—to meet their average for required reserves. It may be worthwhile to look at the length of the maintenance period again as part of this review because the whole process of reserve management has really changed. This is a profit center operation in a bank. They're acting totally rationally, and I just don't want to jeopardize the credibility that we have in the market now.

Another question is how much the quarterly funding of the Treasury entered into the picture in the recent period. Its occurrence in the same maintenance period probably also created some of this unusual noise. In any event, I think we finally have gotten a lot of credibility in the market, and we need to be really careful what we do. It may be that we ought to go back and look at the fact that, especially in this period, banks have much lower reserve levels than they've ever carried—they avoid reserves. They have such a low level of reserves, and there's a large amount of movement that the reserve desk can do every day in a bank. That's another issue, because banks are doing whatever they can to avoid reserves.

CHAIRMAN GREENSPAN. For the same reasons we've created the carry trade, because if you lock in with some permanence one leg of it, that reduces the risk—

MR. KOS. Could I just make one small point? In a sense, after '94 the Desk was taken out of the business of signaling policy changes, which was a positive development.

MR KOHN. Absolutely.

MR. KOS. I think one thing we should be careful of is not to get back into that practice by having either a signal or a non-signal be taken from what the Desk does. That would not be something that I think this Committee would welcome. Certainly we at the Desk wouldn't welcome it.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. I'll pass. Governor Bies just said what I wanted to say.

CHAIRMAN GREENSPAN. Okay. President Santomero, do you want to say a word before we end?

MR. SANTOMERO. Let me just point out that there is a long literature on the mechanics of our intervention on a daily basis. I support your notion of updating that literature and looking into this; it might be useful. But this is not the first time we've looked at these kinds of issues.

CHAIRMAN GREENSPAN. Strangely enough, it's the first time, in my recollection, that we have projected a potential path of monetary policy in a manner that was wholly credible to the market, which is what has created this very unusual situation.

MR. SANTOMERO. I agree 100 percent. But there is a literature on this subject that we can connect to. And the staff can do a good job of reviewing that and bring us up to date.

CHAIRMAN GREENSPAN. Questions on other issues to Dino? If not, would somebody like to move to ratify the domestic transactions in the System account?

MR. POOLE. So moved.

CHAIRMAN GREENSPAN. Without objection they are approved. David Stockton and Karen Johnson, please.

MR. STOCKTON. Thank you, Mr. Chairman. Judging by the standards of the last few meetings, perhaps the biggest news is that we have made no major changes to our Greenbook forecast since it was published last Wednesday. Of course, I'll admit that it helps when there are few data to get in our way. But even reaching back to the August projection, much of the incoming data on production and spending have, on balance, come in pretty much in line with our earlier expectations that the expansion would regain its footing as we moved into the second half. Indeed, last week's release of industrial production indicates that a solid expansion remains under way in the factory sector. Manufacturing output increased ½ percent last month after an upward-revised increase of nearly 1 percent in July, and gains in recent months have been widespread across industries. Reports from regional and national purchasing managers have been similarly upbeat. For the quarter as a whole, factory output appears likely to increase 6¼ percent at an annual rate.

Likewise, the spending data have, for the most part, remained firm. Purchases of light motor vehicles averaged nearly 17 million units at an annual rate in July and August, about ½ million units above the pace of the first half of the year. These figures along with the retail sales data put real PCE on track for a 3¾ percent increase in the current quarter, considerably faster than the 1½ percent pace registered in the second quarter. Housing starts—just released this morning—reached 2 million units at an annual rate in August. Ongoing strength was especially evident in the single-family sector, where starts edged up to 1.67 million units from an already elevated level. Business spending, as well, looks to be advancing smartly. Orders and shipments for a broad variety of capital goods have been moving up, and backlogs of unfilled orders in many industries have continued to mount. Real spending on equipment and software is projected to increase 13 percent in the current quarter, about in line with the sizable second-quarter advance. Meanwhile, nonresidential construction activity has surprised us to the upside, and the odds are looking better for a continuation of the recovery that appears to have gotten under way earlier this year. Even the government is chipping in, led by a surge in current-quarter outlays for defense. All in all, the catalogue of positive developments has been encouraging that the expansion is not faltering. On balance, the incoming data leave our estimate for the level of real GDP in the current quarter about the same as projected in the August Greenbook.

If that is all that had transpired over the past six weeks, this would have been a reasonably quiet forecast round. But it was not. At the considerable risk of finding myself classified in the taxonomy of Governor Schwarzenegger as an economic girlie-man, [laughter] let me admit to harboring some pessimistic perspectives on recent developments. While near-term GDP was not much affected by the incoming data, we had to deal with a slug of incoming information that suggested to us that the economy has less momentum going forward than we had previously been expecting. Chief among our concerns has been the employment situation. Gains in payroll employment in recent months have been well short of our earlier expectations. At the time of the August Greenbook, we were projecting employment gains to average about 300,000 per month in the second half. With two months of data now in hand, private payrolls appear more likely to increase in the neighborhood of 120,000 per month in the current quarter, and we have lowered our fourth-quarter projection to gains of 200,000 per month. A higher workweek and somewhat larger increases in average hourly earnings have provided some offset to the weak hiring, but we still have a substantial shortfall in labor income in recent months relative to our August expectations. In addition, wage and salary income was revised down considerably in the first half of this year on the basis of unemployment insurance tax records. Those revisions and the weaker employment gains of recent months have pushed the personal saving rate below 1 percent in the current quarter—nearly ¾ percentage point below our August projection. All else being equal, the lower level of income implies somewhat greater restraint on consumption going forward, and thus a steeper rise in the saving rate than we had incorporated in our previous projection.

Another negative for the outlook was the loss of prospective stimulus from inventory investment. The pace of stockbuilding in the second quarter of this year now appears to have been considerably faster than was estimated last month. That step-up in the pace of stockbuilding along with weaker final sales appears to have brought inventories into more comfortable alignment with sales sooner than we had been expecting. Indeed, in our August projection, inventory investment was a source of stimulus to production in the second half of this year. It now appears that the bulk of that stimulus is already behind us. We have also had to contend with less favorable news from the technology sector. The recent shipments figures for computers and communications equipment were to the soft side of our expectations. Moreover, reports from a number of leading technology companies have been relatively downbeat about the outlook for earnings and sales. Intel, Cisco, and Gartner Group have all indicated some deterioration in near-term prospects. There has also been a noticeable slowing in the pace of high-tech production, concentrated in computers and semiconductors. We do not believe that these developments are signaling the start of a serious slump, but they have led us to temper our outlook for high-tech investment this year and next. Proving that we can find dark clouds on even the brightest horizon, the recent lower-than-expected readings on price inflation implied that our August path for the nominal federal funds rate was, in real terms, exerting a bit more restraint on demand over the projection period.

Putting these pieces together, we had a forecast in which no progress was made in reducing the margin of slack in resource utilization and in which price inflation notched still lower. That outcome led us to flatten the assumed trajectory for the funds rate by 50 basis points by the end of next year—an adjustment that was sufficient by our reckoning to result in a gradual reduction in the output gap. I should note that market participants also appear to have marked down their expectations for policy at the end of next year by a similar amount. As a consequence, we still have a shallower assumed uptrend for the funds rate than is currently embedded in fed funds futures. In our projection, the funds rate is assumed to move up to 2¼ percent by the end of next year and to 2¾ percent by the end of 2006—an endpoint roughly 60 basis points below current market expectations.

We see several key features of the current economic landscape as suggesting to us that such a gradual tightening of policy will be sufficient to contain inflation pressures while promoting an eventual elimination of the output gap. First, fiscal policy is expected to swing from the substantial stimulus of the past three years to mild restraint in 2005. We are probably already experiencing the front edge of that diminishing stimulus. In our projection, fiscal policy over the next year is doing some of the work that would otherwise be required of monetary policy. Second, as I noted earlier, the reversal of the low level of the saving rate imposes restraint on spending going forward. Not only is the current level of the saving rate below our estimate of the target, but the target itself is likely to be moving higher as interest rates increase. Third, the external sector is expected to be a considerable drag on activity in the United States, as domestic and foreign demands are increasingly directed away from U.S. producers. By 2006, real net exports are expected to knock more than ⅔ percentage point off the growth of real GDP. Karen will have more to say on this issue shortly, but suffice it to say here that our widening external deficit creates a stiff headwind for the economy. Finally, our shallow path for the funds rate also reflects our relatively optimistic outlook for price inflation. In our projection, the remaining margin of slack in resource utilization, a small decline in domestic energy prices, and a leveling out of non-oil import prices result in an edging down of projected core consumer price inflation from about 1½ percent this year to 1¼ percent over the four quarters of 2006.

Even with our revisions, we see some clear downside risks to the projection. While the incoming data have been encouraging of the view that the soft patch is receding, the data have hardly been definitive on that point. The run-up of energy prices this year could well be exerting greater restraint on household spending than we have allowed for in our projection. Moreover, it has created yet another source of uncertainty with which businesses must cope. Indeed, the vocabulary of business caution seems to have crept back into discussions of the hiring and capital spending plans of our industry contacts. If these concerns are more pervasive or more severe than we have implicitly recognized in the projection, the soft patch could prove more persistent in coming months.

Of course, we readily concede that we may have overreacted to some of the softer economic indicators of recent months. There are a number of reasons that one could be concerned that the low level of the funds rate assumed in our projection will stimulate faster economic growth, higher price inflation, or both. For one, simple historical relationships between the real funds rate and the output gap suggest that the level of the funds rate assumed in our projection has, on average in the past, resulted in a much more rapid closing of the output gap than we are forecasting. We used such a simple relationship to calibrate an alternative simulation for the Greenbook, and the accompanying surge in demand in that simulation not only closed the output gap but resulted in some overshooting of potential by the middle of next year. Our problem with adopting something like this for the baseline is that we don't currently see the harbingers—stronger asset-price appreciation, a weaker exchange value of the dollar, or more-rapid increases in interest-sensitive spending—that we think would both signal and stimulate a more vigorous track for activity.

Another resolution to this possible tension is that the output gap could already be much smaller than we are estimating. In other words, the low real funds rate of the past few years may already have done its work. Of course, the implication going forward is that the economy has less room to grow than we think. Again, we illustrated this possibility with an alternative simulation that embodied a higher estimate of the NAIRU and a lower estimate of the trend rate of labor force participation. On our assumed path for the funds rate, the economy again overshoots potential, and core price inflation moves up steadily from current levels. Such an outcome is, no doubt, plausible. Our ability to measure the economy's productive potential is limited, and the profession has not distinguished itself in this endeavor in the past. Moreover, some employers are reporting that it has become difficult to locate workers with the skill sets that they need, providing a hint that the labor market may be tighter than we are estimating. But in the end, we are unpersuaded. The participation rate and the employment–population ratio are very low, and the declines in those measures in recent years coincided with the weakening labor market. Also, survey evidence suggests that, while household and business perceptions of the labor market have improved, those perceptions remain well short of the conditions that prevailed at other times when inflation pressures emerged.

The actual inflation data themselves are considerably more ambiguous on the question of whether we have overshot potential. Certainly, the recent data have been more encouraging. After hitting a high of 2¼ percent at annual rate in March, the three-month change in the core PCE price index through August appears to have receded to below 1 percent. Just as the earlier pace likely overstated the emergence of inflation pressures this year, the most recent figures probably overstate the dissipation of those pressures. Our best guess is that the underlying pace of core consumer price inflation is about 1½ percent at present. That still represents some pickup from last year's 1¼ percent pace. We believe the acceleration in core prices this year can largely be explained by the indirect effects of the steep increases in energy prices and by the larger increases in import prices. But we can't rule out the possibility that labor and product markets are tighter than we currently estimate.

In sum, we are expecting moderate above-trend growth, moderate erosion of the output gap, a moderate drop in inflation, all brought about by a moderate rise in the federal funds rate. Yes, we too know that it will never come to pass; but we are satisfied that we have produced a forecast in which we don't know the most likely direction of the surprises.

Before handing the baton to Karen, let me return to the dark clouds for a moment. Here, I don't mean the ones that the staff has conjured about the outlook, but rather the ones real people see when they look out the window. As the Greenbook went to press last week, Hurricane Ivan had yet to make landfall. The storms of the past month are bound to leave an imprint on the economic data, though most of the effects will be on the income side of the accounts. A big jump in economic depreciation is likely to be matched by lower rental income, lower proprietors' income, and reduced corporate profits. As far as real activity is concerned, we simply don't have enough information yet to reach an informed judgment about the possible magnitude of any effects on spending or production. But as devastating as these events have been for so many people, we are not expecting the effects to be large enough or persistent enough to have any implications for your policy.

MS. JOHNSON. The baseline forecast for real output growth in the rest of the world is little changed from that in the August Greenbook. This is the case despite substantial market volatility of, and much media attention to, global oil prices. The primary reason is that despite the intermeeting fluctuations, the path of oil prices implicit in futures prices showed little net change from the path incorporated in the August Greenbook. We did look very carefully at the question of how the effects of elevated oil prices are likely to be distributed across foreign economies. And there are differences among industrial countries, emerging-market economies, net oil importers, and net oil exporters. Nevertheless, the basic common elements of reduced oil intensity in several foreign countries, especially the foreign industrial countries, and well-anchored inflation expectations in most important foreign economies, along with the expectation that only a portion of the spike in spot prices will prove to be persistent, have led us and most forecasters to judge that the output effects of recent oil market developments will be limited.

Our initial projection for growth abroad in 2006 is that foreign real GDP will expand at about 3¼ percent, a slight deceleration from the 3½ percent annual pace of the second half of this year. Among the industrial countries, most of the stepdown in growth is accounted for by Canada and the United Kingdom, countries whose economies have been expanding particularly rapidly, closing their output gaps, and that need to bring growth in line with potential in order to avert the emergence of inflationary pressures. The central banks of both those countries have already moved to tighten policy, with the Bank of Canada tightening 25 basis points earlier this month and the Bank of England increasing rates by a total of 125 basis points since mid-2003. Some deceleration is also projected for the Asian developing economies on average, particularly in Malaysia, Singapore, Taiwan, and Indonesia. Elevated oil prices are boosting headline inflation abroad, but core price inflation, where data are available, appears to be well contained. Over the forecast period, we expect inflation abroad to decline gradually as oil prices reverse some of their recent run-up and as food prices, which have been a factor in Asia, retreat in response to increased supply, and as monetary tightening in Brazil and Mexico have some effect.

