

**Meeting of the Federal Open Market Committee on
October 28, 2003**

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Tuesday, October 28, 2003, at 9:00 a.m. Those present were the following:

Mr. Greenspan, Chairman
Mr. Bernanke
Ms. Bies
Mr. Broaddus
Mr. Ferguson
Mr. Gramlich
Mr. Guynn
Mr. Kohn
Mr. Moskow
Mr. Olson
Mr. Parry

Mr. Hoenig, Mses. Minehan and Pianalto, Messrs. Poole and Stewart,
Alternate Members of the Federal Open Market Committee

Messrs. McTeer, Santomero, and Stern, Presidents of the Federal Reserve
Banks of Dallas, Philadelphia and Minneapolis respectively

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

Mr. Connors, Ms. Cumming, Messrs. Goodfriend, Howard, Madigan, Struckmeyer, and
Wilcox, Associate Economists

Mr. Kos, Manager, System Open Market Account

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

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

Messrs. Clouse, Kamin, and Whitesell, Deputy Associate Directors, Divisions of
Monetary Affairs, International Finance, and Monetary Affairs respectively, Board of
Governors

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

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

Messrs. Fuhrer and Hakkio, Ms. Mester, Messrs. Rasche, Rolnick, Rosenblum, and
Sniderman, Senior Vice Presidents, Federal Reserve Banks of Boston, Kansas City,
Philadelphia, St. Louis, Minneapolis, Dallas, and Cleveland respectively

Mr. Dwyer, Ms. Hargraves, Messrs. Krane and Rudebusch, Vice Presidents, Federal
Reserve Banks of Atlanta, New York, Chicago, and San Francisco respectively

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CHAIRMAN GREENSPAN. We're ready to start our meeting. Would somebody like to move the minutes of the September meeting?

MR. FERGUSON. I'll move the minutes of that meeting.

CHAIRMAN GREENSPAN. Thank you. Without objection they are approved. Dino, you're on.

MR. KOS.¹ Thank you, Mr. Chairman. I'll be referring to the charts that were circulated a short while ago. During the first part of the intermeeting period, market participants looked at incoming data and concluded that the glass was half empty. Then for most of October, they tended to see the glass as half full. Interest rate developments largely mirrored these shifting views. The other topic that has occupied markets in the aftermath of the G-7 summit in Dubai is the dollar's exchange rate and the feedback effects that a further fall in the dollar might have on asset markets.

The top panel on page 1 graphs U.S. and euro-area three-month cash deposit rates and the three-month rate three, six, and nine months forward. During much of September, markets were disappointed by U.S. data, culminating with the weaker-than-expected Chicago PMI and consumer confidence numbers reported on September 30, and U.S. forward rates (the dashed red lines) fell sharply. However, starting with the September employment numbers, released on October 3, the outlook began to take on a more positive tone. GDP forecasts were upwardly revised, and forward rates started moving higher. Comments by President Parry and Treasury Secretary Snow in mid-October caused market participants to price in a higher likelihood that short-term rates would rise sooner than had been anticipated. But that flurry of angst quickly ebbed as stock prices began to give back some of their gains after news of disappointing outlooks from a couple of bellwether companies. On balance, forward rates are roughly where they were in late August. Short-term rates in the euro area, both cash and forward (the green lines) traversed the same general path as U.S. rates, as the outlook there was also perceived to be a bit more positive. Once again, euro area rates tended to show a more pronounced reaction to U.S. data and announcements than to European ones.

Yields in the Treasury market also followed the same general pattern, as shown in the bottom two panels on page 1. When ten-year yields briefly fell below 4 percent, some market strategists speculated that another wave of convexity hedging by mortgage accounts might kick in. In the event, that did not materialize. However, even without that, Treasury yields across the curve were choppy on a day-to-day

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

basis. The ten-year note of May 2013, which is now once off the run, has continued to trade with a high degree of scarcity value in financing markets and with a high level of fails. In earlier meetings when I was asked about the fails situation, I said that it was largely a back-office event that had not spilled over into the cash market. However, in the past week we have noted a decrease in transaction volume in this note, and it has begun trading very rich relative to the current on-the-run ten-year note. The May ten-year note is now yielding about 15 basis points less than the on-the-run August ten-year note, and the issue is trading at negative rates in the repo market. Given the very limited supply and reports that more investors are demanding delivery, it is not at all clear how this situation will resolve itself.

Despite the ups and down of the Treasury market, spreads continued to narrow, as shown at the top of page 2. The investment-grade spread (shown in the top left panel) continued to narrow. This index hit a low of 103 basis points on October 20. The last time the spread was that narrow was in April 1999. High-yield and emerging-market debt spreads also narrowed, as shown in the right panel. The high-yield index narrowed to a low of 453 basis points, the lowest level in about 4 years, while the EMBI+ spread hit its lowest level in 5½ years. A year ago the spreads on both of these indexes were at about 1,000 basis points. While a narrowing of spreads is expected during an economic rebound as the quality of credit improves, several strategists are voicing concerns about whether a liquidity-driven rally has pushed spreads to unsustainable levels—particularly in the emerging-market sector.

The apparent lack of fear also showed through in some volatility indexes. The middle panel graphs the volatility index on the S&P 100, also known as the VIX. On October 21, the VIX hit a low of 16½ percent, its lowest level in more than three years. Now, one volatility measure that rose was that of the dollar's exchange rate. The bottom panel graphs the one-month implied volatility of the euro-dollar and dollar-yen exchange rates. As shown in that panel, the volatility of the dollar-yen exchange rate, which had been trapped in a narrow range by Japanese intervention, spiked higher—from 8 percent to more than 12 percent in the days surrounding the Dubai summit and coincident with the suspension of Japanese intervention activity. The G-7 summit in Dubai gave the markets a lot to mull over. The dollar had already been under downward pressure before the summit. That, coupled with statements from the Administration earlier in September pushing for more exchange rate flexibility among Asian currencies, made the markets look cautiously toward the summit, but most observers did not expect much from the communiqué. In the event, reaction to the communiqué ranged along a wide spectrum. Some viewed it as a milestone that finally buried the so-called “strong dollar” policy; some were confused about what, if anything, the G-7 was saying; and some were convinced that nothing had changed and that the communiqué did not signify any policy shifts by the G-7.

In that environment it is not surprising that the dollar continued under some downward pressure. The top panel on the next page graphs the euro's value against the dollar. After a dip in late August, the euro appreciated sharply in the run-up to Dubai and in subsequent days. European policymakers at that point were expressing

some concern that the bulk of any adjustment to the dollar's exchange rate would have to be borne by the euro if many Asian currencies in particular continued to be fixed against the dollar. Asian currencies appreciated somewhat against the dollar, as shown in the middle panel, with the exception of the Chinese yuan, which continued at its fixed rate. Some central banks reacted with traditional intervention to stem the rise of their currencies; others resorted to capital controls, restrictions on access to local banking systems, and various forms of moral suasion. Although the Chinese yuan spot rate stayed fixed, the upward pressure on the yuan showed through in the nondeliverable forward (NDF) market where the one-year NDF implies a 4.0 percent appreciation of the currency. The Hong Kong dollar also strengthened in the days after Dubai, at first without actions from the Hong Kong Monetary Authority. Given the currency board system in Hong Kong, the lack of intervention surprised those who were short Hong Kong dollars and had perceived the currency board to be symmetric. The actions taken by a number of central banks in the region have added a sense of two-way risk to Asian currency rates, which perhaps was lacking before. A less favorable view expressed by some was that a new risk premium had been introduced into Asian markets. In any case, with reserve levels in Asia rising, traders are asking a number of questions: What is the end game for this process? How do these countries counter capital inflows? Do the central banks have the instruments to sterilize their foreign exchange interventions? And that list doesn't even include the broader macroeconomic questions that are relevant, such as the risks of overheated economies. The bottom panel graphs the dollar-yen exchange rate. That rate had traded in a narrow range until September 16, when the Japanese stopped intervening. The rate promptly depreciated sharply to the 110 region, whereupon the Ministry of Finance (MOF) again resumed intervention. This morning the yen/dollar exchange rate hit a three-year low of 108.10 amid token intervention by the authorities. During the period, the MOF purchased \$25½ billion, including \$400 million that the Desk purchased as agent on behalf of the Japanese authorities.

Given the large scale of Japanese intervention this year, I thought I'd spend a few minutes on this topic. The top panel of page 4 depicts net yearly intervention by the Japanese monetary authorities since 1989. With two months left in 2003, the MOF's intervention exceeds \$139 billion so far this year—more than double the previous high. The middle panel shows how Japanese intervention has evolved over the years. Each dot is a daily intervention purchase or sale of dollars over the period from 1989 to date. Between 1989 and mid-1995, Japanese interventions tended to be frequent, but each operation was relatively modest in size—at least by later standards. With a change in leadership at the Ministry of Finance in mid-1995 came a different intervention style. Over the next seven years, Japanese intervention episodes were much less frequent but much larger in size. Individual operations were frequently larger than \$5 billion and in a few cases more than \$10 billion. Ironically, the largest single operation is—appropriately perhaps—off the chart and was a sale of \$20 billion dollars in April 1998. For reference purposes, the largest dollar-yen intervention by the U.S. monetary authorities was \$833 million in June 1998. Since the beginning of 2003—coinciding with another leadership change at the MOF—Japanese intervention tactics have shifted yet again; interventions this year have been

frequent and large. In short, the two previous styles have been combined. The bottom panel looks at the effect of Japanese interventions on volatility during the major intervention episodes in the last nine years. The red bars show the intraday range, expressed in yen, on days the MOF did not intervene, and the blue bars show the range on days when it did intervene. Since intervention typically imparts some information to the markets—whether that is intended or not—markets generally react with a higher degree of movement than usual, and volatility rises. Indeed, that is the pattern we observe. However, during the January to July 2003 period, this traditional and expected pattern does not apply. The daily range was actually lower on intervention days, suggesting that intervention was constraining the “normal” elbow room, if you will, that the exchange rate uses in a typical day. That is also consistent with a strategy that appeared to be aimed at preventing the exchange rate from moving further rather than at attempting to engineer a reversal.

Mr. Chairman, once again, the Desk did not conduct any foreign operations in this period. I will need a vote to ratify domestic operations.

CHAIRMAN GREENSPAN. It looks as though each of the two types of intervention operations had some modest effect on the exchange rate and, when combined, that disappears. Do I infer from what you’re saying that the two earlier MOF regimes actually had some modest effect on the exchange rate but the combined method did not?

MR. KOS. Well, I’m not sure I would go that far.

CHAIRMAN GREENSPAN. I knew you wouldn’t! [Laughter]

MR. KOS. Academics have long argued about the effect of intervention. Certainly the size of the Japanese intervention has been incredible this year.

CHAIRMAN GREENSPAN. It’s even arguable as to whether it’s sterilized.

MR. KOS. That’s yet another set of issues. Nevertheless, the rate is about 12 yen lower than it was at the end of last year despite this very, very large intervention. Compounding the situation is the question of whether the intervention is sterilized or not.

CHAIRMAN GREENSPAN. I’ve been wondering out loud recently whether the extraordinarily significant bias on the part of commercial banks and households in Japan not to engage in a significant way in the purchase of foreign assets—far more so than is true in the

world at large—is a factor. Does carrying that over into the international exchange market create a bias in favor of the yen? If so, that essentially means that the equilibrium price of the yen vis-à-vis the dollar would tend to be higher than would ordinarily be the case if there were capital flows more reminiscent of what we've seen in the past in Europe and the United States.

MR. KOS. I don't think I would argue with that. In fact, one of the points that commentators have made over the years is that, in the absence of the Japanese financial system being able to recycle these funds, it is left to the authorities, through intervention, to do that. Even so, the scale of this year's intervention is very large and far exceeds the current account surplus. So they're recycling the current account and then some. The amount of intervention is quite pronounced this year.

CHAIRMAN GREENSPAN. My second question relates to the issue of how the foreign exchange markets are functioning. There is considerable bias in forecasts currently toward a weaker dollar, largely as a consequence of the rising U.S. current account deficit. Yet we're all taught, and the markets seem to suggest, that the spot rate captures all of the forward supply and demand as well as the spot through arbitrage operations. Largely because of the over-the-counter derivatives market one can go out ten, fifteen years in any of these major currencies. Consequently there is an arbitraging interaction along the maturity schedule of forward contracts, which ultimately fixes the spot rate. If that is indeed the case, it suggests that all market knowledge is effectively embodied in the spot rate and that, therefore, forecasting a change is a contradiction in terms. Is it correct to say that these foreign exchange markets are sufficiently sophisticated and deep that essentially all of the information is embodied in the spot rate so that forecasting is based on the presumption that one knows something that the market does not know?

MR. KOS. I have watched foreign exchange markets for about eleven years, which is nowhere near as long as you've been watching them, and I would never want to forecast exchange rates because it seems so impossible to do. So that's my first point. On your second question—whether the spot rate captures all the information that is knowable—I wouldn't even want to venture a guess. I don't know if Karen wants to give us some views on this question.

MS. JOHNSON. Well, I'm foolishly going to offer to say something on this subject! [Laughter] The dilemma with the arbitrage reasoning that you have accurately laid out is that one end or the other of the term structure of exchange rates implied by it needs to be nailed down in some way for that by itself to tell you where the spot rate should be. Regrettably, that's the piece that is missing. It's not that the arbitrage conditions fail, and it's not that the respective interest rate differentials don't give you a whole term structure at some level of movement in the spot rates. The problem is that nowhere is it attached to a level.

CHAIRMAN GREENSPAN. Algebraically I don't necessarily agree with you. In other words, let's say we have an aggregate supply and demand for a commodity—the reasoning works the same way for a commodity—with segregation with respect to the time frame. There is a sense in which the aggregate supply and demand equate to get an average price, and that term structure is essentially a function of the different levels of supply and demand along that period spectrum.

MS. JOHNSON. But the magic term is “aggregate supply.” What pins down the aggregate supply of a currency?

CHAIRMAN GREENSPAN. I'm not saying what pins it down; I'm just saying that it exists. Algebraically you have enough observations to solve the problem.

MS. JOHNSON. In real time on a given day, at a particular minute, a certain supply exists and the price equates demand to it, yes.

CHAIRMAN GREENSPAN. That's all I'm saying.

MS. JOHNSON. But in an attempt, based on theoretical reasoning, to determine what shocks should do to that system or what the future rate should be and so forth, the issue is that the supply of a currency has no economics behind it. The supply could be anything.

CHAIRMAN GREENSPAN. I don't know what those words mean.

MS. JOHNSON. There are no parameters of a supply curve that are driven by incentives as there would be, say, if we were talking about the price of lumber in a year. For example, one can think about the reasoning behind the actions of the people who buy lumber and of the people who sell lumber. And one could, rightly or wrongly, write down curves that describe that behavior and thus predict a price based on them.

CHAIRMAN GREENSPAN. Well, I'm just saying that there is a futures price for lumber. And I would submit that all along the curve of the futures market for lumber is in effect an arbitraging operation, which is fixed at a level that encompasses the aggregate demand and supply all the way out on the futures curve.

MS. JOHNSON. But recall that each exchange rate involves two currencies. So in the case we're discussing, one is implicitly talking about the supply of dollars and the supply of yen. While a certain supply exists in calendar time at this moment, nothing predetermines the supply of either currency going forward. Both of those variables might move in a way that markets can't predict. So the arbitrage theory—

CHAIRMAN GREENSPAN. I acknowledge that the markets can't predict; that's the problem. But unless somebody insists that this issue is important to the decision we have to

make today, [laughter] I think you and I should go in the corner of the room later and argue this out with each other.

MS. JOHNSON. Wise suggestion.

CHAIRMAN GREENSPAN. That's all I have. Does anybody else want to ask a question?

MR. MCTEER. If one thinks of the Japanese authorities as speculators, it's generally assumed that if speculation is stabilizing it's profitable. If it's not profitable, it's destabilizing. Do we know anything about how much money the Japanese have earned or lost on these interventions?

MR. KOS. In a recent paper, Professor Ito calculated that the Japanese actually have made significant profits because of the carry—the interest rate spread between the cost of financing, which has been essentially zero in the last few years, and what they've earned on their treasuries. So there has been a significant profit. Exchange rates have fluctuated, and the Japanese have been buying at different rates. But on the whole apparently the intervention has been quite profitable for them.

CHAIRMAN GREENSPAN. Anybody else?

MR. POOLE. Is there any regular pattern or expected pattern in Japan as to what fraction of the intervention is sterilized?

MR. KOS. The way that the MOF finances its intervention is that it issues financing bills, which in the first instance are underwritten by the Bank of Japan. Subsequently, some number of weeks later, the MOF sells new financing bills to the market, and then it can refinance and repay the Bank of Japan. So the one-to-one yen relationship that one would typically see when a central bank is intervening, we really don't see because of the secondary route, which

then gets unwound. Now, when I spoke to people at the Bank of Japan about this issue, they didn't see what the fuss was about. Their view is that the MOF is doing its thing, we're doing our thing, and we don't think of it in terms of sterilizing foreign exchange intervention. They're looking at it in terms of targeting current account balances—full stop.

MR. POOLE. So essentially the mechanism involves full sterilization of the exchange market intervention except for this period of a few weeks? The way you described it, that's how it sounded to me.

MR. KOS. Yes, but what I'm describing is the mechanism involved and what the people at the Bank of Japan have said to me.

MR. POOLE. Okay.

MR. KOS. I'm confident in saying that this is not unsterilized intervention. I think that's as far as I want to go. Whether it's something in between—a little of this and a little of that—I'm not so sure about that.

MR. POOLE. Thank you.

MR. FERGUSON. Could I move us from Japan to the subject of page 2, where you gave an impression of some concern about what I'd call financial stability? You commented about a lack of fear with regard to the dramatic drop in corporate debt spreads. I would say that what you were pointing out is certainly factual and correct in the fixed-income markets. In the equity markets, however, the risk premium seems to be quite consistent with what it was before the run-up in the '90s. We had a bit of discussion about that yesterday with the staff here. So I do wonder if you're right to talk about the lack of fear in fixed-income markets or if that is simply a reflection of the fact that interest rates globally are relatively low. Could it be that what we're

seeing is what one naturally would expect to see in a low interest rate, low inflation environment?

MR. KOS. I think you make a good point that spread relationships in a low interest rate market might be somewhat different from those in a high interest rate environment. Again, I don't want to overstate what is depicted here on page 2. I thought it was somewhat noteworthy that we were seeing some interesting levels that we hadn't seen in a while. As for the equity volatility, I would take your point that these kinds of volatility numbers were not unusual in the early 1990s. So I would agree with that. They are low, however, compared with the late 1990s and early 2000s. On the fixed-income side, it's not a question of fear but that in some quarters at least I think there's a degree of discomfort with the level of the spread relationships, especially on emerging-market debt.

MR. REINHART. Governor Ferguson, may I just add an observation? It is a low inflation, low interest rate environment. It's also one of an improving U.S. economy.

MR. FERGUSON. Right.

MR. REINHART. So for domestic assets it may very well be the case that investors are thinking that recovery rates in the event of default may be better and the default risk itself may be lower. Spreads could be narrowing independently of investors' aversion to risk because their perception of the risk has gone down.

MR. FERGUSON. Good, thank you.

CHAIRMAN GREENSPAN. If there are no further questions, would somebody like to move to ratify the domestic open market operations?

MR. FERGUSON. I'll move to ratify the domestic open market operations.

CHAIRMAN GREENSPAN. Without objection. We turn now to Dave Stockton and Karen Johnson.

MR. STOCKTON. Thank you, Mr. Chairman. Karen and I will attempt to be brief this morning. We suspect that this may be an occasion where *we* may have an easier time explaining our economic outlook to *you* than *you* will have figuring out how to explain your economic outlook to *others*. As a consequence, we intend to yield back the balance of our time to Vincent Reinhart.

In a nutshell, things have been going very well for the U.S. economy in recent weeks. The data have been coming in almost uniformly stronger than we had expected six weeks ago. The latest piece of news fitting that pattern was this morning's release of the September report on new orders and shipments of nondefense capital goods. New orders outside of aircraft were up nearly 4 percent last month, after having been about flat in August. Shipments of nondefense capital goods excluding aircraft were up 2.5 percent in September, more than reversing the decline in August. The figures are a bit stronger than we had expected and would probably lead us to add about 1 percentage point to the projected growth of equipment spending in both the third and the fourth quarters, bringing the increases to 13 percent and 12 percent, respectively. However, the report also showed manufacturers' durable inventories liquidating even faster than we expected.

On balance, the data that we have received since the close of the Greenbook would leave unaltered our estimate of the increase in real GDP in the third quarter of 6¼ percent at an annual rate, a figure nearly 2 percentage points above that in the September Greenbook. All of that upward revision reflects stronger readings on final sales, with notable positive innovations in consumption, housing, government outlays, and net exports. No doubt, some of the burst in spending last quarter was simply borrowed from the future. Most notable in that regard, we are interpreting some of the unexplained strength in consumption as reflecting a more rapid response than we had anticipated to this summer's reduction in personal income taxes. As a consequence, we lowered our projected increase in real PCE in the fourth quarter to offset some of the third-quarter surprise.

But in other areas, the data appear to be signaling greater underlying strength in demand. Housing stands out as the most prominent example. Starts, permits, and sales have all been phenomenal of late. As a consequence, we marked up our forecast of residential investment across the projection period. Yesterday's release on sales of new and existing homes for September certainly supports that decision. New home sales maintained their recent robust pace of about 1.15 million units; and existing sales clocked in at 6.7 million units, establishing yet another record for the series.

Netting areas of payback against those of greater momentum, we revised down the projected increase in real GDP in the fourth quarter by ¼ percentage point to just under 4½ percent. Needless to say, that is only a small offset to the sizable third-

quarter surprise. This morning's orders figures suggest that we may be undoing even that small downward revision. When coupled with some slight further upward revision to growth in 2004 and 2005—largely reflecting the weaker exchange value of the dollar in this forecast—these revisions imply a level of real GDP about ½ percent above that in the September Greenbook throughout the projection period.

That said, I see the changes that we have made to this projection as largely being ones of degree. The basic forces that we had earlier expected to be at work in the economy now appear to be showing through in the data. Low interest rates and a surge of disposable income generated by tax cuts have provided a powerful stimulus to household spending, especially on durable goods and housing. Moreover, low interest rates, together with a waning aversion to risk, sharp gains in corporate profitability, rising sales, and the partial-expensing tax provisions appear to be creating a considerably more hospitable climate for business investment. While the pattern has been choppy, outlays for defense have also been providing a sizable boost to activity in recent months.

Perhaps even more encouraging, some of the areas that gave us, and probably many of you, greatest pause about our forecast in mid-September have shown some tentative signs of improvement in recent weeks. Industrial production has firmed a bit of late, with notable strength in the production of high-tech goods, especially computers and semiconductors. The national and regional purchasing managers' indexes suggest that further increases are in train this month. There are also signs of a nascent recovery in labor markets. Private payrolls expanded by 72,000 in September, and the July and August figures were revised to show smaller declines. Initial claims have been averaging close to 390,000 this month, and insured unemployment has moved lower—suggesting that layoffs may have abated some and that hiring may be turning the corner.

Could the surprising strength of such a broad array of economic indicators be signaling the start of an even more vigorous expansion than we are projecting? The answer, of course, is “yes.” Much of the strength in private spending has been in interest-sensitive areas such as autos, other consumer durables, housing, and capital equipment. It is certainly conceivable that we are underestimating the potency of zero real interest rates. The recent weakening of the dollar might be another indication that the current stance of policy is delivering greater stimulus to activity than we have been projecting. Another explanation for the recent pickup in activity could be that business caution is in the process of fading. As you know, we expect the unusual restraint on business spending and hiring to have largely dissipated by the middle of next year. If business sentiment were to improve more rapidly than we are anticipating, the accompanying step-up in the pace of hiring, capital spending, and inventory investment could make the next few quarters look a lot more like a normal business cycle recovery than we currently expect.

I must admit that, in preparing this briefing, I was struck by how often I was struggling to find synonyms for strength. Over the past three years, I had developed a

reasonably complete list of substitutes for weakness. But lest you fear that we have fallen prey to the sin of conviction concerning our forecast of sustained expansion, let me assure you that we remain capable of conjuring dark thoughts about the outlook. Indeed, there are still some very palpable downside risks to our forecast.

For one, neither we nor anyone else should have much confidence in an ability to parse out the effects of this summer's drop in personal tax rates and the issuance of rebate checks on the time profile of consumer spending. Our calculations rely more on judicious assumption than on hard empirical evidence, so the uncertainty surrounding these estimates is large. Maybe the recent strength in consumer spending has been mainly the consequence of the tax cuts and, because we have experienced little or no growth in labor income, spending will shortly peter out. Some circumstantial evidence could be seen as supporting this hypothesis. Chain store sales—an admittedly poor predictor of broader consumer spending—have dropped back in recent weeks after popping up this summer, and the reports that we hear from the automakers are that sales have dropped from spectacular to merely good in recent weeks.

It is also possible that some of the strength in business spending will prove to be transitory. Before the war began in March, one of the explanations for the so-called soft patch was that, given the enormous uncertainties, businesses were putting capital spending projects on hold. Maybe the noticeable upturn in orders since the spring is a temporary bulge that reflects the implementation of those previously deferred decisions rather than an acceleration in the underlying demand for capital equipment. Such a possibility might square with the limited and guarded guidance that companies have provided for revenues and profits going forward, despite the spectacular gains many have experienced recently.

There are also ample reasons to discount the available signs of improvement in the labor market. We have seen similar periods of false hope over the past couple of years. Private payrolls improved a year ago, only to fall back most of this year. Moreover, both initial claims and insured unemployment dropped to levels comparable to those we are currently observing on three other occasions during the past three years. Obviously, none of those occurrences ultimately proved a precursor to sustained expansion.

False positives were not just a feature of the labor market data. The purchasing managers' indexes showed improvement similar to that seen recently in early 2002, and industrial production posted a brief period of increase in the middle of that year. With investors apparently pricing in substantial odds that a more vigorous expansion is under way, any perceptible disappointment on that front could feed back negatively through financial markets onto the real economy. That would put at risk our forecast that output will grow rapidly enough to make a dent in the current margin of underutilized capacity.

We have taken some comfort from the greater synchronicity of the positive signals in the current episode relative to those earlier false starts. Moreover, unlike 2002, the pickup in activity to date has been driven by a strengthening of private final demands, which are now increasing more rapidly than at any time since the late 1990s. Still, we will need to see more evidence before we can confidently confirm the sustained above-trend expansion that we have been predicting.

In contrast to the many surprises in the spending and production data, price developments have been unfolding pretty much as we had expected. We continue to believe that the economy has the capacity to grow rapidly over the next two years without putting upward pressure on inflation. Slack in resource utilization diminishes only slowly in our forecast, with the unemployment rate expected to decline to 5½ percent by the end of 2004 and to 5 percent by the end of 2005. Likewise, manufacturing capacity utilization rises from its current level of around 73 percent to only 78 percent at the close of 2004 and just above 80 percent by the end of 2005. In short, available capacity combined with continued strong gains in structural labor productivity should keep a lid on cost pressures. Meanwhile, there have been few signs that inflation expectations have deteriorated in any material manner, and given our benign outlook for prices, we think the odds are low that expectations will become unglued over the next two years. However, as we noted in yesterday's Board presentation, the confidence band around our forecast for core inflation is quite wide. And the uncertainty surrounding that forecast has more to do with unaccounted-for shocks than it does with our uncertainty about the strength or weakness of the economy over the next two years. Those results imply both that we will almost surely be wrong and that we probably won't be able to offer you with any confidence good explanations as to why. Karen Johnson will now continue our presentation.