Extension of the forecast horizon to the end of 2006 allows the effects of returns to near-trend growth here and in most regions abroad to show through to our projections for real net exports, the nominal trade deficit, and the current account deficit. The consequences of weakness in activity here and abroad earlier, past dollar depreciation, and sharp swings in oil and nonfuel commodity prices will have been pretty much fully felt by the end of 2005. For this forecast, we have projected slightly more rapid depreciation of the dollar than previously, with the broad dollar decline averaging nearly 1½ percent in real terms in 2005 and 2006. We judge that such an outcome in relative income here and abroad and in price competitiveness of U.S. goods would lead to a widening of the nominal U.S. trade deficit of about $90 billion from its current average through the last quarter of 2006. In addition, prospective increases in market dollar interest rates, along with other factors, imply that U.S. net investment income will move into deficit, declining nearly as much as the trade deficit over the same period. As a result, our projection for the current account balance widens from about $700 billion this quarter to nearly $880 billion in the fourth quarter of 2006, reaching about 6½ percent of GDP. In real terms, there is an equivalent deterioration. The positive contribution from real exports to overall GDP growth slowly diminishes from more than 0.8 percentage point this year to less than 0.7 percentage point in 2006. And the negative contribution from imports remains above 1 percentage point, reaching 1.3 percentage points over the four quarters of 2006. There is thus a persistent subtraction from U.S. GDP growth that arises from the external sector and that reaches about ⅔ percentage point in 2006. The slight deceleration in real export growth primarily reflects a lessening of the past impetus coming from relative prices, particularly from the exchange rate. Similarly, the strengthening in real import growth arises largely from a relative price boost. Of course, real export growth would have to exceed that of real imports substantially at this point for real net exports to have a neutral effect on the forecast for U.S. GDP growth.

Only a few forecasters have added 2006 to their outlooks. Although we are not absolutely alone in anticipating a marked deterioration in the external balance over the next two years, many forecasters currently call for little change from this year to next. For example, the average current account deficit polled by Consensus Forecasts is about $625 billion for both 2004 and 2005. Of course, some of the individual outlooks in that average call for the deficit to widen, but some actually project a narrowing. Plus, a number above $800 billion for 2006 seems to be way off the radar screen of most forecasters.

Our view that the current account deficit will widen into rather startling new territory reflects the large size that the deficit has already reached and our projected path for the dollar. Trend growth here and abroad is consistent with the deficit widening further unless relative prices change, and the present large deficit means that the decline in the nominal balance moves quickly as likely growth rates yield rapidly diverging exports and imports. This poses a severe challenge to us with respect to our projection for the exchange value of the dollar in the baseline forecast.

For some time we have taken to heart the results of research that we and others have done that shows that structural models of the exchange rate have little forecasting power. Accordingly, we have incorporated into the forecast paths for the real value of the dollar that are nearly flat, with some slight trend at times to signal features of the maintained assumption about U.S. monetary policy or our ongoing concern that the financing of the U.S. external deficit would ultimately result in downward pressure on the dollar. But that strategy now results in the external sector having a very prominent effect on the top-line GDP path. Moreover, as the numbers we are writing down get larger and larger, we are beginning to have doubts that financial markets will be able to manage them easily. However, no clearly better alternative comes to mind. If we arbitrarily projected a path for the dollar that minimizes the negative effects coming from the external sector, then we would be masking an important feature of the U.S. macroeconomy, and that dollar path, rather than net exports, would become the essence of the international forecast. Because we do not believe that we truly can project when any major change in the value of the dollar will happen, in particular whether it will happen within the forecast interval, we do not see any basis on which we could follow that strategy. For now, we have used the alternative simulation in the Greenbook to suggest to you what would be the consequences of a sharp move in the dollar sometime in the forecast period. As awareness of the looming external deficits becomes more widespread, we may see more clues in financial markets as to what to expect from them. Dave and I would be happy to answer any of your questions.

CHAIRMAN GREENSPAN. For the first time, Karen, you seem to be painting a short-term picture of an unsustainable pattern in the current account deficit. As I have listened to you in the past, the issues as I've heard them are that we always talk of the need for a much higher rate of increase in exports than imports to close the huge existing gap between them. You are now raising a somewhat more subtle issue in which it is not only the gap but the absolute size of the foreign trade magnitudes relative to GDP that have an accelerating impact. In other words, if we had a very small external sector but a very large difference between imports and exports, the percentage of the current account deficit to GDP would be small despite that sizable percentage difference in the growth of exports and imports. But now that the trade numbers are getting larger and larger in absolute terms, their impact on GDP—other things being equal with regard to the ratio of imports to exports—is becoming ever larger and a source of increasing instability. The reason is that, as the current account deficit continues to widen because the growth of exports fails to exceed that of imports, the bases of both are changing. And if under such conditions the deficit is rising relative to the GDP, we have an arithmetically unsustainable pattern even in the short run.

MS. JOHNSON. Well, I like to avoid the words "unsustainable" or "sustainable" because then you'll ask me what makes something sustainable and I can't answer that question.

CHAIRMAN GREENSPAN. I'm not asking a question, I'm just making a statement.

MS. JOHNSON. I absolutely agree with everything you said.

CHAIRMAN GREENSPAN. Am I inferring correctly what you say?

MS. JOHNSON. Yes. And where we saw it most clearly was when it came time to look at the contribution of those numbers to GDP. In the past, there were those of us, such as myself, who were somewhat of a Cassandra regarding the external deficit, but we were talking tenths of a percentage point one way or another in terms of the effect on GDP. The notion that the effect would get swamped by the unanticipated ups and downs that would come along in the forecast period was always present, and the external sector didn't seem to be creating a situation that would strike financial market participants as unmanageable.

This time, as we worked our way through preliminary runs of the forecast, the negative contribution from the external sector got up to be almost 1 percentage point of GDP. Well, we finally settled on something a bit smaller for 2006. But 1 percentage point of GDP gets one's attention; in fact, ⅔ percentage point of GDP gets my attention. So the reason that this seemed an opportune time to call extra attention to that point is that, when we first extend the forecast horizon, as we have now into 2006, it gives us a longer time period over which these kinds of forces are having their effect. This is a very inertial process, so one has to look ahead more than just a few quarters to see its consequences.

We don't know much else about 2006, so we don't have information that would lead us to say, "Oh, a U.S. recession is going to cause imports to fall," or "A crisis in Asia is going to cause capital inflows to be particularly high." We don't know what kinds of other random events are going to occur in 2006. All we're seeing is this long-lasting fundamental process, and we're seeing it very clearly. Surely, the numbers we're forecasting right now for 2006 will not actually happen; I fully appreciate that. But they will be embedded in what does happen, and this is an opportunity to see them more clearly before the outlook gets complicated by other developments.

CHAIRMAN GREENSPAN. I think that's a very useful insight.

MR. STOCKTON. Let me just provide a little domestic-side perspective on that. Obviously, one of the issues that we were struggling with in this projection is that we have a surprisingly shallow trajectory for the funds rate. And you might wonder why that isn't showing through more forcefully in this forecast, but it is on the domestic spending side. We have for private domestic demand an acceleration of 1¼ percent this year, which moves up to 4½ percent next year and to 4¾ percent in 2006. The reason that isn't showing through to top-line GDP and production is that, on our dollar and net export forecast, a lot of that demand is showing up in demands for producers abroad not in demands for producers domestically.

CHAIRMAN GREENSPAN. I have one quick question on energy issues. On virtually all the previous occasions when oil prices went up, it was difficult to distinguish between rising prices of gasoline and home heating oil and rising crude import prices. So the estimate of the tax effect from imported crude and the impact of gasoline prices on PCE gave roughly the same answers, as I recall. We have an unusual test period in the second and third quarters of this year—in fact, probably all of this year—in which, because of the huge differential spreads in refinery marketing, we're getting different results. Does that enable us to econometrically differentiate where the real impact is? In other words, does it show up in the equations in shortfalls of consumption expenditures as a consequence of the rise in gasoline prices or a later rise in crude oil prices? Or is it too soon to make that judgment?

MR. STOCKTON. I think I can say unequivocally that on the econometric side a couple of months of extra data are not going to allow us to identify these things. Now, there is an interesting coincidence that consumption was especially weak not only as oil prices were rising but as margins were increasing substantially, and there was some improvement in consumption in August, as margins shrank very dramatically and prices came down. So there could be some small nod in the direction that you suggested, but it would be hard for us to distinguish those relationships. One reason to be a little skeptical about just using a model run—model multipliers on the energy effects—has been that we don't see the offsetting strength in drilling activity. Drilling activities improved and improved noticeably, but not as much as we would have expected especially given that far-dated futures have increased quite a bit. So there could be more restraining effects of higher oil prices this time around than has been true, on average, in the past because we're not getting some of the natural offsets that occur.

CHAIRMAN GREENSPAN. An interesting question is whether drilling is a function of profits at the production level, which one has always assumed to be the case, or if the aggregate consolidated profit is more relevant. I say that because the implication here is that the propensity to spend out of the refining marketing margin may be much lower than the propensity to spend out of the profits from crude and natural gas production, which would signal another way of coming at this particular issue. President Yellen.

MS. YELLEN. I have a question for David. I think one way of summarizing the Greenbook forecast is to say that the equilibrium real federal funds rate that is implicit in that forecast is very low. As I read it, it's on the order of 1 percent, which I interpret as very depressed relative to the equilibrium real funds rate that would be implicit in the FRB/US model, for example. I would find it helpful if you could pinpoint what the source of this divergence is. By that I mean which components of spending or aggregate demand do you see as particularly depressed relative to what the FRB/US model would predict? Where are the model's residuals large? A related question, in light of the comment that you just made, involves the gap between the Greenbook forecast and the FRB/US model forecast of the exchange rate. Simply running the model, given what has happened to net exports, I suspect that one would predict a substantial decline in the real exchange rate. The Greenbook is projecting a much flatter path of the real exchange rate. Is it because net exports are the big source of the divergence that you have the very low equilibrium funds rate?

MR. STOCKTON. To start with the last question, just as a benchmark we ran an alternative model simulation in which the real exchange rate depreciated at a 5 percent annual rate over the forecast period, in contrast to the 1½ percent decline that we've actually built into the forecast. That 5 percent decline produced enough additional growth and a little extra inflation so that, if one were to apply a Taylor rule to that outcome, the funds rate path would be just about on track with current market expectations. So that certainly would be one way to reconcile the difference between our forecast and current market expectations of the funds rate.

MS. YELLEN. And is that what the FRB/US model would predict?

MR. STOCKTON. Yes, that was with FRB/US. I would say that Karen, if she were to run FRB/Global, might come up with slightly different estimates, but we do see that as an important element. Now, in terms of explaining the difference between the implicit equilibrium funds rate in the staff forecast and that which FRB/US would produce, a couple of things stand out. One is that interest-sensitive spending in the judgmental projection looks soft relative to what the model would expect. Interestingly enough, that's surprisingly so in household interest-sensitive spending; the model wants to see considerably stronger housing investment and also stronger consumer durables. The model also thinks that—take it for what it's worth—the stock market should be stronger and the exchange rate should be weaker. Those actually are the three most important components of the difference in how we see the outlook from what the model would expect. In both cases of projecting asset values—for both the stock market and the exchange rate—we’ve taken a sort of neutral approach to the forecast. But there are reasons for being skeptical about that going forward.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. My question actually relates to this last discussion. I want to ask about the alternative simulation on the international side—the 30 percent decline in the real value of the broad dollar index. When I saw the results, I was a little surprised that they weren’t more serious in that 30 percent depreciation scenario. But then I saw the sentence you had there indicating that the shock did not incorporate any of the potential impact on the U.S. economy through the confidence of business or consumers or through higher risk premiums on private domestic asset prices. So I was wondering if you could give us the benefit of your thinking on that as to what magnitudes we should expect here.

MS. JOHNSON. Unless you happen to have an urn and a few balls that I can select from, I don’t think I’m in any better position than you are to judge that outcome. When we have in some previous Greenbook simulations—or in the June FOMC presentation, for example—added an asset market disruption and volatility as a consequence of a change in the dollar, it is always just very arbitrary on our part. There’s no systematic link that we’ve been able to discover in the data between the exchange rate and these other things. A lot depends on the exogenous shock, if you will, that gives rise to the exchange rate change. So to mimic a world in which people became less confident about U.S. assets, we put in higher risk-premium terms and things that drive the stock market, and we get out some disruptive effects. But the dollar could move as a result of a world in which productivity gains finally started showing up in other countries—

CHAIRMAN GREENSPAN. Or ours unwind.

MS. JOHNSON. Yes. But I'm looking at a scenario that would have a net positive shock to the global economy so that it's not that our incomes in the future are likely to be lower but that foreign incomes appear likely to be higher. Foreign assets look as if they should be valued more highly. The relative differential shows through to cause the dollar to fall, but on balance, it is a more favorable foreign outlook rather than a less favorable U.S. outlook that produces that effect. You'd get a very different story if the dollar were to fall for political reasons that could be driven by safe-haven concerns, which would tend to drive down U.S. long-term interest rates somewhat, as we saw in '97 and '98. Alternatively, the dollar could fall for anti-U.S. political reasons, and presumably people would then be selling U.S. bonds as well as U.S. dollars. So the mix is all over the map. The dollar itself is just a reflection of what that underlying shock might be, as would be the case with stock prices and with the long-term interest rate. We can arbitrarily put those shocks into the model and get out the answers, but basically we feel why bother the model? We could just write down the answers. That's in essence what we'd be doing, so we've shied away from it.

MR. MOSKOW. If we had this sharp drop in the dollar, you point out that it would affect confidence of U.S. business firms and U.S. consumers. How would you see that playing through?

MS. JOHNSON. Well, presumably that would lead to a step-up in the U.S. saving rate. We would get some benefit from a dollar decline. Remember, a drop in the dollar is a very expansionary shock to the U.S. economy. When we run that shock sort of naked, the way we did this time, and ask the model what the outcome would be, the Taylor rule wants monetary tightening. And we still get some more output and some more inflation because it's a very expansionary shock. But if it happens in the context of something like a loss of confidence, these residuals that were just being discussed presumably would go up in other countries, too—ones without all of the attributes of the United States, such as Brazil, Argentina, and Korea.

These kinds of shocks tend to be associated not with expansionary macroeconomic outcomes but with recessionary macroeconomic outcomes because, despite the fact that the exchange rate gets a relative price boost, these other events cause such havoc and disrupt fiscal policy and so forth that there's often monetary tightening to counter the inflationary effects. But also there's stress in the financial markets and stress in investment spending, and fiscal policy gets off track and, all in all, you get a recession movement, not an expansion, despite the exchange rate shock. So out of context, it's just very difficult to put these added features into the equation along with the exchange rate. One could do dozens of these simulations, and I would have no way of attaching probabilities to them, to be honest.

MR. BERNANKE. I think the difference between us and Korea is that they borrow in foreign currencies whereas we borrow in our own currency.