MS. JOHNSON. As we reported in the Greenbook, the information about economic activity abroad that we have received since the September FOMC meeting has confirmed our view that foreign real GDP growth has rebounded from the weak pace of the first half of the year. Based on various indicators from a variety of countries plus the more robust estimate for U.S. third-quarter growth than had been projected in September, we have revised up our best guess of average real growth abroad last quarter to 3½ percent from the 3 percent we had projected.

The upward revision to the GDP growth figure for the third quarter is due in part to a recovery in some previously strong countries that were weak earlier in the year for transitory reasons. The primary explanation for this outcome is the SARS epidemic, and the countries in question are China and other emerging-market Asian economies. But we have also revised up forecasts for countries such as the United Kingdom, where the most recent evidence suggests a stronger pace to real activity than we had expected.

Looking ahead for 2004 and 2005, we see continued average growth abroad at about the current pace as most likely, similar to our September outlook although we have fiddled a bit with the projections for individual countries. Sustained growth at

3½ percent would be a welcome improvement in foreign economic performance, and it would go some way to closing the relative growth differential between the United States and its trading partners. Our baseline projection calls for that gap to narrow from over 1½ percentage points this year to about ½ percentage point in 2005. Such an outcome would lessen the sense that the global economy is overly dependent on the engine of U.S. growth, although I hasten to add that a surprising shortfall of U.S. growth from that projected in our baseline would have negative implications for growth abroad as well.

Among the foreign industrial countries, we expect that Canada and the United Kingdom will continue to record the most successful performance. Domestic demand within those economies continues to be strong, and financial markets as well as we are now expecting the Bank of England to begin raising its policy rate soon in response. In our baseline forecast, growth in the euro area firms over the next year and achieves a pace of about 2½ percent in 2005. In contrast, we are a bit skeptical of the signs of recovery in the Japanese economy and have written down positive, but still low, real GDP growth going forward for that country. All in all, the picture for the industrial countries is one in which the expansion remains somewhat uneven but is shared by all the major countries.

For the developing countries, the projected improvement in growth over the forecast period is more dramatic, as both the Asian and Latin American countries recover from various idiosyncratic problems this year to achieve significantly more vigorous growth next year. We anticipate that China will continue to outperform all other countries with respect to reported real GDP growth, although we expect the rate to moderate a bit by 2005. Elsewhere in Asia, strength in the global high-tech sector should provide support for rapid output growth of production that in turn will underpin incomes and domestic demand. In Mexico, sustained expansion of output depends upon a rebound in U.S. manufacturing that in turn stimulates Mexican manufacturing. In general, we see dispersion of real output growth lessening across the developing countries as global recovery becomes more firmly established in 2004 and 2005.

Our projection that growth rates will return toward trends in most countries results in part from our sense of the normal working of macroeconomic forces and in part from our natural reluctance to project any major new shocks to the global economy. We do believe, however, that we can detect in current data the basis for such an optimistic outlook.

One shock that might be of particular interest and relevance is a more substantial decline in the value of the dollar than we have incorporated into the baseline. Such a development might seem a possibility in light of the nearly 5 percent drop in the nominal value of the dollar in terms of the other major currencies that we have experienced during the intermeeting period. In addition, the continued widening of U.S. trade and current account deficits, even as foreign growth recovers, might heighten concerns on the part of global investors about taking on increasing amounts

of exposure to U.S. assets. Accordingly, we included in the Greenbook an alternative simulation in which the real exchange value of the dollar declines an additional 20 percent by the end of next year. This alternative continues to assume that China and Malaysia peg to the dollar but posits a one-time revaluation in that peg so that these countries share in the adjustment to a weaker dollar. Foreign monetary authorities other than those pegging are assumed to implement policies according to a Taylor rule, so that they do take steps to mitigate the consequences of exchange rate appreciation for their domestic macroeconomic performance. However, with the exchange rate shock phased in and the usual lags in monetary policy effectiveness, such policy responses cannot prevent significant effects on real GDP growth and inflation abroad. As reported in the Greenbook, the implications in the staff model of this large and rapid decline in the dollar for U.S. real GDP growth are plus $\frac{3}{4}$ percentage point in 2004 and $1\frac{1}{2}$ percentage points in 2005. Core PCE inflation is increased about 1 percentage point.

For foreign economies, our model predicts the greatest decline in growth by year-end 2005 in Canada because of its dependence on exports to the United States. However, in the near term, the largest negative impacts fall on Mexico and the developing countries of Asia. These economies are also quite open and trade-dependent. In the simulation, the largest reductions in inflation also occur in Canada, Mexico, and developing Asia. In response, the Taylor rule calls for very large reductions in short-term interest rates by their respective officials. Under our assumption that the shocks to exchange rates are comparable across all of these trading partners, the negative consequences for growth in the euro area and the United Kingdom are relatively mild and slow to develop. For Japan, the option to ease rates in response to further appreciation is not available and so the consequences for real growth are somewhat larger than in the euro area but less than in the other regions. This particular simulation suggests that significant and broadly felt dollar depreciation would have its greatest effects on output in two of the regions of the global economy where performance is now strongest, Canada and emerging Asia. Further into the future, in response to monetary stimulus, those economies should see domestic demand offset the loss in external demand. With J-curve effects actually increasing the nominal value of U.S. imports following declines in the dollar, our trade and current account balances initially worsen and then subsequently begin to adjust. By the second half of 2005, the U.S. trade deficit would begin to narrow. That completes our prepared remarks. David and I will be happy to answer your questions.

CHAIRMAN GREENSPAN. David, I see you don't have an estimate for real adjusted durable goods for September yet. Do you have a sense of the order of magnitude? The reason I raise the issue is that the extraordinary difference between total durable goods and real adjusted durable goods for the month of August—

MR. STOCKTON. We should be able to have that calculation, I would imagine, by the coffee break or shortly after the break.

CHAIRMAN GREENSPAN. I've found it to be a very useful statistic over the years, and I'd like to get a sense of it. President Hoenig.

MR. HOENIG. David, looking at 2004, your estimates for consumption are strikingly strong. It would be great if the figures came out that way. But you estimate consumption to be as strong as it was in the late '90s. You touched on your reasoning, but could you again give me your rationale for that? I ask because your forecast is an outlier; it's at the upper limit of the range of forecasts.

MR. STOCKTON. There are really three principal reasons that we show as much strength as we do in consumption for 2004. The most important is that we're expecting a very significant improvement to occur in the labor market. As has been noted a few times around this table, our forecast is that job gains are going to be running 350,000 plus a month in 2004. That is going to be creating a sizable acceleration in labor and—to the extent that there has been any precautionary saving motive for the last two years—acting to restrain consumption less. Second, we still get additional disposable income from the enacted tax cuts so that more disposable income is being delivered by fiscal policy as we move into 2004. Finally, the wealth effects, which have been a significant drag on spending over the last two years, are turning from big negatives to neutral. For us that is the principal reason we're showing a step-up in real PCE next year. On an annual average basis we still have the saving rate rising a bit, from 3¼ percent in 2003 to 3¾ percent in 2004. We see some reasonable risks around that forecast. But to the extent that you have doubts about any of those three elements in the forecast, I think you would have concerns about our consumption forecast as well.

MR. HOENIG. Well, I question only the third reason relating to the wealth effects. When we had these kinds of growth rates in PCE previously, the wealth effects were much more positive. So in my view the wealth effects returning to neutral—while granted they are no longer a drag—won't produce quite the boost that might be expected. I do agree with you on the labor market, however; I certainly see that improving as we move forward. But the consumption forecast seems a little strong to me.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I had a question for David. In comparing the consensus forecast to the Greenbook forecast, the Blue Chip forecast is much higher on inflation than you are and in fact than we are in Chicago. The Blue Chip has a much higher expected path for the nominal fed funds rate, too. First of all, why do you think it is that the Blue Chip forecast is higher on inflation than we are? Second, you put two alternative scenarios into the Greenbook—one with rising inflation expectations and one with the market-based funds path. When I look at these two scenarios, intuitively I want to add them together or look at them at the same time. I was wondering if there was some interaction here that I should be thinking of when I look at those two scenarios.

MR. STOCKTON. On your last point I think roughly speaking these scenarios are additive. For most intents and purposes the model is reasonably linear, so I think you could probably perform the analysis that way. As for your first question, I've been puzzled by the consensus inflation forecast as well, especially when our forecast is predicated on energy prices declining significantly over next year—in line with current expectations in the futures market for oil. So if the energy price assumptions in the consensus forecast are based on those futures prices, that forecast must have a rather sharp acceleration in underlying inflation. One

possibility, of course, is that the Blue Chip forecasters put a great deal more emphasis on speed effects—or the change in the unemployment rate—whereas we are still relying on the level of slack in both labor markets and product markets to be a restraint on overall inflation. We think the evidence supports that gap type effect. But as we discussed a little over a year ago in the special presentation to the FOMC, the Phillips curve has gotten flat enough that we don't derive a great deal of traction in our inflation forecast from movements in the resource and output gaps.

So I think one possibility is that there will be some deterioration in inflation expectations if we get as much growth as we're projecting and policy remains unchanged. That's why we included that inflation expectations scenario because it seemed to us the most plausible way, other than just through noise, that we could get significantly higher core inflation next year. On the other side of that, though, we see downside risks, with the level of the price markup over unit labor costs—and its mirror image in the profit share—having recovered quite strongly. If these competitive pressures were to operate to bring that back down closer to historical average levels, we see downside risks associated with this forecast as well. So I think we're comfortable with our forecast. But as I noted, those confidence intervals that we showed at yesterday's Board presentation suggest that nobody should hold a view on that with strong conviction.

MR. MOSKOW. Thank you.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. My question is related to that of President Moskow. At the end of the forecast period, when the output gap in the baseline is close to zero and inflation is close to 1 percent, a neutral nominal federal funds rate would be around 3½ percent, which is about where financial markets actually expect it to be. Isn't that a more reasonable baseline assumption than that of the Greenbook?

MR. STOCKTON. I guess I'm forced to say "no"! [Laughter] We still think that in essence the equilibrium real funds rate is going to be below its historical average by the end of 2005. One reason is that the level of the dollar is still relatively high despite the fact that it has come down. Second, the investment share in GDP is still quite low relative to its historical average. Now, as we look further beyond the end of 2005, we do think it would be reasonable to expect a return of the equilibrium real funds rate back to its historical average of 2½ percent or so; we think that's the direction you'll be headed toward at that point. But we don't see that process as occurring so rapidly that the market's expectation is the one that we want to buy into for the end of 2005. That might be the case looking down a couple more years, but not in 2005.

In part there's another factor that boosts the equilibrium rate further down the road but that in the intermediate term is providing us with the capacity for noninflationary growth, and that is that we're expecting a further acceleration in potential output growth sometime beyond 2005. As the improvement in investment that we're forecasting occurs, it lifts potential capital services and provides a bit more space for the economy to grow. Again, in the long run that obviously is a factor why interest rates would need to be somewhat higher. But over the intermediate period it allows rates to be somewhat lower.

MR. PARRY. It would seem to me that perhaps one reason the financial markets might have higher expectations with regard to inflation is that they're looking at different models. Those models could have expectational effects that would be quite pronounced if our exogenous assumptions about interest rates were to be incorporated.

MR. STOCKTON. That's a risk that I think we tried to highlight here. Obviously that is very difficult for us to forecast. We don't view that as the most likely outcome in part because, with energy prices declining rapidly, headline inflation actually is going to be quite low. I don't

think that's a situation in which we'd anticipate that inflation expectations would likely be building up much of a head of steam.

MR. PARRY. Thank you.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Dave, I have a couple of questions related to the labor market and other variables. For quite some time you've forecast a very strong improvement in employment beginning relatively early next year and extending through 2005. I assume at the end of the day that it must be intuition rather than a purely model-based result. Do you have any anecdotes or other information that would give me greater confidence than I have at the moment that something like that result is likely? Of course, it's accompanied by well below trend growth in structural productivity for that whole period.

MR. STOCKTON. I think that is where the rubber meets the road. In fact, we are following our models quite closely here, but the underlying assumption is that structural labor productivity is growing $2\frac{3}{4}$ percent. If we're wrong and it is considerably higher, then the first-round effects would be that the economy will be able to grow faster with less employment going forward. If we're not going to get that slowdown in productivity, we're not going to get the boost to labor growth associated with that. That would mean on the other side of the income statement that profits would be higher as well. We'd probably figure that would net out to a slightly weaker economy, given that the marginal propensity to consume out of labor income is somewhat higher than that stemming from capital income. So, if we got a shift in an adverse direction for labor next year, that would probably tend to weaken our overall outlook.

Now, as you know, in the last forecast round we revised up further our estimates of structural productivity. We didn't do that this time. We're just weeks away from a

comprehensive revision to the national income accounts that is going to change the last five years of history—and maybe in significant ways. Our thought was, Let's wait to see what happens in the comprehensive revision and then try to put it all together. We got the hours revision this summer, and we'll be getting the output revision shortly.

MR. STERN. Well, let me pursue this one step further. Obviously, we can get this path of real GDP growth with almost any combination of hours and productivity growth. If we got employment gains of, say, 200,000 to 250,000 a month rather than 300,000 to 340,000 a month going forward and the difference was made up by productivity, to what extent would that mix give you a different inflation forecast? I don't know the interworkings of your model that well, but I assume it would give you even lower inflation in a more or less base case environment than the scenario you presented.

MR. STOCKTON. It would indeed. It would give that lower inflation through its effects on the aggregate amount of slack. There would be less employment and, therefore, a greater amount of slack in the labor market. If it were also a reflection of an underlying improvement in structural labor productivity growth that was greater than we thought, that too would be relieving cost pressures even more than we are currently estimating.

MR. STERN. It would give us deflation?

MR. STOCKTON. As we showed yesterday, inflation is so slightly above our estimate of measurement bias there, it wouldn't take much to do that. Now, on the anecdotal side, as I've indicated, we've seen a few tentative signs that some improvement may be under way. This is the first time we've revised up our employment—

MR. STERN. Well, I think some improvement is under way. I question whether it's going to reach the magnitudes you have projected in the Greenbook.

MR. STOCKTON. One change we did make was to trim some of the strength we had in first-quarter employment because we didn't see enough in the forward-looking indicators to provide us with confidence on that. We trimmed some in Q1 and have stronger employment growth for the remainder of next year. It's a forecast.

MR. STERN. Okay.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I had the same question about the degree of difference between this forecast and ones we see from major outside forecasters. At our Bank we usually construct a little chart that plots the Greenbook forecast relative to other forecasts. We have the respective forecasts for real GDP on the x axis and the change in the CPI or some other measure of inflation on the y axis. Normally, the Greenbook is somewhere in the middle, but now it is clearly an outlier for any quarter one looks at. It's in the bottom right-hand quadrant, with high GDP growth and very low rates of inflation. If we do a similar comparison with respect to changes in the fed funds rate, we see very big differences as well. That's also true if one goes deeper into the forecast details and looks at what outsiders think the gap is versus what the staff believes. Even forecasts that have a higher gap—through 2004 anyway—still show rising rates of inflation and rising fed funds rates. So it seems that the construct you are using is really different from the vast majority of other forecasters. That could mean that you're right. But it also puts us in the unusual position of being the optimistic central bank.

MR. STOCKTON. At least the optimistic staff of the central bank! [Laughter] I leave it to you to decide how optimistic you wish to be. You're right—our forecast is an outlier. We really struggled with that in the sense that if we were to be less optimistic about the aggregate supply side of our projection, we would be showing even greater employment growth than we

already are showing. I think we'd have a hard time explaining how the level of productivity had gotten quite so high. We already have it substantially above our estimate of structural productivity growth. Our interpretation of the strong employment gains that we're showing is that a lot of what we've seen has been cyclical. So we're getting pulled in both these directions on the productivity side. The productivity and the employment data would tend to make us want to be more optimistic. If we were more optimistic, we'd be showing even lower inflation than we're showing, and that would push us further away from the consensus in that direction.

MS. MINEHAN. The other question I wanted to raise relates to a statement by one contact—one of what seems like a zillion I've talked with over the last four or five weeks—who likened the uptick in consumption over the summer to a sugar high associated with the greater fiscal stimulus. We're a little more downbeat in New England than nearly everybody else, as everyone could see from the Beige Book, and maybe that's just a reflection of our environment. I don't know. You did mention, however, a few things that seemed to be coming in a bit on the weaker side in September and early October. I must say that, in talking with the people from First Call, while the profit numbers have been exceeding analysts' expectations, there seem to be a number of warnings that it is not going to continue and some concerns expressed about that. Maybe you could elaborate on this, though you talked about it a little in your presentation.

MR. STOCKTON. I think that's clearly a downside risk. Again, our forecast is predicated on the notion that the spending pattern this summer wasn't fully a sugar high related to the fiscal stimulus. We believe that the overall environment for consumer spending—with some improvement in balance sheets, some step-up in sentiment since the spring, and low interest rates—is providing support to consumption. We couldn't see attributing all of the higher spending just to the tax effect. But to the extent that one might be looking at the high-frequency

indicators, I think the recent readings would give one at least a little concern about our forecast that consumption will remain as strong as we have projected. Now, our PCE forecast drops off to less than 2 percent in the fourth quarter, so we have assumed that there's going to be some payback—part of it related to motor vehicles—for a lot of the strength that we saw earlier. Here again we were balancing the possibility that the data may be signaling greater underlying momentum than we are allowing for versus the possibility that more of this has just been a temporary pulling forward of purchases. Whether we got that balance right or not, I don't know. As I indicated, trying to pin down the tax effects is mostly guesswork. We really don't have very much in the way of hard empirical evidence to base those calculations on. So to me that says that the uncertainty about consumption for the next few months is especially large. The confidence interval is always wide, but I think in this period it's even wider than usual because we have to contend with trying to interpret something about which there is a great deal of uncertainty.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Dave, on the monetary aggregates—both M2 and MZM show no net growth over the last three months, and bank credit has actually declined a bit. Is there a story or anything interesting behind those observations?

MR. STOCKTON. I'll let Vincent speak to the monetary aggregates, but in terms of short-term borrowing, businesses did a whole lot of borrowing in the second quarter in the environment of very low interest rates. They built up their liquid assets and solidified their balance sheets quite significantly. Corporate cash flow and internal funds have been going gangbusters recently, and it is still the case with respect to demands for short-term credit—for example, inventory investment—that firms are continuing to liquidate inventories. So we put

those things together and we're not reading from the recent drop-off in business borrowing a signal of impending weakness. I don't know, Vincent, if you have any words you want to say about this.

MR. REINHART. With regard to C&I loans, I would note that in the latest Senior Loan Officer Opinion Survey, banks reported that demand had been weak over the last three months. That is consistent with declining inventories, although the answers to more forward-looking questions provided a little glimmer of hope in that regard. As for the monetary aggregates, we believe that the slowdown in mortgage refinancing has pulled down liquid deposits to a considerable degree. We suspect that it actually pulled down M2 growth in particular—more so than we'd previously been allowing for using our rules of thumb—and we were working in that direction. Depending on the assumptions one makes with regard to timing—in terms of how long the deposits sit there—much of the slowdown could be accounted for by refinancing effects.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I, too, was struggling with the staff's inflation forecast and had noticed what Cathy Minehan talked about in connection with the Greenbook relative to other forecasts. It started me thinking about what I'll call the integrity of our forecasting processes in a changing environment. We know our model has long adjustment and distributed lags to policy, and we're estimating the relevant variables over a period of time when we haven't had as stimulative a monetary policy as we have now. I wonder whether or not others are adjusting their forecasts to react to that and whether our inability, or our unwillingness, to do so is leading us to a result that looks the way it does, as we've discussed at this table. In essence, I'm a little concerned that this may involve a regime change in the Lucas sense and each of the forecasting

models is trying to play with how to adjust to the data in their forecasts. Can you give me any comfort that these long lags are appropriately adjusted?

CHAIRMAN GREENSPAN. May I just add to that? You emphasized before that we're dealing with a linear model. How many observations do we have that indicate that, as the inflation rate moves down, the marginal changes in the gap are indeed linear? Or are we possibly looking at a situation in which the model works fine with an inflation rate over 2 percent and, indeed, is linear up to 11 percent or something like that but the number of observations we have below 2 percent is really quite small? I was curious whether or not you have any sense as to whether we're dealing with a different regime in the same sense as when a particle approaches the speed of light its characteristics change. Now, I scarcely want to draw that as an analogy to your model, but there are such regimes, and basically I suspect that a problem like that may be involved here.

MR. STOCKTON. I suggest that comparing the Board's bureaucracy to something that would move at the speed of light is pushing that analogy! [Laughter] First, I think you're obviously right. Any time you're using a model estimated with historical data to forecast a future period with events that are toward or outside the limit of what you've estimated your model on, you have to believe that there's going to be some wider confidence interval around that forecast. We have never been able to find, and we have looked for it, evidence of nonlinearity in the gap term or of what people used to call "goal line effects"—evidence that the influence of the gap might become smaller the closer we get to price stability. The data don't seem to support that very strongly.

The question that President Santomero has raised is certainly one that we have been concerned about because of the possibility that our model may not be able to pick up that kind of

regime shift. I think the alternative simulation that we did—where we let inflation expectations in a sense become unglued from what our model would expect—does try to highlight for you what we think the potential consequences of that risk would be. As I indicated, there are a couple of reasons why we don't view that as the best baseline expectation. One is that we think headline inflation is going to be quite well behaved when energy prices start to come down. That's certainly going to help. It's also the case that, if we're right at least in the first half of next year, let's say, markets are going to be able to see that, even though there's not going to be a change in monetary policy, you're also not throwing in the towel on containing inflation. Actual inflation will be coming in quite low, if our forecast is correct, so your behavior in fact will be consistent with expectations about your objectives. To a large degree that is the way we would provide some rationale for our baseline assumption. Obviously, if we get rapid growth and a string of unattractive inflation numbers, the risk would start to rise that people would wonder whether or not you were giving in on your inflation objective. We see that as a potential risk if market observers are looking at 5 percent GDP growth and employment is picking up and you don't do anything for a considerable period of time on the monetary policy front. On the other hand, they will be seeing core inflation figures, if we're right, that look very good and headline inflation figures that look extremely good. So they're not necessarily going to see a compelling requirement for you to have to adjust policy. They might, in fact, be quite comfortable with that outcome.

CHAIRMAN GREENSPAN. David, do you think that the revisions in the NIPA data could significantly alter our view about some of the key relationships we're now taking as being fitted with some robustness? The BEA doesn't have new data on the most recent periods, does it?

MR. STOCKTON. Well, I have a hard time imagining that the NIPA revisions are going to alter the output and inflation nexus fundamentally. The unemployment rate is not going to be affected at all by this, of course. The price figures, although they get revised, tend not to be revised dramatically or persistently enough for the relationships in our inflation equations to change. One area in which we could see changes big enough to affect underlying parameters in the model might be investment spending. For example, if there's a significant revision in software investment—we saw one the last time there was a NIPA revision—that could influence our thinking about what is happening with the long-run share of software investment relative to overall output. That in turn could affect our potential GDP forecast and our view of what investment spending is likely to be over the next few quarters. Similarly, if we get big revisions on the income side, that could alter the saving rate enough perhaps to change our view about the sensitivity of consumer spending and saving to wealth.

CHAIRMAN GREENSPAN. Isn't the latter the most likely problem because that figure is a residual and often has been revised far more substantially than the other elements of the system?

MR. STOCKTON. We've had very big revisions on the income side, some of them flowing through quite often into the saving rate. So I think that is a real possibility.

CHAIRMAN GREENSPAN. Further questions for our colleagues? If not, who would like to start off the Committee's discussion? President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Economic activity in the Seventh District continued to improve in September and October, although we still appear to be lagging national trends. Our business contacts, including those attending our recent advisory council meeting, are increasingly optimistic, though they're not breaking out the champagne just yet. Once again,

much of the region's strength derives from household spending. Home sales remain very robust, and retail sales picked up further in recent weeks. Retailers also are more optimistic about the holiday season. We're hearing mixed signals regarding inventories. Some retailers are concerned that they may lose sales unless they replenish inventories, but many are still cautious and say that they plan to keep their stocks lean.

As you know, light vehicle sales have softened since August but were still running above year-ago levels in September and October. Our Big Three contacts expect fourth-quarter light vehicle sales to be around 16¾ million units—that's above their estimate of just a few months ago—and they forecast similar sales for 2004. So to use David's terminology, the outlook for sales is somewhere between spectacular and really good. One of the Big Three firms has raised its fourth-quarter production plans a bit; roughly half the increase, however, is a catch-up from output lost during the August power blackout. Sales incentives are still very high, but they've leveled off.

Business spending also picked up modestly. Our contacts suggest that retailers are spending more on remodeling and renovating their stores this year than last year. Manufacturers report a more broad-based improvement in demand for capital goods, though much of the spending is still for repair, maintenance, and replacement of existing equipment. We'll see another strong Chicago Purchasing Managers' index when the data are released this Friday. The index moved up from 51.2 in September to 55 in October, marking the sixth consecutive month that it was above 50. Moreover, the employment component was also above 50 for the second time in three months. Obviously these numbers are confidential until Friday, when they are made public.

On the temporary help front, both of the large firms we speak to are now seeing strong growth in orders—beyond the typical seasonal pickup. Average hours per assignment in one firm are at a record high, and that company is seeing some forward-looking orders for the first time in many months. Both firms are now confident that a robust recovery in temporary help is under way and that we should start to see a pickup in permanent hiring soon. That said, most firms in our District remain cautious about hiring, but that is a long-running story. Employment in our District is down 4 percent since its peak, compared with a decline of 2 percent for the total economy.

Turning to the national outlook, the data received since our last meeting have been quite encouraging on balance, as we've discussed before. No doubt tax cuts explain most of the improvement in real disposable income last quarter, which in turn helped to produce the strong growth in consumer spending. But tax cuts are not the whole story. Underlying household demand appears solid. With business confidence improving, we should see some inventory rebuilding and further gains in capital spending. So output growth is likely to remain above potential until next year. This should finally translate into a meaningful recovery in labor markets. We hope that the pickup in temporary help is a sign that we're in the early stages of such a recovery. In the meantime, the odds are that core inflation will come down a bit further, but the chances of a really unwelcome disinflation are becoming more remote.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Thank you, Mr. Chairman. Recent economic growth in the Twelfth District appears to have kept up with the national pace. In fact, Nevada and Hawaii have grown quite rapidly with a boost from strong tourist trade. Arizona also has had relatively strong growth, though our contacts tell us that this comes in part at the expense of California.

Throughout the District our contacts have noted more cases of employees working longer hours and of plans to add positions in coming months. However, it is also clear that firms are continuing efforts to increase efficiency. Manufacturers in the District are reporting increases in orders. The demand for building materials in the Northwest has been growing. On the technology front, most IT producers are reporting improved business conditions. It is also encouraging that R&D spending by IT and biotech firms generally has held up relatively well in the downturn.