MS. JOHNSON. Right.

MR. BERNANKE. So a depreciation of their currency creates balance sheet effects.

MS. JOHNSON. It has some balance sheet effects that complicate the household sector's problems and the nonfinancial corporate sector's problems, and typically there are some balance sheet effects that threaten the banking system. Now, for sure, we don't think that a depreciation in the dollar would have serious consequences for the U.S. banking system. In June I mentioned that, given the information we had, the balance sheet effects from a dollar depreciation appeared to be abroad rather than at home. Dollar-denominated assets would become less valuable abroad, but balance sheets in the United States would tend to be more or less dollar neutral because the dollar is on both sides. It would be a complicated picture. But the confidence effects and other aspects of the story depend very much on the precipitating shock.

MR. MOSKOW. Thank you.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I have many of the same questions. Let me just raise a couple of issues. The first is on the investment income swing that shows up in the capital account. I don't profess to be anywhere near an expert on this, but I had always thought that those numbers are typically positive because we generally make more money abroad than foreigners make here. Does that swing from time to time, and is this just a normal swing, or is this telling us something significant?

MS. JOHNSON. The holdings abroad need to be divided into two basic categories, one of which is the net foreign direct investment story and the other is the portfolio—that is, stocks and bonds and bank claims. What you've described has characterized the foreign direct investment portfolio. We have, on average, earned higher rates of return on our holdings of foreign direct investments than foreign investors in the United States have earned on theirs. That has been a big source, and will continue to be a big source, of net positive income into the U.S. current account. It is ironic that we've become the world's biggest debtor and nonetheless we've actually been recording, at times, positive income flows. That is because much of the bond portfolio is dollar-denominated. There are very few—some, but not a lot—foreign-currency-denominated bonds issued by U.S. corporations; they are mostly dollar-denominated bonds. And interest rates on those have been quite low. So even though the position has deteriorated—basically, rather severely—from 1995, the net income actually stopped deteriorating and was quite flat for a while, owing to the low interest rates. In principle, if the interest rates were actually zero, one could see that that whole part of the portfolio wouldn't matter at all. So the notion that we earn more on direct investment is still present in the data and in our forecast. But as we apply somewhat higher interest rates to the bond part and the bank deposit part, we finally see the consequences of being a big net debtor starting to overwhelm this direct investment portion of the position.

MS. MINEHAN. I have just one other question. For many countries around the world, a lot of their growth ends up being export oriented and we're the big importer. So there is a kind of codependence between us and the rest of the world as regards the value of the dollar. The numbers get awful, but how does that codependence unwind?

MS. JOHNSON. Well, one of the features in the Greenbook simulation, going back to the prior question, is the model's ability to say that foreign policymakers act in a way that speaks to this codependence. One problem that we face collectively in the global economy is that the low interest rate environment for all concerned does limit the capacity of foreign central banks to stimulate domestic demand as they lose external demand. So zero-bound problems become quite relevant, as we highlighted especially in the paper that we circulated ahead of the June meeting. The most immediate and direct device we have for undoing the codependence is to get domestic demand abroad stronger and to do that through monetary policy stimulation; but that's limited to some degree by zero-bound problems. And when we run these model simulations, we tend to hit the zero bound, particularly in the euro area, say, where the policy rate is sitting at 2 percent right now. And, of course, Japan is already in the vicinity of the zero bound, so there's not a lot of scope for stimulating domestic demand.

If I wanted to, I could tell a happy story. There are plenty of happy stories. We've been through this before—in the 1980s—and we've lived through the past decade. The world hasn't stopped turning; even the financial markets haven't stopped turning. There's a lot of potential in the developing world for capital accumulation, either financed out of the high saving rates of those countries or financed out of foreign direct investment that doesn't keep flowing into the United States but goes to China, to the rest of Asia, and maybe even to Brazil and other Latin American countries. There's a lot of potential in Brazil. There have been investment bank articles that I'm sure some of you have seen about how fifty years from now China, India, and Brazil are going to be the dominant economies in the globe. If that capital accumulation is realized, that's domestic demand in the rest of the world. The market economies of the globe can handle all that; there's no reason to think that it can't lead to a quite benign resolution of the circumstances we're now in. But that's terribly complicated, more by politics, property rights, infrastructure, and those kinds of issues than by anything inherent in this imbalance problem.

MS. MINEHAN. We've raised an issue of very outsized numbers and the potential for financial instability. But there seems little we can do here in this country on the monetary policy side—possibly a lot we could do on the fiscal policy side but not on the monetary policy side.

MS. JOHNSON. The essential monetary policy contribution, it seems to me, is to keep U.S. inflation low and U.S. output as close to potential at a sustainable rate as possible. This is what you would do in any event.

CHAIRMAN GREENSPAN. Not quite. Now, if I believed in the efficacy of intervention, which I do not, it would not surprise me to be sitting here and observing the sequence of events that Dino has described this morning. Dino is talking about reductions in volatility and related increases in stability. We're looking at an extraordinarily stable system in which there is a benign response to 75 basis points—or will be. [Laughter] Well, I'm not prone to avoid making forecasts!

The question that I think arises is whether, on the basis of history as Karen points out, we can get through these periods without crises, as a developing literature around the world suggests. If there were a way in which we could move the dollar's exchange rate down significantly in a manner that had no secondary effects, would we not want to accomplish that? Would we prefer the euro–dollar relationship at this stage to be at 145 instead of 122? The answer is, "Yes, we would." But we don't know how to get there. The general presumption might be that we can get there through intervention, but the experience with interventions suggests otherwise. There are some people here who were at the Fed during the Plaza Accord period. I was not, but I was watching from the outside, and I don't recall a lot of intervention. My recollection was that in February 1985 the dollar and the pound sterling were almost at parity at one point. The situation was like an avalanche waiting to break; and when the G-5 met and released a few statements, the avalanche did break. There wasn't a great deal of intervention, but it appeared to be extraordinarily successful. That struck me in retrospect as sheer luck. I don't recall that the G-5 said anything of great significance.

We have a degree of credibility in the Federal Reserve, but I'm not at all certain that if, for example, the Secretary of the Treasury and a number of us started talking in that direction, we would knock the dollar–euro exchange rate down sharply. I hesitate to think of the consequences. If it were easy to do, I would recommend it. The problem here is that there is a wide consensus that this is the time we want the devaluation of the dollar to happen, not later when the economy may be in a weakened structural situation.

MS. JOHNSON. But as a footnote to the 1980s, that was a time when the rest of the world was growing; it enjoyed a much better macroeconomic performance. Japan was growing strongly. Europe was doing better. The domestic demand contributed from outside the United States was healthier at that point.

CHAIRMAN GREENSPAN. And with respect to the issue that we discussed earlier, the absolute level of our current account deficit was lower.

MS. JOHNSON. Yes.

VICE CHAIRMAN GEITHNER. When Karen did her June paper, I asked her if she was going to recommend Plaza Two—that the paper was just the stalking-horse for recommending Plaza Two. But I think it's hard to conceive of a strategy that we could manage—you weren't suggesting this, but let me just say it—where to deal with the risks in our presumptively unsustainable external position, we would induce a run on our currency and induce a broad-based run on U.S. financial assets.

CHAIRMAN GREENSPAN. You couldn't do it and control it.

VICE CHAIRMAN GEITHNER. Yes. I think the lesson of those various periods is just how hard it is—once the expectation is created that as a matter of policy we're going to try to induce a substantial decline in the value of our currency—to contain it or to slow it and manage it. And yet if we could immaculately induce the rest of the world to revalue against us in some gradual way, we'd do it if we could. That would be rather nice.

CHAIRMAN GREENSPAN. Well, that in a way is what we've been trying to do. We've been trying to do that obviously by persuading the Chinese and others who have been intervening in the foreign exchange market. What I find disturbing about the scenario that Karen has outlined is that we may achieve the adjustment in a wholly inappropriate macroeconomic environment. I'm not saying there's anything we can do or say about it, but I don't think we can just push the issue aside. Who else in the world is going to think about this other than the

Federal Reserve? There's no one else in the American government. On the G-7, there's really no one else but the United States. To the extent that events of this nature go on, they are observed and evaluated but without some notion of whether there are policy relationships involved. I'm just saying that, if we don't do it, I don't know who else will. As I look around the world, there are a lot of very good people, a lot of thoughtful people, but the mechanism through which adjustments would occur is the G-7.

VICE CHAIRMAN GEITHNER. Or the G-10

CHAIRMAN GREENSPAN. Or the G-10. The trouble is that if we go from G-7 to G-10, I'm not sure that's an improvement. So as a matter of course, I would not merely say that there's nothing we can do about it and that we should just forget about trying to do so and go on our merry way. The problem is that no one else is doing anything. The probability of our thinking about it and coming up with and doing something constructive is very low, but it's not zero, and it's probably zero for most of the rest of the world. President Santomero.

MR. SANTOMERO. I'll yield my time; this is more informative.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Just on this point. I think I cannot be accused of going on my merry way on this particular issue. But as a result of the discussion that Karen led last meeting, I'm actually more pessimistic about the demand switching—I believe that's what it's called in the trade—than I was going into that discussion. Now, the first question is the one that you and President Geithner raised: how to get there. How do we start the slide in the exchange rate?

CHAIRMAN GREENSPAN. I think it will take an Immaculate Conception.

MR. GRAMLICH. Right. That's an obvious problem. But the other problem is that we have to get more demand stimulation in the rest of the world. And as Karen just mentioned, the zero-bound issue really gets in the way of that. We talked a little last week about fiscal expansion, and that possibility is always there, but I think demand switching has two real problems. One is how do we get there, and the other is how do we switch demand on in the countries where we have to switch it on. It's not so easy. So, I'm all for talking about this and so forth, but I think it's a very hard problem—a lot harder than I previously thought it was.

CHAIRMAN GREENSPAN. It's extremely hard. But I would say that we are in the best position, with the best resources, to think about it. The probability is that in the end we will come up with nothing worthwhile. But unless we keep thinking about it, I don't think we can do our own job on American monetary policy.

VICE CHAIRMAN GEITHNER. Karen, am I correct in remembering that one of the things your June paper showed is how little an ambitious fiscal consolidation plan buys us in terms of an improvement in the external position?

MS. JOHNSON. That is the case in our model. However, I've been, if anything, a bit skeptical about that. But when you reduce any component—exogenous government spending, exogenous investment, a change in the saving rate—you create an opening in the demand–supply balance that is then going to be filled by something, and you want it filled by exports. That would be the pro-adjustment response.

Our model suggests that, as monetary policy eases in response to flagging demand, we're more likely to get interest-sensitive components of U.S. domestic demand stepping in than to induce a change in the exchange rate and get higher exports. But that is all conditional on two things, one of which is how interest-sensitive that demand is. And if the interest-sensitivity isn't as high as we have it in the model or if those components suffer some of the residual problems of the sort they have suffered lately because of confidence or whatever, maybe U.S. interest-sensitive demand won't come rushing in. That's one possibility. The other is that, as far as the model is concerned, that relationship depends on the model's ability to tell us what the exchange rate is going to do because the induced effect on the exchange rate is how that adjustment works. I always start and stop these conversations by saying that we don't have a good model of the exchange rate and that's why we make all our statements conditional. In order to close models—most models, including ours—we use uncovered interest parity because the model has to have an exchange rate equation. There has to be something that does that, and that's what economic theory says to put in there, so that's what we put in. But uncovered interest parity has never succeeded empirically, ever. So that conclusion rests on these two properties: that we don't really know what the exchange rate response would be and that we don't know if our interest sensitivity is as high as the model says it is.

CHAIRMAN GREENSPAN. That's an important insight about the nature of the adjustment process. The fact that you cannot forecast exchange rates is telling you something good about the flexibility of the adjustment process, which in itself is a useful insight in terms of knowing what to do analytically and from a policy point of view.

MS. JOHNSON. I could tell stories in which that flexibility would all work in the right direction, but I could imagine at least some factors that could go the other way, in the sense that every time the world seems to be going through a period of uncertainty and unsettledness—and a pronounced external adjustment might be such a period—there's a tendency to see capital flow into the United States, not out of it. And that would counteract the desired adjustment.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Just to your point on the exchange rate and why we may need to think about this. It strikes me that, because of external demand and our own situation, we have a more accommodative policy than we normally might because of trying to keep domestic demand up, and the result is that it also keeps our demand for imports very high. That means that we as a country accumulate more debt, and as we look down the road, we continue to see this already very large current account deficit growing further. Therefore, we have a greater likelihood of a crisis later as we try to maintain our own domestic demand, given that the rest of the world isn't helping us along. It may be time to think, as you are saying here, about the external side in terms of the exchange rate. We can't predict the future; I recognize that. But all the indications are that this problem is building and that the likelihood of this future crisis is building. Because of our need to maintain strong domestic demand, we continue to put liquidity out there, and the world continues to accumulate our debt. This future problem is building in part because of our policy and the fact that we are dealing with one policy instrument right now.

MS. JOHNSON. But I would just reiterate what Governor Gramlich said a minute ago. If all that happens is that we decide that we're going to use monetary policy to limit U.S. domestic demand, that by itself is not going to be sufficient to produce a good result.

MR. HOENIG. That's why I'm saying, with regard to the Chairman's point, that we may have to look at the exchange rate side or at least think about it. I believe it is perhaps becoming more critical that we do so.

CHAIRMAN GREENSPAN. Our dialogue with the staff regarding the economic outlook was a little lengthier than usual, but I think it was a very important discussion. It does impose some time constraints on us going forward, however; so I would request that we try to keep our comments slightly less lengthy—unless, obviously, one has important things to say! [Laughter] With that, who would like to start off? President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Maybe I should speak faster! In this round, the reports from our Seventh District contacts were unusually varied. Many were quite upbeat; others were reminiscent of last year, when uncertainty over the strength of the expansion caused firms to delay investment and hiring. Hence, while I think we've moved out of the soft patch, we do not yet have a clear sense of how robust conditions are going to be. On the upside, some industries continue to do very well. These include printing, magazine advertising, paper packaging, and a wide variety of heavy machinery producers. Indeed, industry reps at this month's International Manufacturing Technology Show in Chicago said that business was as good as it has been since 1998. In contrast, producers of consumer goods were more subdued. As you know, automakers are now less bullish and are increasingly concerned about their inventories. They plan to offer even higher incentives and to be very conservative about production. Reports on consumer spending were also mixed.

Reports on hiring reflected the varied levels of optimism across sectors. Many manufacturers outside the automobile sector are adding hourly workers to their payrolls. But in line with Dave Stockton's comments, we're once again hearing from our directors and other contacts that some businesses are uncertain enough about the strength of demand that they're reluctant to add workers. The large temporary-help firms we spoke with said that year-over-year growth in billable hours had eased slightly, but they attributed at least part of the softness to transitory factors such as the hurricanes. Furthermore, one of them reported that wage gains had moved a bit higher across the board.