With business conditions firming, office vacancy rates edged down recently in San Francisco and Seattle, two areas that have been hit hard. The housing market in the District remains strong, especially in the Phoenix area. In California much attention is on how the governor-elect, Arnold Schwarzenegger, will deal with the state's fiscal situation. For example, the budget agreement worked out last August left the state with a structural budget shortfall of about \$8 billion for future fiscal years. Even more pressing, though, are the cracks forming in the state's budget agreement for the current fiscal year. In September the courts disallowed the sale of \$2 billion in pension bonds the state planned to use to make payments to its retirement fund. More recently, a suit was filed challenging the legality of a proposed bond sale of \$10.7 billion to pay off the short-term debt supporting current spending. Also thrown into the equation is the governor-elect's vow to reduce the car registration tax by \$4 billion—which, of course, would be a direct hit to state revenues. One plan put forth by the Schwarzenegger team to meet funding needs is to issue about \$20 billion in long-term general obligation bonds. This was not well received in Sacramento or by the rating agencies. The reality, though, is that without new debt of some kind the state will be in a cash flow crisis come next June.

Once again we've been pleasantly surprised by the recent data on the national economy. As a result, we, too, have raised our estimate of how fast the economy is likely to grow in the near term. We now expect real GDP to grow at a pace close to 5 percent in the second half of this year and in 2004, which is really not that different from the Greenbook forecast. However, we have a less accommodative path for monetary policy that is much closer to market expectations. Output is expected to grow noticeably faster than its potential rate next year and to continue to grow somewhat above potential the year after that, but the economy does not reach full employment until the second half of 2005. So inflation is expected to remain around current low levels. Although these low levels of inflation imply that disinflationary shocks could still impose substantial costs upon the economy, recent data suggest that the risks are not as large as before. In fact, recent developments such as the lower dollar have caused us to raise our inflation forecast slightly. To me this suggests that it may be time to consider modifying the risk-assessment statement to indicate that the risks to the inflation outlook are at least close to being balanced.

CHAIRMAN GREENSPAN. First Vice President Stewart.

MR. STEWART. By most measures the Second District economy appears to be on the rebound in absolute terms and particularly relative to the nation as whole. Private-sector employment has trended up in New Jersey but has held near its cyclical low in New York. Our Empire State manufacturing survey, which had been signaling steady growth in the second and third quarters, kicked into a higher gear in October, suggesting accelerating activity and even some pickup in employment. This is consistent with a recent upturn in jobs in hard-hit manufacturing areas of upstate New York such as Rochester. Housing markets in and around New York City sustained strong forward momentum in the third quarter, with brisk sales

activity, a diminishing inventory of homes for sale, and continued price appreciation. New construction has also remained robust. Reflecting a combination of general economic improvement and recent increases in tax rates, New York State, New York City, and New Jersey all reported a continued pickup in tax revenues in the third quarter.

On the national side, the upsurge in recent activity is clearly welcome. Production appears to be ramping up to catch up to household spending, and there are signs that capital spending is coming back to life. Business confidence is firming, with the pickup in growth and the pronounced turnaround in profits. The labor market looks a bit better. I don't think much should be made of the small increase in jobs last month. The figure for September was a little above zero after a string of numbers slightly below zero. Still, it was good to see, and there are indications of some follow-through: Unemployment claims have fallen a bit, business surveys are showing stronger hiring plans, and we are hearing about firms actively seeking workers.

Looking ahead, I believe that the recovery will be subdued and that inflation will remain under control for a considerable period. Businesses will continue to meet increased demand with an improved management model, which will limit the need for significantly more plant, inventory, or employees. Capacity will continue to grow rapidly in China and India, which will limit pricing power for U.S. producers. Business people are concerned about the long-term implications of our large fiscal deficit and the current account deficit. There's a general belief that we are living beyond our means in this country and that the price will be paid after the current stimulative boom runs its course. One facet of this concern is our global competitiveness. We have been able to move into higher-value activities in the past when manufacturing jobs moved offshore. But today we see that some developing countries have

large pools of well-educated and inexpensive workers that are beginning to challenge our position in areas such as technology.

My assumption is that the relationship between economic recovery and business decisionmaking is quite different now than it was historically. We first saw the change in the 1992 recovery, when employment gains were very late and moderate. I believe that in this recovery we will see businesses doing very well in terms of sales, profits, and cash flow but that it will not translate into the same level of hiring and plant expansion that we expected in the past. Instead it will show up in larger dividends and continued pressure for more productivity from existing people and equipment. Any new capacity expansion will be done offshore when possible. Given this outlook, I believe that monetary policy will be stable for quite some time, and in my view our statement should continue to communicate that message. Thank you.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Thank you, Mr. Chairman. You may have seen several weeks ago a *Wall Street Journal* article on the transportation industry. Given that several major transportation companies are located in the Eighth District, I thought I would comment on that industry. My FedEx contact said that he was not as bullish about the outlook as the view conveyed in the *Wall Street Journal* article. He said, in particular, that the higher-value business—the more expensive goods that are often shipped by air—does not seem to be coming back though the lower-value ground business is rebounding more quickly. He provided some data on the ground business that show fairly striking increases in growth. In the middle of this year, the ground business at FedEx was about 1 percent above year-ago levels, and it's now running in the neighborhood of 6 to 7 percent ahead of last year's figures. Moreover, my contact indicated that FedEx is expecting in the first half of 2004 year-over-year increases in the 10 percent range. He says he is much more

confident about growth than he has been for some time. It's not that the expected growth is all that high but that it seems a good bit more certain that a solid recovery is under way. He expects the growth in express business—air shipment only—to increase from the current 1 to 2 percent on a year-over-year basis to about 4 to 5 percent by next spring. So he anticipates a pickup in that segment of the business as well.

FedEx had a five-year expansion plan to double its ground capacity. UPS, of course, is the major company in that business, but FedEx has been catching up in recent years. FedEx officials had been discussing deferring some of that capacity increase but have now decided to proceed with their aggressive expansion plan. Business is continuing to shift from express to ground. That's a consequence of the push toward lower-cost shipments but also reflects the fact that the speed of ground delivery has improved. That is, the features of the ground network have been improved, and packages can be delivered more quickly than before. So in terms of speed, it's more competitive with the delivery schedules that have been available in air shipments for a long time. The weakest part of the business is in outbound express from the United States. FedEx continues to have a big imbalance of shipments, with much more volume coming in than going out. The firm sees the international situation as quite strong, especially in Asia including Japan. In fact, the situation in Japan is looking much better. Business is lagging in Latin America, however, and is hurting in Europe primarily because of slow growth in Germany. As for the labor situation, Fed Ex has very low—in fact record low—turnover in its employment force, particularly among lower-skilled workers, such as package handlers. The company sees no wage pressures in either the lower-skilled or the more-skilled levels of its staff. In the latter category, for example, a lot of pilots are available.

My UPS contact said that, for the first time in well over two years, they are seeing strong growth as they go into the fourth quarter, which of course is the big holiday season—growth that will exceed the expectations they had earlier in the year. He anticipates that the fourth quarter will be very, very strong. UPS reports that computer companies are increasing their shipments and that shipping for the mail order business is strong. My contact pointed out, however, that the UPS numbers are somewhat affected by the fact that shippers signed a lot of contracts in 1997 right after a strike, so as those contracts now roll over, UPS is picking up some of that business again. The company's numbers look a little stronger as a consequence. The cargo industry in general is very busy, partly because of military lifts to Iraq, but my contact indicated that the military business is not the whole story at all.

Let me turn to the trucking industry. My contact at J.B. Hunt said that from his perspective the *Wall Street Journal* article substantially overstated the strength in the transportation industry. My Hunt contact has not seen a major turnaround in any area of Hunt's business. The freight business is a little stronger than last year, registering an increase of about 3½ percent in volume. Their intermodal business—the piggyback or rail-truck combination—is much stronger now on a year-over-year-basis, but that reflects the fact that the West Coast ports were shut down a year ago. Moreover, based on what he knows about the situation among competitors, he sees no indication of a surge anywhere in the trucking industry. Some stories of tightness in that market might be coming along, however, as a consequence of the reduction in capacity. A lot of trucking companies have gone under, and drivers continue to be in tight supply. He noted also that, on January 4, new rules for drivers go into effect that increase the required rest periods or reduce the maximum number of hours of driving. He saw one calculation that these changes will require 84,000 new drivers nationally. Apparently there

aren't that many drivers around ready to be picked up. So if that number is correct, we might see at least some temporary disruption until some of us decide to seek a more lucrative occupation!

[Laughter] The old rules that are being changed, by the way, have been in place since 1939.

I might share an observation from a member of our board about a company named Kimball International. What I remember about Kimball is that it used to make pianos, but apparently it now manufactures high-end office furniture. He said that Kimball has experienced a surge in orders for office furniture in just the past four weeks. Orders were "picking up at a rapid pace" is the way he put it. I thought that was an interesting piece of information.

I recently talked with my Wal-Mart contact—at the end yesterday afternoon actually—and he said that September sales had been a little stronger than expected. Wal-Mart had been anticipating a year-over-year increase in same-store sales of 3 to 5 percent, and it came in at 5.6 percent. He pointed out, though, that the weather had been unusually good in September. He said that retailers often use weather as an excuse to explain low sales, but he was citing weather as the reason that Wal-Mart had a better performance than had been anticipated. September came in somewhat below August, however; but as I think I mentioned last time, August sales had been significantly stronger than anticipated because of the large volume of clearance goods.

For October, Wal-Mart had been expecting an increase of 3 to 5 percent in same-store sales, and to date—as of yesterday afternoon—sales for the month were up about 4.7 percent. He noted that two-thirds of the sales gain is coming from increased traffic rather than the average size of the sales ticket. My contact views that as just an indication that Wal-Mart is taking customers from its competitors. He continues to see evidence of significant liquidity pressures in the household sector. For example, a predominance of items in the shopping basket continues to be concentrated at the opening price point of various product lines. Moreover, the midmonth

paycheck cycle that I've talked about before is still evident and in fact is more pronounced than at any time in the last three to five years. People are shopping when they get their paychecks, and that's true even for purchases of food and pharmaceuticals. So Wal-Mart interprets its data as an indication that households remain liquidity constrained.

My contact believes that there has been some improvement but that it is "stalled" at an increase in growth of about 50 to 80 basis points. He does not see sales growth getting better and better week by week. There had been a pickup around the middle of the year or sometime in August, but he sees no ongoing signs of higher growth. He said that inventories are generally in pretty good shape. Some items are a bit understocked and some a bit overstocked; apparel particularly was a little on the high side. But inventories overall for Wal-Mart are close to desired levels. As for the outlook, compared with some other firms whose views he was aware of, he thought Wal-Mart was among the most optimistic and had the most solid commitment to continuing capital expansion. At a lot of other companies that he was familiar with, plans were on hold and there were no anticipated increases in capacity at all. The only capital spending occurring or in prospect was directed toward productivity improvement and not capacity expansion. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. Bill was talking about life in the trucking industry. There's a fine song that describes that. It says, "Peter built a truck for a man to drive. It's a pretty good livin' but it ain't no life." [Laughter]

It appears that the tide has turned somewhat in the Eleventh District. The tentative recovery, which was characterized by a few false starts, now seems to be a full-fledged expansion. In the third quarter, employment growth turned in its best performance in three years,

and job growth was broad-based with most industries stable or growing. Our help-wanted index also was up strongly in September, signaling a return to a hiring mode among some employers. Texas personal income growth, after lagging the nation for two years, surpassed the national rate of income growth during the first and second quarters of this year. The housing boom continues, with record sales; exports are growing again; the energy sector is benefiting from higher prices; and job losses in manufacturing are slowing down. The weakness of the Mexican peso and the pickup in U.S. industrial production are boosting the maquiladora outlook, and observers on the border say that help-wanted banners are hanging outside of maquiladora plants for the first time in three years. However, I must say that I attended a maquiladora convention in Mexico a couple of weeks ago, and the people in those companies are obsessed with China. As one fellow put it to me, he's mad at the United States for letting China get so far ahead!

Orders for goods to rebuild Iraq are coming in fairly strongly. A large fraction of our near-term production of plywood and oil field equipment is reportedly going toward satisfying the government's efforts to rebuild Iraq. To sum up, we haven't been this optimistic about the Eleventh District outlook in a long time. I must qualify that just a little though. I've had several breakfasts with CEOs in an effort to get their views, and they still are very hesitant to sound all that optimistic. They have some issues on their minds that temper their optimism. They worry a lot about the costs of health care and pension plans, and they couldn't emphasize enough that a lot of the expansion that will be coming along will occur in other countries rather than in the United States. That's something they're talking about doing themselves; it's not that somebody else is doing it.

Turning to the national economy, it's becoming increasingly apparent that the tide has turned as well. I concur with the broad outlines of the Greenbook forecast. Growth has

accelerated and likely will remain robust into 2005. The international outlook has improved considerably. I'm optimistic that inflationary pressures will remain subdued over the next year. Everybody mentions the remaining slack in the economy. I always want to add that the very rapid productivity growth that has accompanied that slack is a reason to be optimistic on inflation. I'm a little less confident about inflation as we get into 2005, however. As recently as last May and June many of us were publicly expressing our concerns about the potential for deflation. In that environment it made sense for us to commit to maintaining a very low fed funds rate for a "considerable period." As the tide shifts, the need for a clearly articulated exit strategy from that commitment is becoming increasingly important. Our immediate concern is to convey that at some point we will merely be taking our foot off the accelerator without that being interpreted as an indication that we're moving the foot over to the brake pedal. These dilemmas reinforce my belief that in our press releases less is more. Thank you.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. Economic conditions in New England have neither deteriorated nor improved very much since our last meeting, at least as far as we can tell. The intermeeting interval has been a rather busy period of regional outreach for us. In addition to the Beige Book survey, we've had meetings of our academic and small business councils. We've also had several bankers' forums, a gathering of local software executives, and a wide range of conversations with business leaders. There are clearly some positive notes in the reports from these contacts.

Chipmakers and storage equipment manufacturers are increasing production and even are hiring. Our UPS contact for the New England area sees an uptrend in the firm's domestic business. But on balance the overall tone is a bit flat or even downbeat from where it was in the

summer. Businesses are working hard to maintain margins and are looking forward to spending more and to hiring locally as well as outsourcing. But the point at which a majority will feel comfortable doing so doesn't seem to be here yet.

Regional employment levels declined in September, with a decrease compared with a year ago of around 1 percent, and that's a good deal more than the small, 0.3 percent, decline for the nation as a whole. Manufacturing has about 12 percent of overall jobs, but that sector represented about 50 percent of the job losses over the past twelve months, with the remainder primarily in the construction and the information technology industries.

As most of you have seen, our Beige Book contacts in manufacturing seemed a bit out of step with others in the nation in reporting flat or deteriorating demand. That was due in part to the fact that a few of our contacts were unavailable or much less communicative than usual given the proximity of Q3 earnings reports. Had the full group been reflected in our report, it likely would have noted flat or slightly rising demand and revenues but would have sounded a similar note of caution. Companies in the life sciences area have seen good growth in the third quarter, and defense department spending has proven beneficial to some other firms. But the region's largest manufacturers and a range of smaller industries do not expect much of a boost from the economy in coming quarters. Most have cut employment, plan to continue doing so, and are currently outsourcing production to foreign countries. Those expecting improvement in their businesses are depending on product innovation, increasing market share by acquisitions, and a continuing keen focus on cost control.

The region's small and medium-size banks remain in good shape financially, with good asset quality, strong capital ratios, and very little in the way of delinquencies or chargeoffs. Their major complaint involves a drop in refinancing business and very tight margins.

Residential real estate markets remain strong in the region, with robust demand, somewhat slower sales growth, and steady home construction. Depending on the bank and the area, small business borrowing is reported to be either flat or slowly improving, though many bankers note that the improvements they see mainly involve firms leaving larger companies or sometimes newly merged institutions. In those cases, the size of the larger institution has made it less willing to meet the demands of smaller businesses.

Software firms report some signs of growth, though there's a lot of variation in how companies are doing depending on their areas of specialization. Some—for example, those involved in portal applications, which enable easy use of data storage and multiple legacy systems—report record growth. Others involved in areas that were overbought in the '90s continue to see problems in terms of their revenues, though the latter are perhaps at a point of bottoming out. Tech firms report that access to capital markets is varied as well. Money is available in equity markets and from venture capitalists, but revenue prospects and stability have to be very solid. Cost control is seen as a critical element for these companies, and they find advantages in using overseas labor, particularly in India, China, and Russia. Reportedly the outsourced software work tends to be the more routine tasks, with higher-level jobs remaining in New England.

Finally, commercial real estate markets could be stabilizing a bit. CB Richard Ellis reports an increased number of tenants looking for space in the market. Indeed, we at the Bank have seen an increase in the number of calls about and walk-throughs of our available space. However, most of these prospective tenants have a number of properties to choose from. Indeed, regionwide the availability of office space increased a bit from the second to the third quarter,

and per-square-foot asking prices declined slightly. But overall the picture looks a little better than it did.

In sum, the recovery in the region seems to be muddling along. Things looked brighter earlier in the third quarter and a bit less so as September wore on. Employment is a real concern in the region. Consumer confidence about the present situation has softened, and business confidence has stayed barely positive. Hope for stronger growth remains, but there is a sense of underlying concern that real improvement is taking too long to materialize.

Turning to the nation, clearly the incoming data on the third quarter have been stronger than expected. Consumer and business spending has accelerated, driven in large part by the additions to disposable personal income from tax cuts and child tax credits and the availability of partial tax expensing for equipment. Profit margins overall appear to have held up well, at least in part because of favorable currency translations. Business spending on equipment and software began to accelerate, too, and likely will continue to grow, though at what pace it's hard to determine. Profit growth ought to lead to hiring as well; but that hasn't happened much yet, and labor markets remain soft. Financial markets have strengthened, and credit spreads have become more accommodative. Inventories have been drawn down, auguring well for some impetus to Q4 growth; and the declining dollar, assuming that the decline continues to be orderly, augurs favorably for some net export support in the current quarter as well. Moreover, the outlook isn't quite as gloomy on the external side, particularly in non-Japan Asia, the United Kingdom, and Canada. But the question remains as to whether the growth we are seeing is self-sustaining. The answer to that has to center on whether or not we will see job creation sufficient to begin to close the output gap.

We talked a lot before, and I won't go into it further, about the optimistic outlook in the Greenbook for GDP, unemployment, and inflation—at least relative to other forecasters. President Stern mentioned the job growth figures. The Greenbook is projecting an increase of 8 million jobs over 2004 and 2005. In a typical recovery that amount of job growth would occur over a four-year period rather than in two years. Normally we see a jump in job growth as the recovery begins; we haven't seen that this time. But in the Greenbook forecast, the job growth projected for 2004 and 2005 will make up the shortfall we've had in this jobless recovery and take about half the time. That's a lot of jobs in a short period of time. We in Boston don't see the same pace of GDP growth in 2004 that the Board staff projects. Our estimate is in the upper 3s, with a small downtick in unemployment and a flat price trend. There are upside risks—others have mentioned them—especially if we turn out to be more optimistic about the underlying inflation process than is warranted. In a way, seeing risks on both sides of the Greenbook forecast gives me a bit of reassurance, though I believe that the potential downside developments, if realized, would be a bit more costly and problematic—at least in terms of the initial effects—than those on the upside. For now I would advocate no change in our policy position, and I would hope as little change as possible in what we say about it. But I'll say more about communication later when, I assume, we will take up that subject separately.

CHAIRMAN GREENSPAN. Thank you. Let's break for coffee for ten to fifteen minutes.

[Coffee break]

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Last meeting I reported that economic activity in our Southeast region was showing tangible signs of forward momentum. That has

continued into October. The retail sector remains reasonably strong, with some reports of increased sales of high-end merchandise, and our contacts are optimistic about the holiday sales prospects. Single-family housing markets across our region have retained their strength, and vacancy rates in the multifamily sector have declined. Our commercial real estate markets have not yet turned around, though there were several interesting reports from our bankers about financing being sought for new projects. Our important hospitality and tourism sector has continued to improve, as hotel occupancy increased, restaurant business was generally good, and the number of European visitors in Florida rose because of an appreciating euro. Manufacturing remains mixed, though with growing signs of more stability. We hear more reports of spending to replace equipment. And somewhat different from Bill Poole's report, our trucking contacts indicate that there has been increased activity in recent weeks. The outlook for increases in hiring continues to be the most difficult to judge. Businesses are telling us that they remain reluctant to hire permanent workers, opting instead to use overtime or part-time and contract help. That said, overall employment in our District now appears to be growing at a moderate pace. Prices remain stable, although one of my directors in the utility business continues to encourage us to think through the implications of potentially higher natural gas prices over the winter and what that may mean for production costs.

Turning to the national outlook, the expansion appears to be on track. I would use the same words that others have in describing the most recent data as encouraging. The expansion seems to be getting stronger legs and appears to have more breadth. Productivity is strong. Capital spending is beginning to show traction in the construction, manufacturing, wholesale, and professional services sectors. The international outlook has been revised up in the last two

Greenbooks. Recent data even suggest that the heretofore disappointing jobs picture may be stabilizing or improving, although it's probably too soon to generalize there.

At the same time, we still are hearing expressions of caution from both large and small businesses, and a significant amount of restructuring and retrenchment is continuing in at least some industries. Inventory accumulation remains another question mark. Business inventories continue to run down, and I read the reports from a recent NFIB survey as suggesting that small businesses at least won't be adding to inventories quite yet. So the timing and the size of the expected inventory pickup is still not clear. Taken together, these developments on the national front, reinforced by the continuing improvements we're seeing in our region, give me growing confidence that a more broadly based expansion is now in process and is likely to continue.

I want to look ahead just a bit, and with considerable restraint, to the discussion on policy and communication since it's especially hard for me to sense how that discussion might be structured today. Although I think policy is calibrated about right as we try to nurture the developing expansion, I believe we need to be especially cautious today about how much we tinker with the wording of our announcement lest we interject new uncertainty and controversy about the future path of policy. There probably is room to modify our words at the margin—to convey growing confidence about the sustainability of the expansion and perhaps try to clarify or condition our currently unconditional commitment to maintain an accommodative policy for a considerable period. But the ideas left on the table from our discussion last month and the additional ideas that have been put forward since then lead me to strongly favor taking some time to think through the very complicated and important issues that have been raised. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, the Tenth District economy continues to improve, and our business contacts have become somewhat more optimistic about the outlook. Let me talk a little about the labor markets. They remain soft but are showing some signs of firming. According to some of the payroll data we've looked at, employment was flat for our District in September. However, layoff announcements are down from earlier in the year, and more firms say that they are planning to hire or are thinking about hiring. I would note anecdotally that firms announcing job increases in the last couple of months include several call centers, a major railroad, several manufacturers in our area, and a number of high-tech firms in Colorado. To the relief of people in both Kansas City and Tulsa, American Airlines decided not to lay off workers at its two large maintenance facilities in those cities.

On the manufacturing side, activity actually strengthened further. Production and new orders both increased, and expectations for future production and orders remained relatively high. Capital spending also improved somewhat. Although employment remained below year-ago levels, the average workweek did rise noticeably. On the negative side, aircraft manufacturing continued to struggle, with little improvement expected until 2005. I would note that from August to September the year-over-year production index from our survey of manufacturers rose from 8 to 17, the new orders index climbed from 22 to 31, and the capital spending index improved from 0 to 12. Moreover, preliminary data received for October as late as yesterday suggest that these trends persisted in October.

Consumer spending continued to edge up despite the softer labor market that I mentioned. Retailers contacted also said that they had had pretty good sales and their confidence remained strong. Housing activity increased further, setting new records in most of the areas except for Denver where it's a little slower. Commercial real estate does remain weak in the

region, and energy activity is expanding but at a moderate pace. State and local budgets show further signs of improvement, with some tax revenue increases in several of our states. But I would caution that to some extent those numbers reflect tax increases. On the agricultural side, forecasts for net income have moved up as much as 22 percent over last year. But I would remind you that about \$20 billion of federal farm payments are included in those numbers.

Let me turn to the national outlook. The economic forces are in place for a relatively robust recovery. That assessment is based on current monetary policy, fiscal policy, productivity, and a good strong financial system that can support credit needs going forward. Overall, I expect growth through the end of next year to be above 4 percent, a little better than the Blue Chip consensus but not quite as strong as the Greenbook forecast. As noted, a recovery in capital spending and an increase in employment remain two risks to our achieving sustainable economic growth. But I'm hearing about some increases in capital spending from the people we talk to, and we see some evidence of it in the numbers. In my conversations with CEOs in the District, there's a clear sense of greater confidence and an indication that firms are more willing to undertake planned expansions. So I'm optimistic about that. We also are beginning to see some signs that labor markets are responding to the acceleration in growth over the past several months. The evidence is very preliminary and tentative, I realize, but I think it bodes well for the labor markets going forward.

Turning to the inflation outlook, I would say that, in the near term, inflation is likely to remain stable and that the risks going forward are about balanced. A continued decline in the dollar could put upward pressure on inflation. Although the output gap may put some downward pressure on inflation, I am reluctant to put a lot of weight on that gap as a predictor of inflation.

Research here and elsewhere suggests that the predictive powers of the output gap on inflation are difficult to find.

Finally, on the topic of policy let me say that I clearly would be of the view that for now we should maintain policy where it is. I think any change would actually be harmful in the current environment. However, given recent data, I'm not convinced that we can define a period within which we can keep rates this low. I also think it's important that the public come to realize, as President Parry suggested, that an accommodative policy refers to the level of the funds rate and not to the direction of any change. Although I do not have a point estimate of the long-run equilibrium for the funds rate, it probably is more likely in a range of 3 to 4 percent than near 1 percent. Thank you.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Thank you, Mr. Chairman. I would describe the information that we've received on our District's economy recently as generally mixed. Of course, a hurricane hit us shortly after our last meeting. The storm uprooted a lot of trees, caused extensive power outages, and forced some business closings for a while, but I don't think it has had any significant longer-term effect on the regional economy. Again, the overall information we've received is mixed. I would say that many service industries seem to be doing reasonably well at this point but manufacturing activity, which appeared to be improving a little during the summer months, has softened most recently according to our latest monthly survey. Both shipments and new orders have been declining at a number of facilities, and additional layoffs have been announced at several textile and apparel plants.

I'd like to focus for a minute or two on the anecdotal information we've received as opposed to the recent data. We've talked with a number of people in recent weeks, and I would

say that on balance they're probably a little more optimistic than they were at the time of the last meeting but not much. Most of our business contacts are still more than normally uncertain about the outlook, and hence they're still hesitant to commit to significant new investments or workforce expansions. We had a joint meeting of all three of our boards—the Baltimore and Charlotte boards as well as the Richmond board—here in D.C. a couple of weeks ago. I thought the tone of the economic discussion at that meeting was remarkably restrained, given all the media hype about the possibility that the expansion is beginning to accelerate. If those board members could see the Greenbook projection, they probably all would be surprised. Some of them would be encouraged but I think a few at least would think we've been smoking something.

MR. STOCKTON. I just want the record to show that that is not the case! [Laughter]

MR. BROADDUS. I withdraw that statement! Turning to the national economy, the lead story in this Greenbook, of course, is the 2 percentage point upward revision, to 6¼ percent, in the third-quarter growth rate. Given estimated potential GDP, there's a chance, as we all know, that the output gap has shrunk from around 3 percent in the second quarter to below 2 percent in the third quarter. In the staff projection, the gap has been marked down to about ½ percent at the end of next year. Incidentally, I think it's very helpful to have that number in the Greenbook explicitly, and I appreciate your putting it there. In any case, it's obviously a very encouraging projection, as we've noted already in our discussion.