Nonetheless, the inflation outlook remains subdued. Of course, some input costs are still quite high. In response, some of our contacts are changing their purchasing strategies. Many users of steel, for example, think prices will come down substantially, so they're not building inventories at the current high prices. And many are switching from long-term fixed-priced contracts to ones that guarantee future supply but with the cost linked to the price prevailing at the time of delivery. Downstream, most firms have been unable to pass higher costs on to consumers.

Turning to the national outlook, last time the two big questions facing us were whether inflation had picked up and whether the soft patch was temporary. We now feel better about inflation, and as I noted at the outset, we seem to have emerged from the soft patch, but we don't have a clear picture of how big the improvement will be. Job growth has not yet shown the kinds of gains that one would expect if growth were running above potential, and I am concerned that during the intermeeting period we heard renewed talk about increased uncertainty making businesses hesitant to hire and to spend. There's a chance that this risk aversion will become embedded and take us into a more extended period of subpar growth. But there are reasons to be optimistic. Financial markets are not pricing in heightened risk, productivity trends and accommodative monetary policy are supporting growth, and quite a few of my contacts are very upbeat about their businesses.

On balance, we think that the mixed signals mean that the economy is growing only modestly faster than potential. Our forecast is for the output gap to remain sizable for some time and for inflation to stay under control. The question going forward is, How quickly should we remove the current high degree of policy accommodation? We still have a long way to go before the funds rate reaches neutral, so I don't see any reason to deviate at this meeting from our plan to remove policy accommodation at a measured pace. But if we see signs of persistent sluggishness in the economy, then we might want to pause at some time in the future.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. It's hard to remember an intermeeting period when less happened—where economic developments were more predictable and more stable—than this one. So I want to concentrate on a few pieces of information that I picked up during this period.

My Wal-Mart contact focused on the weak August sales in their stores. He conducted a survey of all Wal-Mart store managers to determine when schools in their communities opened. It turns out that a lot of schools open on a schedule that is tied to Labor Day and many do not. By comparing sales at stores in the two groups, he determined that the late Labor Day had a fair amount to do with the slow August sales that Wal-Mart reported. He estimated that the total impact was about 90 basis points; that is, August sales relative to August last year were reduced by almost 1 percentage point as a consequence of this pattern of school openings and the late Labor Day. I thought that was rather interesting, and of course, it may mean that September sales will be somewhat stronger.

The other comment that I thought was interesting—and this is not totally new—has to do with the transportation system. My trucking industry contact at J.B. Hunt said that his firm is not investing in any new capacity. Actually, the number of trucks is flat to down slightly. Margins are not particularly good, so they're not investing. A major difficulty is getting drivers. Nationally, as we know, a lot of trucking companies have gone out of business, and rail capacity is not expanding either. So he thought we might end up with some strains in the transportation of goods. Obviously, we know that the transportation of passengers is getting quite messed up as well because of all the airline bankruptcies. Those were the only two comments that I wanted to offer. My contacts said that things are rolling along about as anticipated and that business looks generally good. Thank you.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. The economy in the Eleventh District continues to expand at a modest, or maybe even a measured, pace. At our Board of Directors meeting a little over a week ago, one of our directors summarized it best by saying that the economy is going nicely—not great, but nicely. Her theme was echoed by many other directors and by members of the Advisory Council on Small Business and Agriculture. I also met with a number of CEOs for breakfast that same week, and what was most interesting to me was that none of them had much to say about the economy. It was neither so strong nor so weak that it deserved much in the way of comment. What they were almost obsessed about, though, were the rising costs of health care to their businesses, with little hope for improvement, and related issues of tort reform.

Even though most of my contacts are telling me that the economy is doing okay, I sense a certain reluctance on the part of business people to make long-term economic commitments—a point others have mentioned already this morning. One of our Houston directors, who is in the petrochemicals business, has been raising prices for months. His company has been running close to full capacity in several product lines. He raised the question of whether he should be investing in new plants, given that his current plants are running full out. For a variety of reasons, his answer was "absolutely not." One of our agricultural advisory council members made a similar point regarding cattle ranches when he said, "Just like in chemicals, no one wants to build new plants." It's my view that these remarks reflect an underlying caution—call it lack of business confidence, if you will—that may act as a brake on economic growth going forward. In the case of large publicly traded companies, we can blame some of this caution on Sarbanes–Oxley. But this reduced appetite for risk-taking and long-term investment has spilled over to smaller, more entrepreneurial, privately held businesses as well.

Having said all this, I should point out that the Texas economy has continued to improve throughout 2004. Job growth has picked up steadily, and the gains are fairly widespread across most industries. After three years of massive declines in high-tech employment, reasonably steady gains have taken place thus far in 2004. One of our advisory council members from Austin's high-tech sector noted that Austin is finally off the bottom. It is a "feeling better" economy but not yet a "feeling good" economy.

The national economy seems to reflect the same pattern of slow, modest growth and decelerating inflation that has emerged in the Dallas District in recent months. I have no reason to differ in any significant way from the staff's GDP outlook. I think we'd all be pleased to have the baseline scenario unfold. Average real GDP growth of just under 4 percent in the fourth and fifth years of expansion is pretty good.

If the staff's inflation outlook for 2005 and 2006 is correct, or even just in the right ballpark, the U.S. economy will remain in the zone of price stability in the near future. As I look at the staff's inflation projections under the alternative simulations, I can't help but notice that all of the inflation projections are for core PCE to come in under 2 percent, with many of the projections centered closer to 1 percent. It was not that long ago that this Committee was agonizing over the threat of deflation when our inflation measures were pointing to core inflation around 1 percent. I'm not recommending that we agonize again, but the similarities are striking. As I looked at the table on page 2 of the Greenbook supplement, I was struck by the three-month change in the annualized rate of various measures of inflation for the period ending in August. CPI inflation is running at 1.3 percent, core CPI at 1 percent, PCE inflation at 0.9 percent, core PCE at 0.7 percent, finished goods PPI inflation at minus 1.1 percent, and core PPI for finished goods at 0.5 percent. Were this pattern to continue, the Committee would be facing an inflation pattern not very dissimilar from the one we were looking at in the spring of 2003.

For many months now, the Committee has been saying that its policy stance is accommodative. I won't dispute that conclusion; I've been saying it myself. If we're measuring the degree of how accommodative we are by the real federal funds rate, then it's critical to get the right measure of anticipated inflation into the equation. If the staff's inflation projections are correct, then policy is much less accommodative than it would be if we assume inflation expectations are well anchored in the 2½ to 3 percent range as in the University of Michigan survey. If the last few months of inflation data reflect a return to the inflation patterns and trends of the last few years, there may be less policy accommodation to be removed than the Committee has been assuming, and there may soon be room for a pause in the measured pace of policy changes. I think our current policy of measured withdrawal of policy accommodation is correct for now. But with inflation low again and falling again, I have to remind myself why I think so. The reason seems to have changed from "to contain inflation" to "because the economy is strong enough to tolerate it." In other words made famous recently, we may be doing it because we can. After today, we may want to reassess that.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. The New England economy is in a growth mode, but the pace of that growth is a bit subdued. Employment levels for the region as a whole are now above those of a year ago. It's the first time in the last two or three years that that has been the case. Most industries and states have added jobs over the last year, and we have even had some positive recent reports on manufacturing employment. We think that reflects the strong growth that has occurred in merchandise exports—probably in response to the decline in the dollar, however small it has been, that has already occurred. The tourism industry appears to have done fairly well this summer, though cool weather affected both the Maine coastal region and Cape Cod. Finally, commercial real estate markets remain flat in terms of vacancy and rental rates. This hasn't affected prices on premier office buildings, however, which remain in the stratosphere, according to one contact.

Discussions with our Bank's board of directors and a group of the region's small businesses revealed considerable variation. Most of our directors, whether they were bankers or industrialists, focused on the recent slowdown with concern. Their collective level of caution is higher now than earlier. The smaller businesses on our advisory council, however, mostly had more business than they could handle and complained of shortages of technical staff, high benefit costs, and rising prices for energy, steel, rare metals and alloys, plastics, and paper products. Similarly, discussions with temporary-help firms suggest a good deal of regional strength, but readings of business confidence overall have been lumpy. Business confidence is better than last year but reflects a great deal of uncertainty and some concerns about rising costs. Clearly, some businesses and industries are doing quite well, especially smaller firms and those with military and export markets; others are more cautious and defensive in outlook. And uncertainty about geopolitical events, terrorism, and the upcoming election continues to be a factor.

Turning to the nation, incoming data have been mixed as well. We in Boston have had for some time a take on overall growth that is a little less optimistic than the Greenbook, and we now find that our two forecasts are just about identical. So I can't find much to object to. Both forecasts depend greatly on a rate of employment growth that remains, at this point, more a hope than a reality. And we see this as an important source of downside risk.

As I think about policy at this point, I find myself in a bit of an internal argument. On the one hand, as Part 2 of the Greenbook makes very clear—as did Dave at the beginning of his comments—the expansion has regained some vigor. There is continued labor market slack, to be sure, but it's also not clear where things such as the labor force participation rate and the employment–population ratio ought to settle after the employment boom years of the late '90s. Productivity growth continues to be relatively strong, and industrial production has picked up except for high-tech goods. And in some areas such as truck and rail shipping, as well as primary processing industries, capacity is in short supply. Consumers seem ready to spend on autos and houses, and they're willing to take saving rates to record lows in the wake of substantial appreciation in housing prices. Clearly, this could turn around and is a potential source of downside risk.

Businesses have probably added enough to inventories to hold them for a while. They are likely to purchase non-high-tech equipment at a faster pace over the rest of the year to get in under the wire of the investment tax credit change of next year, and that will borrow some strength from 2005. But overall the underlying fundamentals don't suggest a complete washout in business spending in 2005—not by a long shot. So the economy seems poised to grow over the coming quarters at 3½ percent or better according to almost all forecasts, with unemployment in the low to mid-5s and negligible inflation. Not a bad outcome at all.

Clearly, there are some challenges. I think the fiscal deficit poses a problem, and we've talked about the external deficit as well. But in this context, I ask myself, Is this an economy that still needs negative real fed funds rates as a stimulus? Or do such rates have the potential to cause real problems for both inflation and financial stability? The answer to the latter question may be "not any time soon," but we may now have an opportunity to avoid those problems at little cost. So that's one side of my internal argument. The other side takes into account how far we are in terms of economic growth from where we could, and maybe should, be. Every forecast I know of, the Greenbook included, has significantly written down growth for the last half of this year and for 2005. Estimates of excess capacity, whether that is measured in output or by employment, have been raised a bit over the summer. And now the Greenbook expects that such gaps will not close until later in the forecast time period—mid-2006—with less tightening than that expected by the markets.

Inflation has fallen off a bit in the first half and seems likely to stay low absent a major acceleration in oil prices, which likely would have more of an effect on growth than inflation. With the fiscal stimulus from the partial-expensing tax provisions removed next year and with profit growth moderating, the forecast seems to hinge primarily on levels of employment growth that we just haven't seen yet.

I usually conclude this part of my internal argument with this question: Aside from the fact that we've just about told the markets that we're going to increase rates by 25 basis points today, why is that necessary? In the end, I find myself continuing to come down on the side of removing policy accommodation slowly, at least for now. I don't think negative real rates are consistent with an economy that is growing at the solid pace ours is. Real funds rates are marginally negative, depending on how one calculates them, and will be less so, or even slightly positive, after a 25 basis point move.

As I said at the August meeting, I really don't know where neutral is, and I think it would be good to have a discussion about this whole concept of neutral at some point. But to quote President Santomero from the last meeting, it is probably above where we are. I don't think we should go to neutral soon, but getting out of negative territory has appeal to me. Markets expect a change today, and halting now could make things seem worse than they are. I must say, though, that if the data don't start to get better soon, especially as they relate to employment, I think we should take the pause that the Greenbook anticipates.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. Thank you, Mr. Chairman. The tone of the reports that I'm getting from my business contacts in the Fourth District is positive, but it's hardly reminiscent of the reports of robust growth that I was hearing earlier this year. Still, both order books and profits are reported to be fairly strong. Business leaders across a broad array of industries tell me that they expect to see steady sales growth through the end of 2004.

Despite these positive reports, business confidence remains less upbeat than order books and profits would appear to warrant. My contacts still say that, if the economy continues to grow and stays on its present course, they will persevere in their search for more productivity improvements rather than hire additional workers, at least for the foreseeable future. And this is perhaps still the most remarkable aspect of this expansion—the ability of businesses to continue to squeeze out more production with the same number of workers. It can't persist, of course, but I'm beginning to wonder how long I'm going to keep saying that.

At a recent joint meeting of our boards from the three offices in the District, the directors made several observations about energy prices. Although most directors expect energy prices to retreat somewhat from their current high levels, they are basing their future business plans on energy prices that they expect will be higher than those of a year or two ago. In response to energy prices, though, several of our directors were commenting that they are adjusting—or at least trying through innovation to adjust—the composition of the products that they're producing. They're using innovations to develop products that are less energy-dependent.

The Fourth District economy, like the nation's, seems to have a lot going for it except considerable employment growth. The incoming data, though, suggest to me that the risks we face remain balanced and may actually have narrowed a bit in their scope since the summer. By that I mean that the prospects for either a resumption of the exceptionally strong business expansion that we saw in the winter and spring or a slipping back to a tractionless recovery—both of which seemed possible in the summer—look considerably more remote to me this time. Similarly, the extreme inflation or disinflation outcomes seem to me less likely as well. In summary, I believe the economy is expanding at a sustainable rate, and I think we should continue with our plan to gradually remove our policy accommodation. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. Thank you, Mr. Chairman. Economic growth in the Fifth District softened further in recent weeks, but we don't see any indications that the expansion is off track. Manufacturing shipments and orders continue to expand, although manufacturing employment appears to be flat or declining in our District. Retail activity in our region has been soft lately, consistent with the national figures. Outside the retail service sector, activity has been flat overall since August, but our District continues to outpace the nation in residential construction. We're hearing complaints about the cost of construction materials, and the scarcity of heavy-equipment operators appears to be limiting construction work in some areas. More broadly, while our directors and other contacts report expanding economic activity across a variety of sectors, there is a lingering sense of unease about the pace of this recovery. Several contacts say that firms are reluctant to add workers, and many attribute this to concerns about the continuation of the recovery.

Turning to the national economy, in spite of the encouraging net job growth in August and the upward revisions to the data for the two previous months, the September Greenbook has written down expected job growth this year from what was anticipated in August. The end-of-year output gap is correspondingly a couple of tenths wider than in the prior projection, and there's a commensurate reduction in the expected path for core consumer prices both this year and next. I think it's reasonable to project that the labor market will gradually improve and that the output gap will close by the end of 2006, helped along by a less aggressive rise in the funds rate as built into the Greenbook forecast. That said, though, I think that the recent data have clouded the picture enough to suggest substantial downside risk in the outlook. Evidently we're not returning just yet to the growth rates that we had been anticipating prior to the recent soft patch. Thus, some markdown in the expected funds rate path seems warranted.

Much of the financial market nervousness about inflation evident earlier in the year seems to have receded. Nevertheless, financial markets still expect a funds rate about 75 basis points higher by the end of 2006 than does the Greenbook. That expectation continues to keep long-term interest rates higher than they otherwise would be. The Greenbook anticipates that long rates will come down as we follow through and raise the funds rate on the expected path. The result is something of a central banker's dream—a rising policy rate accompanied by falling long rates. However, should the economy truly need the greater stimulus assumed in the Greenbook, we should be alert to other possibilities in the period ahead. Markets might again get more nervous about inflation, and long rates might rise rather than fall as we indicate a less aggressive rate of increase in the funds rate. Clearly, that would be counterproductive.

Accordingly, I think we should be cautious about sending such signals. We could well find that our credibility for low inflation is sufficiently secure that signaling our intention to move the funds rate up less aggressively succeeds in lowering long rates and stimulating the economy. On the other hand, we might be unpleasantly surprised.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. I'm going to take your admonition seriously and say about the District economy that it continues to track the national economy quite closely, as it has throughout this recovery. I'm tempted to let it go at that, except there was a development yesterday that went largely unnoticed and is a cause for celebration. I'm sure you noticed it; the Minnesota Twins clinched the Central Division for the third consecutive year—demonstrating once again that a small market team can succeed. [Laughter]

When I think about the national economy, it seems to me that the evolution of the forecast this year has not been all bad. That's not a ringing endorsement, I understand. We're certainly looking at somewhat slower growth than I had anticipated earlier, but we're also looking at a bit lower inflation than I had expected. Beyond that, it seems to me that, if we think about broad trends rather than meeting-to-meeting fluctuations in the data, changes in the forecast, and clouds that appear from time to time and then dissipate, we see the following: Growth last year was 4½ percent in real terms and is likely to be something like 4 percent this year. The unemployment rate has declined—perhaps not quite as much as measured, but it has declined. Inflation is low—and it's certainly low in the historical context of most of the postwar period—and it seems likely to stay there. Moreover, I think the outlook is positive, and I say this for essentially two reasons. One is productivity, and the other is history. Although history obviously doesn't repeat itself precisely, I think there is a message in the long expansions of the 1980s and the 1990s, which is that the economy is fundamentally resilient and fundamentally flexible. Expansions, once established, don't terminate quickly. And from that perspective, I think we're in good shape overall.

On the employment situation, the staff probably recalls that I've been skeptical about the employment forecast for some time. Now I find myself skeptical about the explanation pointing to a reluctance to hire. I guess I'm an outlier in this regard, but I must say that for quite some time no business person I've talked to has expressed anything special about his or her willingness or unwillingness to hire. My sense of the situation is that they're making the same kinds of decisions they always make with regard to these kinds of issues. Now, if we mean by "reluctance to hire" that we can't explain the slow improvement in employment, I agree with that. But I really don't know that there's anything special there.

Finally, with regard to our earlier discussion on exchange rates, I certainly don't object to thinking about how that might play out and what our role might be. But as I think Karen observed, it doesn't have to play out in a disorderly fashion. And it seems to me that, if we want to avoid the risk that movements in exchange rates could turn disorderly, we're going to have to adhere to sound policies in any event.

CHAIRMAN GREENSPAN. I gather your bottom line is to recommend to those of us who root for the Baltimore Orioles that we move to St. Paul! [Laughter]

MR. STERN. I'm not sure. That move may be necessary but not sufficient. [Laughter]

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. Economic activity in the Third District continues to expand. Our region did not experience the June lull seen in other parts of the country, but in the last month we've seen some easing in the pace of growth—perhaps a delayed lull rather than a new trend. Manufacturing is a case in point; our business outlook survey index of general activity fell to 13.4 in September from a robust 28.5 in August. In contrast, the index of new orders strengthened in September, and shipments remained very high. It's fairly unusual for us to get disparate readings across the general activity, orders, and shipments indexes.

I will note that the comments we received from respondents were generally positive and more consistent with the readings on new orders and shipments. In a special question this month, we asked how firms' investment spending had been affected by the special tax depreciation allowance. About a quarter of our firms said that the allowance led them to increase their spending on capital equipment this year, and it appears that these firms have smoothed out the spending over the year. Consistent with the continued strength in new orders, half of our firms report that they expect to spend more on capital equipment in 2005 than they did last year, and a quarter of them expect to spend significantly more.

Each of the three states in our region experienced positive job growth in the first two months of the third quarter. Employment growth in the third quarter has slowed from the second quarter but is about the average of the first two quarters combined. After five consecutive quarters of decline, the three-state unemployment rate edged up to 5.2 percent on average in July and August. Despite the increase, the statewide unemployment rates in each of our three states remained below the national average, and we continue to receive reports that some firms are having difficulty finding qualified workers. I thought that's where President Stern was going on the hiring story because I keep hearing that story in the Philadelphia District.

Retail sales of general merchandise have been rising in the District, although year-to-year gains have eased from earlier in the year. Some of the year-to-year weakness in August was to be expected because last August's sales were significantly buoyed by the tax rebate checks that were received around that time. Commercial real estate markets in the region remain soft, but we're beginning to see a slight improvement in nonresidential construction. This is concentrated mainly in warehouse construction, with office construction still quite flat. Residential activity is now beginning to moderate from the very strong pace earlier this year, but home sales remain strong, and house appreciation continues at a high rate in our three areas. We continue to get readings of rising prices in our region, with firms expressing concerns about rising fuel prices and mental and other health care costs. The outlook among the contacts in the region's business community is for continued improvement this year, with modest gains anticipated. Our staff's leading indexes of economic activity are all signaling output growth in the three states in the region over the next three quarters and stronger employment growth as well.

Turning to the nation, incoming data suggest that the economy is emerging from the soft patch. Consumer spending has picked up, although it is not growing as strongly as it was earlier this year, as several people have noted. Manufacturing activity has rebounded, and business investment continues to expand at a good pace. Payroll employment gains improved in August after two months of weak reports.

Despite oil prices hitting $50 a barrel in mid-August, inflation has eased somewhat from levels seen earlier this year, and long-term inflation expectations remain steady. The economic fundamentals continue to suggest that inflation will remain in check. However, I am not as sanguine about the inflation outlook as the Greenbook. The Greenbook has GDP growth above potential for the next two years. At the end of that period, the output gap is eliminated, yet monetary policy remains accommodative, with the fed funds rate below neutral. It's difficult for me to believe that the inflation picture could be as favorable as the Greenbook suggests unless the fed funds rate is at or above neutral at that point.

On balance, the data suggest to us that growth for the year will likely be 3½ to 4 percent, in line with what President Stern indicated. In my view, this is a reasonably good showing, although I must admit it's about 1 percentage point weaker than we had forecast at the beginning of the year. At this point, I believe the FOMC should remain on the course of continuing to remove policy accommodation at a measured pace. The real fed funds rate will remain negative even if we move ¼ percentage point today; thus, monetary policy will remain expansionary and will help ensure the sustainability of the recovery despite higher oil prices and diminishing fiscal stimulus. Finally, I see no reason to alter our risk language at this time. I think it gives us the necessary room to deviate from the measured pace in either direction, if that proves to be necessary. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Shall we break for coffee?

[Coffee break]

CHAIRMAN GREENSPAN. President Yellen.

MS. YELLEN. Thank you, Mr. Chairman. Since our last meeting, economic activity in the Twelfth District has continued to expand at a solid pace but more slowly than earlier in the year. In most of the District, housing markets remain vigorous, but there have been scattered signs of cooling in some areas. High volumes of international trade have kept many seaports operating at capacity and have overburdened parts of the warehousing and distribution chain. So far, however, bottlenecks have been relatively minor. District job gains remain modest and well off the pace of earlier in the year. Looking forward, our contacts report that they expect to increase hiring in coming months to meet sales and output levels. Many comment, however, on the difficulty of finding workers with the requisite skills and experience. Relatively unskilled labor, in contrast, is perceived to be readily available.

Turning to the national economy, recent data suggest that the sharp slowing in activity in June was short-lived. The bounceback in consumer spending, including auto sales, is encouraging, and the drop in oil prices from recent highs should also help. While all of this is good news, we still haven't seen real strength in job growth, and it's not yet clear whether output growth will return to the robust rates of last year or something much closer to the growth rate of potential. These are key issues because of the slack remaining in labor and product markets. In this regard, the Greenbook presents a rather sober view of the economic outlook, despite its assumption of persistently low real interest rates.

I'm in sympathy with the Greenbook's view. First, while the oil shock almost certainly had something to do with the recent weakness in the economy, I have yet to be convinced that its effects were particularly large. Therefore, we might not get a big boost to activity from its dissipation. Second, it seems likely that partial expensing is providing noticeable stimulus to equipment investment this year, which means that the underlying impetus in the recovery is not as strong as many think. Finally, I remain concerned about the potential for weakness in consumer spending, which could restrain growth even more than the Greenbook envisions. In spite of only modest income growth, consumer spending provided critical support for aggregate demand during the recession and afterward, and the saving rate remains at an extremely low level. With interest rates rising, households may seek to get their finances in order and bring the saving rate up to more normal levels. An alternative simulation in the Greenbook illustrates that this could be a potent factor in restraining growth over the next couple of years. In addition, mortgage refinancings have remained low, and the associated loss of cash flow to households could undermine spending for a time.

Turning to inflation, the data for July and August have been very favorable, especially following the May and June data, which also showed modest increases in core consumer prices. This development strongly suggests that the run-up in inflation last winter reflected temporary factors.

Overall, it’s a bit of a mystery why this expansion has not been marked by faster average growth together with a larger reduction in the amount of slack, given persistently easy financial conditions, including the low levels of real interest rates, as well as the decline in the dollar and the increase in equity prices over the past year or so. But, of course, continuing caution in the wake of September 11, the wars in the Middle East, and the corporate governance scandals are reasonable candidates for an explanation. The continuation of this pattern suggests that the equilibrium real federal funds rate remains quite depressed relative to its historical average, so monetary policy must remain accommodative for the foreseeable future. A pause in the process of raising the funds rate is, thus, likely to become appropriate in the near future, especially if inflation remains well behaved as expected. At the present time, however, the real funds rate is so low that a modest tightening at this meeting seems justified.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. With the exception of the deterioration in the external imbalance, our view of the outlook has not changed significantly since the last meeting. The inflation news seems better. The growth news seems somewhat reassuring but not exciting. There do not appear to us to be any compelling signs at this stage of a deeper and more protracted deceleration in growth that might raise concern about the sustainability of the expansion.

Relative to the tone around the room, I'd put myself at a slightly more optimistic point on the continuum. On the expectation that we will continue to move monetary policy toward a more neutral stance at a pace that matches present market expectations, we expect the economy to grow at the pretty solid rate of around 4 percent in real terms for the balance of this year and at a pace of just over 3½ percent in '05 and '06. And we see core PCE staying close to a range of 1 to 1½ percent during that period.

The fundamentals of the staff forecast remain as they have been. There is reasonably steady improvement in the labor market, with healthy growth in compensation supporting consumer confidence and consumption. Productivity growth reverts only gradually to the still-impressive average of the '90s surge. Global demand growth remains quite broad-based—at close to potential—though not strong enough to help exports provide a positive contribution to U.S. growth. With strong balance sheets, enterprises commit more resources to investment and to employment growth and compensation. Unit labor costs accelerate modestly, and firms absorb some of that increase with lower margins, as competitive pressures contain pricing power. We see the probability of a higher or lower trajectory to this outlook of 3½ to 4 percent real growth and 1½ to 2 percent on the core PCE as roughly balanced for both growth and inflation, though perhaps we should be uncomfortable on how moderate and benign this outlook looks.

This leaves us with slightly lower growth than the Greenbook and slightly higher inflation, but those differences are not particularly large. The main differences in our views involve the path of monetary policy and its consequences. The Board's staff sees a considerably more gradual move upward in the fed funds rate, with the consequence that the real fed funds rate stays low relative to most measures of neutral or equilibrium for a longer time, without inducing much in terms of a surge in growth above potential or in terms of accelerating inflation. In this sense, Janet raises the right question. I think she has the right answer.

To us the greatest sources of uncertainty involve the issues of whether households decide to save more of their income, whether enterprises show less tentativeness in spending, and whether the process of arresting and reversing the deterioration in our external imbalance will be traumatic or benign. Higher household saving, of course, would be a rational response to a number of forces, including an increase in debt with interest rates rising, the prospects of lower future returns on housing, the expectation that individuals will bear more of the burden of rising health care costs and more of the risk in accumulating a viable pension benefit going forward, and the prospects of higher taxes over the medium term.

We don't have a good explanation for the degree of tentativeness among U.S. businesses that remains. Perhaps it will fade. Businesses nationally are showing somewhat less confidence in the strength and sustainability of this expansion than we seem to think is justified. The virtue in this, of course, is that they've gotten themselves less overextended. Our Empire survey, for what it's worth, shows a significant recovery in September in sentiment about present and prospective business conditions and almost every other indicator that we asked our survey respondents about. Hopefully this portends good things for the nation.

The deterioration in our forecast for the external imbalance puts us in very uncomfortable territory, more vulnerable to a shock to confidence. The fact that the dollar has been broadly stable and long-term rates have fallen in the context of the large upward revision to the expected path of the current account deficit may suggest that the risks in this area have diminished, but I suspect that is not the case. And just because a problem has no apparent solution does not mean it's not a problem. [Laughter]

I think we should be quite comfortable with the path of the fed funds rate now priced into the markets; and we should be pleased with how responsive the slope of that path has been to changes in the data. My view is that we should seek to leave that path unchanged in our signal today. We don't see evidence of upside risks at this point that would justify inducing a steeper path. And absent a major change in our confidence about the strength of future demand, I think we should be careful not to induce expectations of a more gradual tightening until we have established a more definitively positive real fed funds rate and have moved closer to the range that defines neutrality. Thank you.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, on the national outlook, our view is similar to the Greenbook's in that we think the expansion has regained some of its traction and will continue as we move forward. Discussions with business contacts throughout our District tend to support this notion as well. For example, most retailers that we've contacted in the last few weeks reported that sales have improved in August over earlier in the summer. In addition, the chair of our board, whose firm is in the manufacturing area on a worldwide basis, reported to us just last week that capital spending budgets finally seem to have been, to use his word, "unleashed." Another director noted that low interest rates and available capital have enabled firms to find capital for acquisition and expansion fairly readily. In our most recent survey of all thirty of our head office and branch directors, about two-thirds of those who expressed an opinion about the next six months—and that was most of them—thought conditions would improve, while about a third thought the economy would just, in their words, "muddle along." Finally, District hirings continue to exceed layoffs and by a fair margin now. The ratio of announced planned hirings to planned layoffs was 2½ to 1 in the third quarter, greatly surpassing the previous high of 1¼ to 1 earlier in the year.