But it's important to note that, in the third quarter, firms met the stepped-up demand with continued high productivity growth and actually slightly lower aggregate hours worked than in the second quarter. So in that sense the job market weakened further in the third quarter, and what one might call the employment gap actually widened further since aggregate hours need to grow at an annual rate of around 1 percent to absorb the normal increase in the labor force. So

there's a tension or divergence, whatever the right word is, between a narrowing output gap and a widening employment gap in the third quarter that's going to have to be resolved one way or another.

I'm really looking at what we've been talking about in just a little different way. The Greenbook resolves the divergence by assuming that the recent exceptionally high productivity growth reflects the extraordinary reluctance of firms to hire and rehire workers. The Greenbook projection assumes that this factor starts to abate next year with productivity growth slowing dramatically as firms begin to hire very aggressively to meet rising demands. Demand grows fast enough in the forecast to reduce the excess supply of labor by the end of next year.

But there's an alternative resolution that's worth considering, and I guess this is one of those dark thoughts that you mentioned in your briefing, David. If productivity continues to grow as rapidly as demand next year—either because productivity grows more rapidly than expected or because demand grows more slowly than expected—the consequence in this alternative scenario is that the job market remains weak. The weak job market, in turn, gives rise to a bigger decline in unit labor costs than projected in the Greenbook. As a result, because firms tend to pass persistently falling unit labor costs through to prices, there's more disinflation in this alternative scenario than in the Greenbook baseline. So we wind up with a slower narrowing of both the output gap and what I call the employment gap as well as more disinflation. Also, monetary policy might have to be a part of the resolution of such a scenario. Conceivably, we might have to lower the nominal funds rate going forward either to keep the real rate from rising or to reduce the real rate in order to stimulate the economy.

So in sum, I like the Greenbook forecast. It's very easy to love, and I don't think it's implausible. But we need to keep in mind, at least for the time being, the less favorable

alternative scenario that I've described and that others have described in different ways here today, as we think about policy, the statement, the wording of the announcement, and all the rest. The risks with respect to price stability as I see it are still decidedly on the downside, and I think we need to indicate that clearly in our decision and our announcement today.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. Thank you, Mr. Chairman. Most signs of economic recovery in the Third District have strengthened over the intermeeting period, unlike some of the reports we've heard from my neighboring Districts. The exception is the labor market indicators, which have not shown any improvement. The job market in our region has fared better than in the nation as a whole. Stronger job growth in education and health services and in the leisure and hospitality industry in our District's states compared with the growth in these sectors in the rest of the nation contributed to the region's better job performance. That said, District labor markets still are characterized as weak. Pennsylvania and Delaware payrolls remain below their levels at the end of the recession. Only New Jersey has seen job growth, as First Vice President Stewart indicated in his coverage of the northern Jersey employment numbers.

We have received better news from the manufacturing and retail sectors. We have solid evidence of a recovery in manufacturing, although structural change has continued to limit the strength in that sector. Several indicators in our business outlook survey show strong improvement this month. The index of general activity advanced sharply to plus 28 percent, its highest reading since 1996 and the fifth consecutive positive reading. The indexes of new orders and shipments also advanced and are at their highest levels since mid-1999. Even the employment index turned slightly positive this month. However, most firms surveyed are not back to their pre-recession levels of production. Nearly three-quarters said they experienced

production declines during the recession, and less than one-fifth of these firms expect to be back to pre-recession levels in the first quarter of 2004. More than one-third said they expected not to return to those levels in the foreseeable future, which by that survey question meant the end of 2004. Most respondents cited as reasons long-term declines in their industry and loss of market share to competitors both here and abroad. These numbers might help us to quantify the degree to which the current weakness in manufacturing is due to structural as opposed to cyclical factors.

Retail sales in our region continue to improve modestly. September sales were up from August even though some easing in the rate of sales increase was expected because of income tax rebates and a good back-to-school season that boosted August sales. Our retailers have revised upward their fourth-quarter sales forecasts. Respondents to our south Jersey business survey, 85 percent of whom are in nonmanufacturing areas, reported an increase in equipment spending in the third quarter and plans for even stronger spending six months from now. And residential investment in the District remains high despite increasing mortgage interest rates. So, overall the recovery continues to build momentum in the Third District, and business contacts in our region, including those on our board of directors, are expressing more optimism than I've heard for a while.

Economic conditions in the nation have improved since our last meeting as well. Growth in the third quarter was very strong, but firms raised productivity and thus continued to shed workers. I agree with the Greenbook that demand will continue to grow at a solid pace in the current quarter, although somewhat slower than last quarter, and that we'll finally begin to see payroll job growth. Conditions are supportive of continued strengthening next year. Equipment and software spending is expanding at a good pace. The stronger data for orders and shipments

coupled with robust growth in corporate profits should help boost business investment going forward. I would welcome a period of strong growth since a significant amount of economic slack in labor and product markets still remains, as others have indicated, and core inflation continues to be subdued. Nonetheless, I believe that the risk of pernicious disinflation has subsided somewhat.

I agree with the Greenbook that inflationary forces are likely to be muted over the near term. But I believe that we will have to begin to take some of the monetary accommodation back to help ensure that we don't get any inflation—and probably earlier than mid-2005 as the Greenbook assumes. Accordingly, given the strengthening of the underlying economy and the forecast of continued improvement over the next several quarters, I think we should begin to shorten the expected time frame of ongoing accommodation. But this brings me quite close to the next topic, which is our communication policy. So I'll end my comments here before I go too far into that agenda item. Thank you.

CHAIRMAN GREENSPAN. President Pinalto.

MS. PIANALTO. Thank you, Mr. Chairman. The 2001 recession is now nearly two years behind us, and I believe that most people in the Fourth District have accepted, perhaps surprisingly, that the economy is expanding. Even our manufacturers are seeing evidence of improvement in business activity. Our steel producers report that the worst may be over and that prices are actually firming in some markets. Machine-tool makers report that they also are seeing a pickup in orders from small and medium-size businesses as a result of the special depreciation allowance for capital goods.

Nevertheless, there is still a great deal of anxiety about the sustainability of the recent upturn in business activity. I'm told by my business contacts that the expansion lacks balance.

Bankers, for example, are having a profitable year, but they would prefer to have a larger portion of commercial loans in their loan portfolios. Manufacturers in my District remain uneasy over the pressures they face from global competition, and I doubt whether that pressure is going to dissipate any time soon. As a member of my Small Business Advisory Council put it last week, old line thinkers who looked through the business cycle expecting their order books to return to normal are now exiting their businesses. There is no “normal” any more.

Recessions and their immediate aftermath account for much of the trend decline in manufacturers’ share of overall employment, and this cycle is no different. CEOs continue to report that they are using this downturn to reassess their business strategies, to reexamine their product lines, and to reexamine the location of their facilities. As they sort through these options, companies continue to be cautious—or maybe I should say disciplined—about their expansion plans, including their hiring plans. Their comments, though recently a bit more optimistic, do not suggest an impending rebound in hiring on the order of magnitude of the acceleration that the Greenbook forecasts in 2004. Productivity and profitability are figuring prominently in everyone’s thinking about the business outlook. CEOs report that they can still generate productivity increases by reorganizing their business processes and by implementing new production technologies. For example, a metal stamper firm in our District reported purchasing for only \$120,000 a machine that cost \$1 million three years ago, and that machine is going to do the work of five people. So he expects to make a profit with this technology and is focusing on increasing sales, but he’s not going to increase his workforce in the near future.

It’s not entirely clear to me how to think about the current high rate of joblessness and low rate of capacity utilization. Again, I wonder whether these resources are simply underemployed or whether they have become obsolete. The story of the metal stamper is not

unique. Many manufacturers in my District tell me that resources, both capital and labor, have lost their economic value during the past several years. Perhaps the lower economic value placed on these resources represents a slowdown in potential output. Translating, therefore, what I've heard from my District contacts into the Greenbook projections, I would end up with a scenario close to what President Broaddus and some others talked about earlier this morning—that is, somewhat slower employment growth and somewhat faster productivity growth over the next several years. As David Stockton commented earlier, these two factors could still yield roughly the same output and income path as in the Greenbook. But as noted by President Broaddus and others, these two factors—slower employment growth with somewhat higher productivity growth—could also lead to further disinflation. However, if it's reasonable to think that the economy has sustained a slowdown in the rate of growth of potential, then looking forward, the disinflation implications could be less troublesome than in the Greenbook baseline. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. A preponderance of the reports on the District economy have been positive, but before I quickly summarize those findings let me just identify the sectors that are still soft. One, of course, is commercial construction, where activity is quite subdued. The second is tourism. Tourism has improved over time, but it has still been a mediocre year for that industry in the District. And although business attitudes are certainly better than they were nine or twelve months ago, I would have to say that they are still cautious. Other than that, though, I think the District economy has tracked the national economy reasonably well, as it typically does. We have seen gains in employment in the private sector over the past several months, but since state and local governments are still reducing

employment, those gains have not shown through to any great extent in the overall job numbers. Strength in consumer spending has been sustained, and housing activity and related measures have strengthened further. I would judge, based on anecdotes, that manufacturing has improved in the District over the past several months. One final piece of information on the District comes from a contact who is knowledgeable about freight shipments through a variety of modes—that is rail, barge, and truck—and he has reported that both volumes and prices have increased perceptibly in recent months.

As far as the national economy is concerned, like the Greenbook I am optimistic. If I have any reservation, it's the one that I alluded to earlier, namely that I would expect to get something like the Greenbook forecast but with greater increases in productivity and somewhat smaller increases in employment, acknowledging that forecasting productivity in the short run is probably close to impossible. But if that scenario were to come to pass, that would reinforce my conviction that inflation is going to stay low. If one adheres to gap analysis, though, I suppose one would have to allow for the possibility that inflation could go even lower. Personally I think that would be a benign development, but I realize that many people around this table have come to a different conclusion about that.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. Like others, I'll try to address two issues—the prospects for growth in activity and the prospects for jobs. With respect to demand and activity, the question is to what degree the strength of recent months can be sustained next year. It will come as no surprise to my colleagues in light of my recent presentations to this Committee that I'm optimistic in this regard. Stimulative financial conditions and fiscal policy are beginning to show through to growth. In the absence of further downward shocks or reasons for business or

households to turn more cautious, I see no reason why that won't continue, with only a modest downshift in growth from the third quarter as in the staff forecast. While fiscal policy won't be quite as expansionary next year, it still will be boosting demand. Moreover, even as private final demand might moderate a little, perhaps reacting to the falloff in fiscal stimulus, the growth of economic activity should be bolstered as more demand is met from production rather than by drawing down inventories.

Financial conditions have been expansionary for some time. They became a little more so over the intermeeting period as equity prices rose and the dollar fell, while corporate bond rates remained roughly stable or even moved down a little for lower-rated credits. Whether long-term interest rates will ease, as in the staff forecast, I think is somewhat questionable. But judging from the recent experience, the risks around the assumption of a slight further decline in the dollar are probably tilted toward a steeper falloff. Moreover, the drag on our economy from weakness abroad is abating. To be sure, some of the stronger global prospects reflect a better outlook for the U.S. economy. But I'm impressed by the rise in interest rates and equity prices abroad over the summer and early fall, even with the dollar depreciation. Financial markets abroad must be sensing some added domestic demand as well.

I see upside and downside risks to the forecast of reasonably strong growth along the lines of the Greenbook. On the upside, business caution may erode faster than in the staff forecast, where investment spending continues to undershoot forecasts based on past relationships with accelerators, cash flows, and the cost of capital. In the Greenbook the surprise in the incoming data was incorporated into a higher level of GDP and a smaller output gap, while leaving growth rates after the third quarter largely unaffected. In effect, the recent data are not interpreted as a signal that the dynamics of the expansion have changed materially, and the return

to full employment continues to be relatively slow given the low level of interest rates and stimulative fiscal policy. The damped response in demand was reflected in a chart in yesterday's briefing, which showed that the natural interest rate implied in the staff forecast remains abnormally low, especially relative to the assumed relatively rapid rate of growth of potential. Growth in the latter should be raising equilibrium real interest rates. But with the rise in profits and equity prices and persistent increases in sales, business responses could return to normal more quickly and fully than is assumed in the forecast, allowing much more of the natural resiliency of the economy to show through to even stronger spending. The upward revision to August orders data we saw this morning and the further gain in September I think underline this upside risk.

I believe that the major downside risk is in the household sector, which has been supporting the economy under the influence of low interest rates. The saving rate remains quite low. Both debt and real assets continue to pile up on each side of the household balance sheet, and the saving rate only edges higher in the forecast. It's not so much the debt burden that constitutes a downward risk; rather it's the possibility that households may decide that the marginal utility from a larger house or another SUV begins to fall relative to the flexibility and returns on greater portfolios of financial assets. We've seen no evidence of that yet. Housing remains remarkably strong. But it could be that tendencies in this direction have been masked in the short run by the effects of the tax cuts. So we will need to watch that the leveling-off in consumption in September isn't a forerunner.

In sum, strong growth going forward seems a reasonable expectation. But the economy is emerging from a highly unusual cycle in which previous signposts and historical relationships haven't provided much guidance, and any prediction must have an extremely wide confidence

interval around it. That's also my conclusion regarding the forecasts of whether even strong growth will erode margins of slack in labor and capital markets. We have experienced another quarter of an astounding increase in productivity. In this case, for a very good reason the staff decided not to build the third-quarter surprise into either the level or the rate of growth of structural productivity. This suggests to me some upside risk on potential growth, as a number of others have commented. It's possible that potential growth could be stronger than is built into the staff forecast without inducing much feedback into spending for a while. Low household savings suggest that households are already expecting fairly strong growth in lifetime income. Businesses are clearly renewing and upgrading capital stock. It's not yet clear that they see a need to increase that stock very much to meet expanding sales. They still may not be very confident that sales will grow at a rate that requires larger productive capacity. In addition, as a number of you have noted, they may not see the need to expand capacity; judging from the third quarter results, businesses have not run out of ways to rearrange production processes to meet growing demand.