Based on recent evidence like this and on forecasts by our staff, I believe the most likely outcome is continued good growth in the 3½ to 4 percent range, as suggested by others. The uncertainty seems to center on whether hiring will pick up, and I agree that the most likely outcome is that it will strengthen as we move through the remainder of this year and into next year. On the inflation outlook, it appears that the Committee and others were correct in that the spring increases were temporary and price inflation has settled back to more-modest levels. In that environment, my judgment is that what I would describe as our careful, systematic movement toward a more neutral fed funds rate is serving us well. Thank you.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Like Bill Poole, in searching for words that describe developments since our last meeting I kept coming back to "ho-hum." We've had some mixed readings, as is almost always the case, but no really big positive or negative surprises. And maybe, just maybe, we should allow ourselves to be pleased with that. I'm generally comfortable with the most likely path and composition of output and spending laid out in the Greenbook. If we get 3½ to 4 percent growth over the next several quarters, we should continue to make gradual progress on pushing the unemployment rate lower, and those sectors where the recovery has lagged should show improvement.

I also would not quibble with the conclusion that recent inflation data suggest no immediate threat of a troublesome run-up in broad price indexes. While I don't want to do anything to reinforce the label that Al Broaddus gave me at his farewell lunch as the remaining "hawk" in the group, I would point out that some mainstream outside inflation forecasts still have a decidedly upward tilt. When it comes time to choose the words for our statement today, I hope we will resist the option of using language that gives too much emphasis too quickly to the last couple of months of better inflation data.

Perhaps the most interesting dimension to our most recent economic data and our projections for coming quarters is in the area of employment and the labor markets. We spent a good bit of time in preparation for this meeting thinking through some of the same possibilities that are addressed in the Greenbook's "less room to grow" alternative scenario. My labor economists concluded that, if the recent decline we've seen in the labor force participation rate is permanent—and making certain other assumptions about population growth and immigration—it seems entirely possible that employment growth in the range of only 100,000 per month, on average, would be sufficient to maintain the unemployment rate at its current level. We've done better than that recently and, hence, the continued decline in the unemployment rate. This job growth is far below the heady claim of the Council of Economic Advisers now on everyone's mind that the tax cuts would create 300,000 new jobs per month. It is also far below the job growth incorporated in the Greenbook's baseline projection for 2005. I make these points only to suggest that, as is the case with many of the other variables with which we work, there are probably sizable error bands around our estimates of future job growth. And those estimates could have important implications for the notions of slack, the room our economy has to grow, and ultimately price pressures.

Developments in our region don't shed much light on policy issues today. My director from the corporate executive office of UPS in Atlanta, their chief financial officer, characterized the growth in their business as relatively solid though not quite as strong as earlier in the year. And members of the small business advisory group that I met with last week reported some of the same spottiness and uneasiness that has shown through in other sources of information. Reports from our contacts note that, while the effects of the three hurricanes that hit our area were severe in the affected areas and will likely show through in some of the state level data, the economic disruptions are expected to be short-lived. Higher insurance deductibles and adequate flood coverage may have a negative impact on consumer spending in the short run, but we know from past experience that reconstruction outlays will probably make up for the temporary slowdown. Damage to agricultural areas may take a while longer to mend, and fortunately, this is a traditionally slow time of the year for tourism in Florida.

Looking ahead to policy considerations, as we almost all have come to do, I think recent developments have met the hurdle for staying on the policy path embraced at our last meeting. Assuming things continue to unfold in roughly the manner described in the Greenbook forecast, I hope we will stay on the path of gradually removing more of the policy accommodation. I think we should give considerable weight to the possibility of unintended consequences and distortions in resource allocation from policy stimulation that remains in place for an extended period of time. Should we at some point find that the economy has less room to grow than we thought and inflationary pressures begin to build, in my view we will be in a better position if we have gotten to a more neutral policy setting. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I agree with what seems to be the general assessment around the room that the data since our last meeting have confirmed our expectation that the soft spot in the economy wasn't that soft or prolonged and that the economy is on a fairly reasonable track. But I think we all have noted that recent information, including the anecdotes, has also suggested that underlying demands and the path for the economy going forward are not as strong as expected. This latter observation extends a string of downward revisions to actual and projected growth over the year. These revisions reflect the fact that, although economic growth has been good this year, it is considerably less than one might have anticipated from the unusual degree of fiscal and monetary stimulus in place.

The rise in oil and energy prices must be an important part of the story, but the extent of the shortfall this year seems to be too much to ascribe to energy prices. And the fact that inflation as well as output has been coming in below expectations since June suggests that whatever factors are holding back the economy of late should be viewed primarily as having the characteristics of a demand shock. For the most part, the unexplained shortfall relative to model forecasts so far seems to be in business investment spending, and we've cited "business caution" to explain it. Like President Stern in his reference to "reluctance to hire," I think this is just another way of labeling our ignorance. Perhaps businesses have been held back by heightened terrorism or other geopolitical uncertainties, risks of further oil price increases, and the fallout from governance scandals on risk appetites. However, the longer business caution persists, the more I suspect that we're missing something more fundamental.

The bottom line, in my view, is that we just don't have full understanding of what is damping the response of the economy to accommodative policy. The facts that there are these restraining forces and that our understanding of them is incomplete have important implications for the strategy of policy going forward in terms of helping to foster both solid growth and stable prices. Rates do need to rise, but it's impossible to prejudge the appropriate path when we don't have a good understanding of the important dynamic forces at work.

Tightening today is called for. I agree with most of my colleagues that it will bring the real funds rate into positive territory. It will mean that the increase in rates is larger than the increase in underlying inflation over the last year. Tightening today is built into the yield curve; on that yield curve intermediate- and long-term rates remain very low and consistent with very supportive financial conditions. But in my view, uncertainty about the economy implies that the path hereafter to achieve our objectives should be decided flexibly, meeting by meeting, depending on incoming information. And I think the burden of proof for skipping a meeting or for slowing down the pace of tightening should not be unusually high.

Markets have reacted to recent incoming data by reducing the expected pace of tightening beyond this meeting. They think we can and will skip taking action at some meetings if the data suggest we should. These expectations could reverse quickly should incoming data on activity or prices strengthen. I believe these types of reactions are quite constructive and impart an important automatic stabilizer to the economy. I hope we don't do or say anything that will leave the impression that we are not ourselves prepared to adapt to changing circumstances. Moreover, I believe that flexibility is still most likely to be called for around a very gradual path of tightening. Incoming data have reinforced the perception that the risk of accelerating prices has diminished and that relatively low intermediate- and long-term interest rates could well be required to sustain solid growth. Both markets and the staff have marked down their expectations for policy.

In addition, the case for gradualism in the face of uncertainty is well known—nicely summarized by Governor Bernanke earlier this year. A related strain of research has shown that, when the FOMC is uncertain about the levels of the natural rate of unemployment or, as in the current circumstances, about the natural rate of interest, paying attention to inflation and growth rates is useful to avoid policy mistakes. In the Bluebook table depicting policy rules, there are two rules in which formulas for the funds rate are derived from changes in inflation and output, and those illustrate this approach. They suggest a shallow upslope to rates, not too different from the assumption in the Greenbook. Undoubtedly, this will not prove to be the appropriate path for policy, but I'm not sure in what direction the path should deviate, and we will need to look at the data to make that judgment. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. The news that we have to deal with for this meeting relates to the mysterious soft spot that is affecting or trapping the economy. We've had soft spots before, blamed variously on the hangovers from the 1990s, the Iraq War, Enron, and Sarbanes–Oxley. Let's face it, none of these is a credible explanation for the current slowdown. At the last meeting, I thought the problem was an oil shock. While I still think the economy is suffering the effects of an oil shock, I'm beginning to think that more is going on. If one goes back to our forecast earlier in the year or looks at the Greenbook forecast revisions or the Blue Chip forecast revisions lately—and this is the point that Don just made—both inflation and output forecasts are down. Perhaps this suggests that we may have a plain old demand shock out there mixed in with the oil shock.

Whatever the shock is, there also seems to be a strong international dimension to it. Taking the International Finance Division's forecasts of yesterday, if one could imagine the world economy without the United States and China, domestic demand would be deficient in country after country. The countries that are doing well are those that trade a lot with the United States or China or both. And in general they are doing well because of exports, not anything related to domestic demand. It is too strong to say that there would be a world recession without the U.S. and Chinese economies, but there would certainly be global sluggishness. And this sluggishness would be greatly magnified, as we discussed a minute ago, if the dollar started slipping, which it might do at any point. As I am told, John Connelly once said, "Our dollar, your problem." [Laughter]

So what do we do about all of this? With weakness emanating from some unknown source, seemingly on the demand side, do we continue our program of gradually raising or re-equilibrating rates? I would say "yes" for this meeting, but I'm getting much less certain about future meetings. To rationalize my vote for continuing to re-equilibrate, my own personal view is that up to now the re-equilibration process has gone very well. Since we began raising rates in late June, the funds rate has risen 50 basis points, yet ten-year bond rates have fallen 65 basis points over this span, and even the TIPS long-term rate has fallen 30 basis points. A 35 basis point decline in long-term nominal rates would be fully explainable within the context of orthodox macro theory; that is, either the Fed showed it was concerned about inflation, or inflation just plain dropped and the inflation premium in long-term bonds was reduced. As for the 30 basis point drop in real interest rates, there are technical explanations, but the most likely cause is that the real economy has weakened. Whatever the explanation, why fight it? We have an opportunity to bring the financial system closer to equilibrium. We can lessen the chances that we'll be caught with inordinately low interest rates should inflation suddenly speed up, and we most likely can do this with minimal effect on real long-term rates, perhaps even a negative effect if there is some sort of expectations effect. This win–win situation can't go on indefinitely. If it were to do so, lots of macro textbooks would have to be rewritten. But it does seem a likely result for today and, again, why not take advantage of it?

One broader point should also be kept in mind. Re-equilibration means re-equilibration in several different markets more or less simultaneously. The funds market is now something like 3 percentage points out of long-term equilibrium, as defined mechanically according to past averages. The long-term market may be about half or perhaps a little more than that out of equilibrium, defined the same way. I don't know that there is any theorem that re-equilibration will happen at an equal pace in different markets, and maybe it shouldn't puzzle us much if the pace of re-equilibration is different.

So my judgment on what we should do today is clear. We seem to have a situation where we can restore equilibrium a bit without damaging the economy, at least for a stretch. This is a good horse to ride, and we ought to keep riding it for now. When we get to the next meeting, it may be time for the "pause that refreshes," or it may not be. Markets seem to be responding to the data, and perhaps we should as well. Thank you.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. In reviewing developments so far in 2004, it's useful to characterize the economy as having faced a medium-sized aggregate supply shock during the first half of this year. This composite shock comprised various effects associated with the decline in the dollar, the increase in broad indexes of commodity prices, and the especially sharp rise in energy prices. The mixture of the supply shock and the ongoing cyclical expansion made the economic data particularly hard to interpret this spring. This Committee was generally more willing than outside forecasters or market participants to link macroeconomic developments to the influences in this composite aggregate supply shock, particularly the energy cost component. We argued on that basis that both the rise in inflation earlier this year and the soft patch in economic activity in June were likely to prove transitory. Both of these forecasts have worked out pretty well, supporting the view that shocks to aggregate supply were indeed the principal reason that inflation in the first half was higher and growth lower than had been expected.

Arguably, at this point, the effects of the supply shock may be, to a substantial degree, behind us. The dollar has been roughly stable all year, and the rise in import prices accordingly has decelerated. Broad indexes of commodity prices peaked in March. Oil prices are still rising, and their volatility as well as their level may have a damping effect on the economy. However, about three-quarters of the increase in near futures crude oil prices since late last year had already occurred by last May, and refinery margins have fallen. The waning effects of the supply shock can be seen directly in the moderation of core inflation and the rebound in spending in the third quarter, as we've already noted. Of course, further rises in oil prices or declines in the dollar are always possible. If no such development occurs, however, the ebbing of the supply shock will afford us increasingly greater clarity about the underlying strength of this expansion.

My own very tentative assessment is that the recovery at this stage is proceeding at a pace that is solid but somewhat less vigorous than we had hoped or expected. In particular, expansion at the current pace seems unlikely to create new inflationary pressures. Looking forward, the jobs data will be crucial. If job growth continues at the pace of the past few months, I think we would have grounds for concern about both business confidence and the prospects for household spending.

Overall, I think our strategy of removing accommodation at a measured pace has worked out well, not only in providing support to the economy and avoiding nasty surprises in financial markets but also in allowing us time to assess ongoing developments. I support our current plan of measured withdrawal of emergency stimulus. We surely can raise the funds rate today without doing damage to the recovery. I also see no need to change the basic framework of our statement. As we go forward, however, we should remain flexible in slowing or speeding up the process as dictated by incoming data. Financial markets are well prepared for this type of flexibility, and I believe it fits well with our declared strategy of removing accommodation at a measured but not mechanistic pace. Thank you.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. Thank you, Mr. Chairman. I've again had some discussions with contacts in the banking sector in preparation for this meeting, but they tend to reflect the comments that we've heard around the room, particularly Governor Bernanke's observation that the economy's growth is solid but less vigorous than expected. Certainly, nothing I've heard from those I've talked with in the banking sector would be different from that.

As the one member of the FOMC who has spent a lot of time as a political operative, I couldn't help but think about today's meeting in the context of the fact that the upcoming presidential election is six weeks from today. I was reflecting on the concerns that have become issues in that contest and those that haven't and the implications they might have for the economy. The deficit levels and spending restraints have not become issues. We didn't expect that they would. Social Security, Medicare, and Medicaid also have not become political issues, but I think concerns about them have been elevated during the course of the campaign, not by either party but by interested observers—not the least of whom is our Chairman as well as Pete Peterson and others. Just as we were talking earlier about our prospective role in discussions about the dollar, I would suggest to members of this Committee who have concerns about deficit spending, Medicare/Medicaid issues, and certain tax policy issues, that the time to elevate those discussions is immediately following the point when it becomes clear who the next President will be. I hope that will be right after the election this time! [Laughter]

To the extent that James Carville's admonition that "it's the economy, stupid" is correct, there seems to be minimal differentiation of the economic issues this time. The most aggressive protectionists were given early exits from the process. We do hear talk about tax policy and about outsourcing, but the one issue that seems to resonate is economic uncertainty. The solution for that is not clear, which does not suggest that it isn't a problem just because a solution is not evident. But, importantly, monetary policy has not been a political issue. For the three years that I've been either on this Committee or thinking about being on this Committee, I've wondered about the extent that it would be as we moved into this time frame and came into this meeting. The question to my mind was never whether the FOMC would allow political pressure to interfere with its decisions on the appropriate monetary policy—I was certain it wouldn't—but the opposite. The question was whether the implementation of appropriate monetary policy would become a political issue.

Mind you, today's statement will be examined very carefully for political advantage, and attempts to gain that advantage will be made. But almost certainly there will be none, I think for two reasons. First, the general sense of the appropriate implementation of our policy ensures our credibility, and second, there is the clarity of our communication. Now remember, the communication can work only if the first part is accurate. During the last several years, we have gone from being accommodative, to being accommodative for a considerable period, to a time of patience, to removing accommodation at a measured pace. And moving from accommodation toward a return to neutral at a measured pace is not only the appropriate policy, but it will be, in my view, not at all a political issue.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. As others have indicated, the U.S. economy appears to be poised to pick up gradually from the soft patch that afflicted it over the late spring and early summer but, as others have also said, perhaps more gradually than we had thought at the last meeting or earlier this year. In response to that reality, the Greenbook has undergone another makeover, with the new forecast pointing to a more subdued growth outlook while still featuring stable inflation. The staff has extended the forecast period, and we now see that the output gap does not close until late 2006. I have no strong objections to this new forecast, and unlike the last two meetings when I was very anxious about the downside risk to the baseline, the risks around this baseline seem to me somewhat more balanced, although the range of uncertainty is still quite large.

I might give a litany of the risks or list why I buy into the forecast, but I'd like to move on to the question that Janet and others raised: Why, with all the stimulus in the pipeline, is the economy facing a prospect of very low inflation and a resource utilization gap that closes only at the end of 2006, when the so-called recession was extremely mild and so many years behind us? I, of course, don't have the answer to that question, but I'm going to offer a few hypotheses.

One I'd like to reject is the oil price spike. I think Governor Bernanke and others have it right that that seems to have been part of the negative supply shock in the early part of the year. But with oil prices waning, I think that seems unlikely to be the real source of the problem that the economy is facing.

Let me mention two or three more likely options. One is that the bursting of the asset bubble and the series of shocks that have hit the United States since early 2001 may have been more problematic than we originally thought. And here I disagree a little with the tone that Ned took. As we've learned from the Japanese experience, it can take many years to counteract the fallout from the bursting of an asset bubble. And it may be, even with the better policy mix we've had here than in Japan, that it still could take longer than anyone originally expected to deal fully with the fallout of both the bursting high-tech bubble and the series of subsequent shocks, all of which I think have been fairly significant. We've seen this reflected in the phenomenon that's being called "business caution." I, maybe more than others, think that there's something to this. As I've read the views of Reserve Bank directors that you have communicated in your letters relating to their discount rate decisions, a number of boards of directors have at least some members—in several Banks, many members—who buy into the view that there's a sense of caution among businesses. If one looks at various surveys such as the NFIB survey and the survey from Duke University of 200 CFOs, they all talk about a malaise story. The survey of CFOs indicates that they expect growth to be only 2.8 percent over the next four quarters, noticeably lower than even our staff forecast. I think this business malaise issue is very important to watch and, as firms go into their capital planning cycle, I believe we'll get some more information on it. But I do not think it's something we can reject quickly.

A second factor affecting our economy is what has been described as "global imbalances." But the imbalances are not between this country and the rest of the world. I think the imbalances are within the other economies, and Ned picked up on some of this. First, we've seen that the financial indicators in almost all of the major industrial economies have been marked down or have shown some expectation of slower growth going forward, just as ours has. Market participants in Japan, the euro area, the United Kingdom, Switzerland, Australia—in the industrial economies around the world—have been marking down their forecasts of economic growth. The second point to make about the rest of the world is that domestic demand has been incredibly weak in almost all of those economies. I think Ned covered this quite well, and I won't take the time to repeat all of it except to note something that no one else has observed—namely, as was pointed out very clearly in the Greenbook Part 2, domestic demand in the euro area was growing only 0.6 percent. Net exports there accounted for almost all of the growth. And obviously we've seen a marking down of growth expectations in Japan, which again has been driven primarily by net exports. So we really are the only engine of economic growth in the world. And we are in this interesting dichotomy with China and the rest of the world, which may in fact play into some of the issues that Karen was talking about earlier.

The third possible explanation is that investment in new capital goods, such as high-tech goods, may be less urgent than we had thought. This could be for two actually quite different reasons. One is that there may be a deeper pool of productive capital than we had envisioned and one that is also longer lived than we had originally thought. The combination of both more-productive and longer-lived capital would support highly productive and profitable businesses, which we have seen, but would also reflect an environment in which demand for new investment is not so great. One important finding in this regard is from some work that two staff members, Rochelle Antoniewicz and Erik Johnson, did at my request. I asked them to divide up the entire Compustat data base into six or seven non-overlapping industry groups and to examine the financing gap in each. They found that the gap in each industry group except oil and gas has declined over the 2000-04 period. The overall drop in the financing gap in this analysis was $291 billion, which is really quite a big swing across the industrial sectors they looked at. So it may well be that businesses view their existing capital goods as fully adequate to deal with the outlook that they see.

The other aspect of this possible explanation is that the slow growth in capital expenditures may indicate that the new high-tech investments now coming on board are not nearly as attractive as the prior generation of such equipment. One piece of evidence that supports this theory is that both our staff and the BLS have estimated that the deflators for various classes of high-tech equipment, such as desktops, servers, and laptops, have all fallen relatively little since 2001. For example, our staff estimates that the deflator for desktops has shown only a 10 to 20 percent decline year over year from 2002 to 2003. That seems like a fairly large decline in the deflator, but in fact if one goes back to 2000 and 2001, that number was 50 percent. All of this suggests that there may not be, as I've said many times, a "killer ap" out there. In more technical terms, there's not a technological advancement that might catalyze new investments. So we may be confronting a phase where some of the positive supply shock that we experienced before has worn off and businesses see that and aren't so eager to invest. That may explain why one of the areas of weakness that we are dealing with is equipment software.

So those are two or three different hypotheses. But whatever the explanation that ultimately proves true—and it may not be any of those—I think the macroeconomic result is the same. In a textbook sense, the IS curve seems to have shifted down toward the origin, which gives both a lower effective equilibrium real interest rate and lower income. Overall, we seem to be confronting a new, less attractive set of interactions or dynamics that include growth in final demand but relatively slow growth compared with potential, low investment in both high-tech equipment and perhaps inventory, and some slowing of growth in the demand for labor and in hours worked. While all of this is still positive, it's slower—more punkish if you will.

How should we handle this range of outcomes? I think here the Greenbook and the new interest rate assumptions the staff has made may give us the appropriate hint. I'll just pick up on the same words others have used by saying that I'm "quite comfortable" with moving rates up

25 basis points at this meeting. But going forward I think we should be more “pragmatic”—if I can use a word that’s not so attractive in this community—or more “flexible,” to pick up on Don’s word. We have to let the data and changed outlook lead us going forward. That may imply a pause at some point in the not-too-distant future, or it may imply a pickup in the pace of our policy moves at some time in the foreseeable future. It also may imply some change in language—not at this time, but at some point in the not-too-distant future. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. The economic indicators, as others have said, have been variable in the last few months. But on net they show continued expansion, though at a slower pace than in the second half of last year and the beginning of this year. And as Governor Ferguson just mentioned, recent surveys show that business attitudes, both at large companies and small businesses, while still positive, are a little less optimistic than they were last quarter.

I’d like to use a couple of anecdotes to throw on the table a few more hypothetical explanations for what may be happening here. One is that CEOs, even in meetings with stock analysts, sometimes are mentioning that their management teams have shifted their focus since June, when the final rules came out for Sarbanes–Oxley, to implementing audit adaptations and internal controls by year-end in order to be compliant with that legislation. Those activities take time that management normally would use to make decisions on business expansion. They don’t know what to expect with regard to their ability to comply with Sarbanes–Oxley, and we’re already beginning to see in some 10Q warnings by some companies that they may not be totally compliant by year-end. The reputation risk here is very significant for these companies.

Second, another interesting development—and I will cite the same Duke survey that Governor Ferguson did—is that while CFOs of large companies are expecting GDP growth to moderate to only 2.8 percent in the next twelve months, they still are anticipating earnings growth at their own companies of 13.4 percent on average. This gets back to a comment I've made in the past, which is that, in talking to CFOs, I realize that they still live in nominal worlds. And one of their reasons for caution in both spending and hiring is their concern about how they can deliver double-digit earnings growth to the Street when they see modest sales and very moderate inflation in the months ahead. The only way to get that bottom-line growth is to control expenses.

The other comment I'd like to make is that, overall, companies are stronger. One of the indicators I look at is the pattern of changes in corporate debt ratings. Worldwide, this will be the first year since 1998 that we've seen more debt ratings rise from below investment grade up to investment grade than we've seen go down from investment grade to below it. It has taken six years for that to happen, and it's one of the reasons we've seen credit spreads come in.

The latest inflation data continue to show that inflation is moderating from the rates recorded in the spring—again with health care a notable exception. That moderating rate of inflation is one of the things that make me feel that the expansion is likely to continue, though at a modest pace. Therefore, I feel that the position we have taken—that policy accommodation can likely be removed at a measured pace—is still the appropriate signal to send to the market. That signal, I think, has helped to extend the expansion because it has helped the long-term debt market. As several of you have already noted, long-term debt rates have come down even though we've been raising the funds rate. And I think our credibility, as we move along this path, will keep capital within easy access and affordable to companies when they do have the confidence to make additional business investment.

CHAIRMAN GREENSPAN. Thank you very much. Mr. Reinhart.

MR. REINHART.[2] Thank you, Mr. Chairman. With the help of the first exhibit in the material distributed at the break, I want to begin by pointing out several notable features in financial markets over the past six weeks likely bearing on your policy deliberations. As shown by the solid line in the top left panel, short-term interest rate futures indicate that market participants currently expect the Committee to tighten gradually over the next year and a half, with the funds rate reaching 2⅞ percent by early 2006. Compared with the interest rate sentiment prevailing in the markets at the time of the August meeting (the dotted line), this path is a little firmer in the near term and shallower later on. Apparently, investors read recent statements by policymakers as confirming a desire on your part to continue to remove accommodation and interpreted data releases—especially subdued readings on inflation—as indicating that a lessened cumulative amount of firming will be required to deliver satisfactory economic performance. The shift over the intermeeting period was small relative to that in the run-up to the August meeting, when the weak employment report for July was released between the publication of the August Greenbook and your last meeting. Current market expectations relative to those at the time of that Greenbook (the dashed line) are about ½ percentage point lower one and one-half years from now—similar to the revision to the staff's policy assumption from Greenbook to Greenbook.

The top right panel focuses on near-term expectations by plotting the policy path that is consistent with the futures curve and assumes that the Committee will move only at regularly scheduled meetings. Those expectations indicate a near certainty of a ¼ point hike today—which is also what dealers told the Domestic Desk in its regular survey—and put the funds rate near 2 percent at year-end. Thus, market participants expect you to pause sometime soon in the process of removing policy accommodation—probably in December. These expectations seem to be held relatively firmly, in that implied volatility on near-term Eurodollar futures rates (given in the middle left panel) has trended lower, a phenomenon not unique to this market. Despite subdued readings on interest rate volatility, market prices have responded forcefully to key data releases. The middle right panel compares the change in the ten-year Treasury yield (plotted on the vertical axis) in the half-hour surrounding the release of the employment report with the surprise in the nonfarm payrolls (or the actual value less a survey measure), which is given along the horizontal axis. As shown by the red regression line, the average response to employment surprises in the last year has been considerably more marked than in the prior ten years. As President Geithner noted, one possibility linking the two middle

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

panels is that the explicitly conditional nature of your statements has lowered uncertainty about your actions and focused attention on a few indicators. The arrow in the figure points to the observation corresponding to the release of the August employment report on September 3, which is a bit of a puzzle. The monthly gain in payrolls was a touch weaker than market participants expected, yet rates rose considerably. You might rationalize this as owing to backward revisions to the employment data, but I think it also shows the market's judgment that the data were not soft enough to halt your process of removing policy accommodation.

The net effect of other data over the intermeeting period, however, more than offset this one-day rise in rates. The downward revision to policy expectations was associated with a considerable relaxation in financial conditions, in that, as shown in the bottom panel, corporate yields are lower, equity prices posted sizable gains, while the exchange value of the dollar moved sideways. How you interpret this easing no doubt influences your decisions today both on the funds rate target and on the words of the statement.

Members might view the decline in yields and the concomitant rise in share prices as the dawning recognition among investors that a lower track for the real risk-free rate of interest will be necessary to support economic growth. As discussed at the top of exhibit 2, a decision to hold the funds rate at 1½ percent would no doubt encourage an even more substantial revision to the outlook for policy. While the Committee may be convinced that a sustainable economic expansion is in place, it may be concerned that the pace of output growth will not be sufficiently vigorous to ensure satisfactory progress in reducing economic slack.

As shown in the middle left panel, the advance in payrolls has been fitful in recent months and perhaps indicates a lingering hesitancy on the part of businesses to make commitments, which several of you have already mentioned. If that hesitancy continues for too long, then it may also be reflected again in capital spending and begin to dent consumer confidence. Persisting slack has also rolled back a portion of the turn-up in inflation of the first half of the year. As can be seen in the middle right panel and as noted by President McTeer, the three-month change in the CPI has dropped back to the levels of last year, when worries of the possibility of deflation surfaced. And market participants apparently have lowered their expectations for inflation going forward. For instance, as plotted in the bottom left panel, the nominal one-year forward rate ten years ahead, which has been quite sensitive to longer-run inflation sentiment, has edged down to just below 6 percent. If resource slack persists, inflation could fall to levels that the Committee might find uncomfortably low, given the limits to conventional policy maneuvering posed by the zero bound to nominal interest rates.

I'd add that the "measured pace" language would not seem to pose an obstacle to pausing in the process of firming, in that futures rates indicate that financial market participants already anticipate inaction at one of the next three meetings—although evidently not at this one. Indeed, a pause at this time might be seen as having the benefit of ensuring that market participants do not come inappropriately to view the "measured pace" language as a promise to firm policy 25 basis points at every meeting. There is, however, an important obstacle to putting the process of tightening on hold at this meeting: The universal conviction in markets that you will not do so implies that the reaction to inaction could be sizable. A pickup in mortgage hedging flows could magnify any initial downdraft in yields. The rally in fixed-income markets in recent weeks has pulled down the thirty-year mortgage rate to 5¾ percent, which is shown as the vertical line in the bottom right panel. According to an estimate of the cumulative distribution of rates on outstanding mortgages, about 35 percent of them could be refinanced economically given current pricing. Because of the wave of refinancings last year, outstanding mortgages are tightly clustered at rates not much lower than the prevailing level. As a result, further reductions in longer-term yields would likely lead to substantial prepayments of mortgages. The experience of last year suggests that the resultant shortening of the duration of mortgage-backed securities would prompt purchases of other longer-term securities, amplifying the decline in rates and elevating volatility. Deviating from the currently expected path of measured firming would seem to risk a considerable easing of financial conditions, which may not be judged as appropriate at this time.

But the most compelling reason not to opt for alternative A is that you see merit in tightening, the subject of exhibit 3. The Committee may believe that the economic expansion will remain on a desirable track under current financial conditions, which incorporate market expectations of gradual policy firming. In such circumstances, it would seem appropriate to validate those expectations by tightening 25 basis points at this meeting, as in the B and C alternatives presented in the Bluebook. As can be seen in the middle left panel, even with the two tightening steps that the Committee has taken to date, the real federal funds rate is still close to zero and near the bottom of the range of equilibrium values estimated by the staff. A modest boost to the nominal funds rate would also be consistent with a number of monetary policy rules shown in the middle right panel. And given the forces likely to impinge on aggregate demand in coming quarters—including the efforts by households to rebuild savings, the swing from fiscal impetus to restraint, and the intensifying drag of net exports—the Committee may find a quarter point move to be a sufficient step in removing policy accommodation at this time.

As to the wording of the statement—which is the only distinction between alternatives B and C—if the Committee put much weight on the possibility that growth will rebound sharply, it may believe that the scope of its future action is unduly constrained on the upside by the "measured pace" language and may prefer to drop the last two sentences from the statement. That may be especially so if you interpret the decline in risk spreads and increases in the price–earnings ratio shown in the table at the bottom left as evidence of an increased appetite for risk-taking. In that case, you may be concerned that the spur to spending of a lower cost of funds and higher wealth poses the risk that the growth of aggregate demand would quickly outstrip that of potential output. While such an outcome may be welcomed if the output gap were as large as in the staff forecast, you might share President Guynn's fear that the prospects for aggregate supply were described not by the Greenbook baseline but by the "less room to grow" alternative simulation. In that alternative, the NAIRU is higher, and the labor force participation rate does not rise any further to augment labor inputs going forward, putting inflation on an upward march toward 2 percent, as shown in the bottom right panel.

Removing the last two sentences would certainly surprise market participants, who would presumably build in expectations of more-substantial action to come. Therefore, you probably would not want to consider acquiring the flexibility associated with alternative C unless you also desire an immediate tightening of financial conditions. Alternative B would provide the comfort of aligning your decision with prevailing expectations while giving only limited and highly conditioned guidance on your future actions. Retaining the risk assessment of August would seem appropriate if you believe that you will have to be cautious about the extent and speed with which policy accommodation should be removed. After all, it is not yet firmly established that the economy has exited its soft patch, and you may prefer to await more information on that score.

Your last exhibit updates table 1 from the Bluebook in light of comments received since its distribution on Thursday. In particular, as shown in bold, it seemed clearer to link the description of the performance of output and the labor market in the rationale paragraph by writing, "After moderating earlier this year partly in response to the substantial rise in energy prices, output growth appears to have regained some traction and labor market conditions have improved modestly." That concludes my prepared remarks.

CHAIRMAN GREENSPAN. Thank you. Questions for Vincent?

MS. MINEHAN. I see that you made a slight change in B5 where the proposed language is "to be roughly equal" as opposed to "are roughly equal."

MR. REINHART. That was at the suggestion of the house grammarian, who complained about the wording in the August and previous meeting statements.

MS. MINEHAN. Okay. So that really is unchanged, so to speak, from the current statement? I was reading it and wondering, What am I reading here?

MR. REINHART. I don't think my maneuverings are that subtle! [Laughter]

MS. MINEHAN. One never knows. Another change, which I had submitted as a suggestion and I guess no one likes it but I'll raise it anyway, is whether or not we want to make B6 look more like A6 by referring to sustainable growth as well as maintaining price stability. Now, maybe I should leave that to the Chairman to recommend. That may be a subject for the next part of the meeting.

MR. REINHART. I would note that some market analysts have pointed to such a possible inclusion as an explicit signal that policy will pause.

MS. MINEHAN. We would stop?

MR. REINHART. Yes. So that would have more import than just aligning the statement to the goals in the Federal Reserve Act. It would be taken as a market signal.

MS. MINEHAN. Okay. I sort of figured that, but I also thought that might not be a bad thing. But, again, that's a subject for our discussion a few minutes from now.

CHAIRMAN GREENSPAN. Further questions? If not, let me make just a few short remarks. The general outlook, as best I can judge, has been fairly well described around this table, and I don't have anything significant to add. I do want to respond in a way to President Minehan's last remark. The only thing that I think should be, and probably is, on the table, is whether we should encourage lower ten-year interest rates, given how close they are to levels that would prompt a lot of mortgage refinancings and a significant drop in duration in the mortgage market, with the potential cumulative effects of such a development that others have pointed to.

We have to be careful largely because, while there's no question that some softening has occurred in the overall expansion of the economy, the numbers in the Greenbook, if they materialize, are really quite strong, and in that regard it's quite credible to forecast much more rapid growth in employment than we have experienced in recent months. That's largely because the standard error in the payroll series is quite large, and other indicators of employment have been quite a bit stronger than the payroll series. For example, in recent months the net difference between hires and separations in the private sector has shown strength, job openings have increased, and initial claims have been remarkably low. So it is by no means out of the question, especially since productivity growth is probably slowing at this stage, to come up with some outsized employment number. And if we take seriously the scatter diagram that Vincent has shown with respect to the response to employment surprises, we could get a fairly dramatic change in financial conditions in this particular market.

One concern in the latter regard is that the carry trade has come back. If duration falls on top of that, we may end up with a situation that, in the event of an employment surprise, could create some significant collateral damage in the balance sheets of American businesses, with negative repercussions on the economy. Remember that a surprise in which interest rates fall and, hence, create capital gains in balance sheets, never caused anybody to go broke. There's an asymmetry here relating to the speed of adjustment.

So it strikes me that, even if it is our opinion today that we will pause at the November meeting, we should not convey that message at this point because we would be taking risks that I think are unnecessary and could be quite costly if we are wrong. On the other hand, the risk of fostering a presumption at this meeting that we will increase rates further in November and even in December leaves us in a position where we can pause in either of those two months or in both, if we choose to do so, without significant consequences. If we do decide to pause later in the year, we will end up with lower long-term rates, higher bond prices, and presumably higher asset prices on the balance sheets of a number of financial institutions.

In sum, I think we have to lean against conveying the presumption that we will pause or essentially bring to an end our current policy course, which I think has been more successful than we generally expected when we initiated it. Keeping our press statement essentially unchanged but obviously leaving open the possibility of a policy change therefore strikes me as the best thing to do. Accordingly, I recommend a 25 basis point increase in the federal funds rate and a basically unchanged statement as in alternative B. Remember that we have a seven-week interval before the next meeting, and a lot can happen one way or the other in that period. Before we take a vote, I'd like to have copies of the proposed statement distributed. Why don't we all read the draft release, and the floor will then be open for discussion. [Pause] President Poole.

MR. POOLE. Mr. Chairman, I support your recommendation for increasing the intended funds rate by 25 basis points and for the statement as written. I'm reminded of something my mother used to say when I was a child. I grew up in a family of four children with lots of cousins around, and she would often say, "Children are to be seen, not heard." And I think that's true of monetary policy today. We should be as quiet as we can possibly be. In fact, as a general rule, I think one of our goals should be to make policy very noncontroversial and predictable, and we should not raise issues that don't have to be raised. So I support this proposal completely.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. I support the recommendation.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I support your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. I, too, support your recommendation, and I would largely echo Bill Poole's remarks.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. I support the recommendation and the press release.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I support your recommendation as to the policy change. I take your point about the language of the statement. As I said in my comments—and other people have mentioned it as well—the big unknown is how much employment is going to grow. I certainly hope your predictions are on the mark. I'm rooting for us to be successful.

CHAIRMAN GREENSPAN. Let me put it this way, if the Greenbook projections actually turn out to be right, that would be extraordinary.

MS. MINEHAN. Oh, yes. I'll buy the Greenbook employment projections.

CHAIRMAN GREENSPAN. President Lacker.

MR. LACKER. I support your recommendation, particularly about the last sentence of the statement.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. I support your recommendation.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I support your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. I support your recommendations, Mr. Chairman. I think the current structure of rates is close enough to what we need, and I would hesitate to do something that would cause a lot of fluctuations in expectations. If we get to the point in November or

December where we pause, I think rates will go down. It will trigger some of that refinancing we've talked about. I'm not really worried about the financial system in that situation; it's pretty robust. It proved that in the summer of '03. There wasn't that much collateral damage, but we don't have to inflict it until we have to.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. I support your recommendation. I would note that if we get to the end of this year and feel we have to take a pause then, we actually may want some of that refinancing if that's going to help consumers. So let's not be afraid of getting all the help we can get to keep the economy growing as long as inflation is under control.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN GEITHNER. I support the recommendation.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I support the recommendation.

CHAIRMAN GREENSPAN. President Yellen.

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

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I support it.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. I support it as well.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. I support it.

CHAIRMAN GREENSPAN. Mr. Secretary, will you read the appropriate language?

MR. GRAMLICH. I support it, too—even though you didn't care! [Laughter]

CHAIRMAN GREENSPAN. Sorry, I didn't mean to skip you. I realize that silence would not have been your position.

MR. BERNARD. Let me begin with the directive wording, which is on page 15 of the Bluebook: "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 1¾ percent."

With regard to the wording in the press statement that is formally voted on, the second full paragraph of the draft statement: "The Committee perceives the upside and downside risks to the attainment of both sustainable growth and price stability for the next few quarters to be roughly equal. With underlying inflation expected to be relatively low, 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.

MR. BERNARD.

Chairman Greenspan	Yes
Vice Chairman Geithner	Yes
Governor Bernanke	Yes
Governor Bies	Yes
Governor Ferguson	Yes
Governor Gramlich	Yes
President Hoenig	Yes
Governor Kohn	Yes
President Minehan	Yes
Governor Olson	Yes
President Pianalto	Yes
President Poole	Yes

CHAIRMAN GREENSPAN. Vincent Reinhart, you wanted to mention something about the minutes?

MR. REINHART. I just wanted to give a quick report on the experiment with the expedited minutes. Once again, we got the Committee to indicate its inclination to approve the minutes in time to meet our deadline. That is, we would have been able to publish the minutes two and a half weeks after the August meeting. Once again, it was a close call. The Chairman has asked me to put a discussion of the minutes experiment on the agenda for December. I'll brief you then on some of the lessons we've learned and ask for guidance going forward. Now I think the Chairman has a report on other developments relating to the Secretariat.

CHAIRMAN GREENSPAN. Not at the moment. I want to put the FOMC meeting on pause, as we like to say, and ask that the Board members proceed to my office.

MR. BERNARD. Let me mention that, as soon as the Board members come back, there will be a picture-taking session. And unless there is a change in plans, you will be asked to move to that end of the room.

MS. MINEHAN. When is this? Today?

MR. BERNARD. Yes, before lunch.

[Recess]

CHAIRMAN GREENSPAN. Would everyone be seated please? I would like to report that by unanimous vote the Board of Governors accepted the requests of the twelve Reserve Banks for an increase of ¼ percentage point in the discount rate—much to everybody's surprise!

As we close today, I would like to take a moment to recognize and to thank the gentleman sitting on my right because this is Normand Bernard's final meeting as Deputy Secretary of the Committee. He has announced his intention to retire from the Federal Reserve effective at the beginning of November. It is the end of an era. Norm has worked at the Federal Reserve for more than forty-two years. As far as we can tell, today's meeting is the 345th that Norm has attended in serving this Committee, and I want to emphasize the word "serve." His dedication, his integrity, and his willingness to do whatever needed to be done have meant that Committee members could always count on him. His institutional memory, as you well know, is prodigious, as of course are his files! [Laughter]

From a personal perspective, he and his team have been a pleasure to work with throughout our meetings and in the preparation of the minutes and transcripts. And Norm always has an amusing story to contribute. I have here in my hand a piece of paper, which is a bit yellowed, signed in 1962 by William McChesney Martin, granting Norm access to the minutes and other confidential material of the Federal Open Market Committee. As the fourth Chairman of the Federal Reserve since then, I regret that I am the one to witness the end of Norm's extraordinary forty-two years.

Today, Norm, we hope you will consent to join us in having a group picture taken because we would like to have it inscribed and presented to you as a token of our sincere appreciation. Moreover, I understand that there is a cake in the next room prepared for us as part of the celebration. It has the number "345" outlined on its frosting. That, I can assure you, is not the calorie count. [Laughter] It's commemorating the record number of FOMC meetings that you have attended. I know I speak for the entire Committee when I express our deep gratitude for your hard work, your good humor, and your steadfast support over the years. We wish you the very best in the future.

MR. BERNARD. Thank you very much, Mr. Chairman. [Applause] Well, this is a surprise. I don't know what to say. Obviously, I've stayed on about a dozen years beyond the time when I could have retired because I liked the work. I joined the FOMC Secretariat in 1968 and have enjoyed the experience immensely ever since. I’ve especially liked the work atmosphere and the people I have been working with. In some cases, I’ve known you for quite a long period. For example, as I look around the table, I’m reminded that two of you were fellow staff members in the 1960s—President Poole and Governor Gramlich. And several of my former colleagues from the 1960s became members of the Board of Governors, including Nancy Teeters, Martha Seger, Lyle Gramley, Chuck Partee, and Bob Holland. Governor Kohn came somewhat later. [Laughter] Presidents Yellen and Minehan worked here at the Board as well. The one constant was the high quality of the staff and the Committee members with whom I have worked. I’ve enjoyed my association with all of you over these many years, and I thank you for the friendship that you have expressed and you, Mr. Chairman, for your very kind words this morning. Again, thank you all very much. [Applause]

END OF MEETING