My point here is not to second-guess the productivity forecast but to recognize the vast uncertainty about the supply side of the economy that businesses continue to work under. We had 6 percent growth in the third quarter and a small decline in payroll employment. Whatever the growth rate of the economy predicted or realized, even if it's very strong, we'll need to watch actual labor and capital utilization to infer how we are likely to be doing relative to our objectives for high employment and stable prices. Uncertainty on both the demand and the supply sides of the economy makes forecast-based policy especially problematic. Fortunately, in the current circumstances it's not as important as it often might be. Policy is already highly accommodative, and the economy seems to be headed up, but there is enough slack that we can

afford to wait for reasonably definitive signs before deciding that the economy is on track for drawing down those unused margins of resources and damping disinflation pressures. Until we see that hard evidence, in my view the risks to output growing around the rate of growth of its potential are balanced, and the risks to inflation are likely to remain downward. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. I don't have much to say this morning. We've planted the flowers. Now is the time to watch them grow. There are some risks that a number of you have spoken about—for example, labor demand and where that is. One risk that has not been discussed much is fiscal policy. The staff forecast has the fiscal effect declining very sharply in 2004. It's conceivable that, if our friends up on Capitol Hill get religion, some tax cuts may not be extended and we could get some reaction even before then. It's also conceivable that, if they don't get religion, we could see some adjustment in interest rates. So I think that set of issues has some dangers.

I had been a little worried about the timing because of the pattern of retail sales; growth was very strong in July and August and weakened quite a bit in September. First, the numbers could be revised. Second, the new orders statistics that we got this morning and the strength in housing seem to belie any September weakness, so there may be no particular problem in that pattern. There are some risks, but basically, to return to my previous metaphor, the flowers seem to be growing at a healthy rate, and I don't think we ought to change either our policy or our approach. With that I'm going to obey Dave Stockton's earlier injunction and cede time—hopefully a little to myself—for the discussion on communication policy.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. At every meeting we have to do three things: (1) assess the economy and risks to the outlook, (2) decide the policy implications, and (3) talk about communication. Recognizing that the third topic is going to be exciting today—one hopes—I'll try to be brief on the first two.

On the assessment of the economy, it's clear that the third and fourth quarters seem to be extremely robust. One recognizes obviously, as Ned Gramlich just mentioned, that the pattern particularly with respect to real PCE growth did slow a little in September. But that doesn't leave me with any great concern. I think the overall pattern of PCE growth is still well maintained. Similarly, I would point to the demand for both new and existing homes as being very strong; and this morning's data on shipments and orders also suggest that the third and fourth quarters are likely to be very robust. Fortunately, it also appears that the sources of the turnaround seem to be broadening somewhat. The industrial sector is starting to show some signs of strength. Industrial production appears to have expanded in the third quarter, and it's possible that capacity utilization is also starting to firm somewhat. I'd say that the labor market, which is the biggest question mark we've been dealing with, does seem to be giving some early signs of stabilizing. We haven't talked much about it in this room today but when the September jobs data came out, that got quite a bit of attention in the press, and we shouldn't forget that the news was positive. Similarly, the revisions to the job declines in July and August were all in the right direction and were consistent with a gradual bottoming of the labor market. The four-week moving average of initial claims declined a bit, and the household survey data suggested that layoffs might be subsiding. So overall I'd say that the Greenbook was right in terms of moving up expectations for the third and fourth quarters.

That leads to the second issue, which is how one assesses the future. In that regard I can understand and generally feel reasonably comfortable with the logic of the Greenbook forecast. The Greenbook assumes that the step-up in productivity will continue, though it hasn't taken in all the increases recently as permanent. The stimulative policies plus some assumptions about multiplier and accelerator effects all result in an economy that grows at about 5 percent per year, creates jobs and wealth, and then has the unemployment rate falling gradually. As President Broaddus said, the Greenbook forecast is certainly easy to love. If I were from the Dallas District I'd probably have a catchy tune about how easy love may be fleeting love. [Laughter]

Let me talk about the risks that are associated with this forecast. I think it's easy to see risks on the downside, as Cathy has pointed out. One of the risks is that so much of what happened in the third quarter and so far in the fourth quarter seems to have been driven by policy stimulus. Real pre-tax income was essentially unchanged during the summer months of the year. As that effect starts to wane, there's a possibility that we won't get quite the kind of uptick that the Greenbook expects. And while David and Vincent gave us a number of stories, if you will, about why demand for C&I loans has been very slow to turn around, the bankers I've talked to certainly are worried about it. They seem to think that it may really be a sign of slower growth than the Greenbook forecast suggests. I recently had a meeting with the real estate roundtable, and across the board that group was quite subdued. So some anecdotal information suggests that our staff forecast is a bit more hopeful than many people, at least many in the real world, are at this stage. Add to that the fact that the Greenbook forecast is already above the Blue Chip consensus, and it seems that some concern about the downside risks is warranted.

On the upside, though, I think one must say that rarely at this stage of an expansion has the economy seen this kind of fiscal and monetary stimulus—with interest rates extremely low,

prices stable, the dollar coming off, productivity increasing, financial conditions turning, and earnings relatively strong. Those and a variety of other factors could lead to some upside potential around the forecast. So I'd say that even around our relatively optimistic forecast, while love may be fleeting, the risks are relatively balanced.

With respect to policy, I suspect that, when we get to that point of our discussion, there's not going to be very much to say. With respect to communication I, like others, will restrain myself as best I can except to say that I believe the interaction between policy and communication today is such that the Committee would be very well advised to take a fairly cautious approach. We have a great deal to discuss, and I'd hate for us to get ahead of ourselves in the statement that we make at 2:15 today. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I have a couple of comments. After two people in a row have said that they're going to be brief, I think I should say exactly the same thing, and I will. Over the past week I've talked to a number of bankers whose comments essentially reinforced a lot of what we have heard around the table. Two community bankers, one in the upper Midwest and one in the Southwest, had exactly the same observation. They are feeling additional competitive pressures from the nation's largest banks as those banks come after the small business market. That supports the appetite for increased risks that we've seen around the country. I think it supports also the notion that the slack demand for commercial loans has forced banks to reach toward other kinds of loan opportunities. A regional lender in the Midwest had a slightly different perspective, but it was along the same lines. He noted the difference between the response he was getting from his front-line lenders as opposed to what he was getting from the credit department people. The front line people felt that there was a good deal of increased activity but

that it had not yet translated into loans. The one exception was lending to businesses that were exercising purchase options for currently leased facilities. That, too, supports the view that a lot of the lending is either to lock in liquidity or to restructure and improve the overall ability of business entities to finance growth internally, which is what I think I heard Dave Stockton and others say.

In talking to some contacts in institutional and custodial service businesses, a couple of other trends came to light. One was another reaffirmation of the shift by consumers into equities, a trend that had been obvious but has become even more obvious within the last six weeks. But the institutional investors were moving offshore, in many cases to emerging Asia, which is consistent also with the story in the Greenbook in terms of expectations for growth there.

Pulling together what I've been hearing—notably the change in risk appetites, which was probably the most obvious—it appears that a lot of lending continues to be for balance sheet restructuring. Much of the lending tends to be in anticipation of improvement in the underlying economy. To the extent that there are increases in capital expenditures, they are not being reflected in new C&I loans in the banking industry. But in comparing the feedback we were getting with regard to inhibitions to capital investment six months ago versus now, I had the impression that there was a significant change. Six months ago we were hearing the terms “psychology” or “psychological,” whereas now in describing the underlying economy contacts are using words like “confidence” or “optimistic” or perhaps “cautious.” The use of the word “psychology” suggested that there was an irrationality to the decisions on capital spending—that the decisions were not based on an analysis of the underlying data but were independent of the data. We were looking at strength in consumer demand over the period, and that was not being taken into account by the business sector. Now at least the underlying economic data are being

analyzed and taken into account to some degree. So while we have not yet seen the same traction as in previous recoveries, the change in attitudes is very obvious.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. Thank you, Mr. Chairman. I wanted to make one comment on current conditions and then talk a bit more about the longer-run part of the Greenbook forecast. I was struck as I looked at the Greenbook forecast about where we are with regard to business investment in this expansion and by some of the information on capital spending that we're getting from various business surveys, much of which is included in the Greenbook materials. We've already noted that corporate cash flow is very strong and that we're beginning to see some firming up of business investment. But the responses to the qualitative questions that are asked in surveys clearly show that businesses are reluctant to expand. Nevertheless, I think there is a tone that says we're seeing a floor here; we're beginning to get out of this slump in investment. That slump was the root of this business slowdown and, as Governor Olson was just mentioning, the words are starting to turn positive. But the vigor of corporate expansion has yet to take hold. I think the recent information shows again that we clearly have a way to go.

It worries me when I look at how much stop and go we've had in the economy in the last two years. The Greenbook forecast is assuming that there are no real shocks coming. We've had a number of shocks in the past few years. Last year business inventories grew, but then we had the shock of a war in the spring. There have been so many starts and stops in this recovery that it may take a little longer to prove that there is some stability out there and to get businesses into an expansion mode versus just a replacement mode. Clearly their financial strength is extraordinary. The corporate cash flow and earnings numbers coming out this quarter all look very, very strong.

In thinking about the longer-term forecast and where we are heading, I was struck, too, by the wonderful optimism in the Greenbook forecast compared with some of the outside forecasts. I just want to comment on two aspects of this that I'm still sorting through in my own mind. One is that we've had an extraordinary run in productivity over the last few quarters. Yet when we look forward, productivity growth for the last six quarters of the Greenbook forecast falls below the recent numbers. I understand that a big part of the productivity performance is cyclical. But the projected drop in productivity growth is coming right when the economy is really picking up. So we have this tension in the forecast, I think, where we see employment growing—extraordinary job growth—and productivity slowing. Yet we still have inflation trending down until the tail end of the forecast period. In the Street, as market observers talk about expectations—and it's a factor in our communication policy—they say that once employment starts expanding, inflation is going to pick up. That is going to be one of the challenges we face if we believe in the Greenbook forecast. In fact, of all the alternative scenarios, there's only one that results in an inflation rate that's within hailing distance of 2 percent. And that's due only to the fact that people's inflation expectations are higher than actual inflation. Basically in this forecast, depending on the inflation measure, we will have had four or five years of inflation numbers that start with a 1 or below, which would be an extraordinary period of low inflation. That psychology is not what most observers have in their mindset, nor is it part of the business recovery models that we see in the marketplace. So we need to think about how we talk about these issues going forward.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. I was interested in the likely evolution of the federal funds rate over the next two years. So I asked the staff to use their best fitting

estimated Taylor rules together with both Greenbook and private sector forecasts to project some sample interest rate paths. The rules the staff chose were a backward-looking Taylor rule estimated over the 1988-98 period and a forward-looking, or forecast-based, Taylor rule estimated over the same period using FOMC central tendency forecasts on the right-hand side plus some additional data assumptions. By the way, this latter rule is the one discussed in some detail in Dave Lindsey's magnum opus on communication. Both Taylor rules allowed for error correction terms—that is, a lagged interest rate in the equation. The projections were run using actual data plus either Greenbook or Blue Chip forecasts on the right-hand side and then compared with funds rate forecasts obtained from the fed funds futures markets. Note that this exercise treats the Greenbook forecast as given. No attempt was made to reconcile the funds rate projection obtained with the funds rate assumptions used in deriving the forecast.

Let me summarize a couple of interesting results from this exercise. First, the backward-looking rule would have the current funds rate at about 1.50 percent. The actual current value of 1 percent presumably reflects in part our insurance policy against deflation. Assuming that the extra 50 basis points are phased out in a linear way over the next two years, the path that is suggested by the backward-looking rule would go about as follows: It's currently at 1 percent; it would be 1.25 percent by the end of the first quarter of next year, 1.50 percent at the end of the second quarter, 2.25 percent at the end of 2004, and finally 3.50 percent at the end of 2005. The backward-looking rule applied to the Blue Chip data gave a fairly similar, though slightly more aggressive, path through 2004. The Blue Chip data don't go out far enough to do a projection through 2005. What I found most interesting about the results using the backward-looking Taylor rule is that they correspond extremely closely to what comes out of the futures market. The numbers are almost exactly the same. So the main lesson I learned from this exercise is that

the market is using historical relationships and backward-looking type Taylor rules to figure out what we're going to be doing in the future.

There was an interesting contrast to the results when I used the forward-looking rule. In particular, the forward-looking Taylor rule implies a much slower tightening process. Indeed according to that projection, the funds rate will reach only 1.50 percent by the end of 2004 rather than the 2.25 percent forecast by both the futures market and the backward-looking rule. The Greenbook forecast horizon doesn't permit a projection through 2005, though, so I couldn't make that comparison. Why the difference? Mechanically, the difference arises because the forward-looking rule puts a high weight on inflation expectations, and of course, using the Greenbook forecast we have a very low inflation rate expected over the forecast period. So that's the mechanical reason.

Which of these rules should we take more seriously? Personally, I see some advantages in the forward-looking rule for two reasons. One is that it's a true real-time rule—that is, it estimates reaction functions given actual forecasts available at the time the policy decision was taken. Second, as Governor Bies mentioned, we're now in a period that is very unusual, and historical relationships may not work. So it's useful that the forward-looking rule can take into account explicitly how forecasts affect current policy decisions. The implications of this, I think, are interesting. To me it says that our policy stance is going to depend very much on what we think inflation is going to do. Suppose we buy the Greenbook forecast on inflation. I'm not making a judgment here; I personally think that inflation will remain low and stable over the forecast period, but not everyone does. But if we do agree with that inflation outlook, then at least based on this estimated rule our policy tightening should be slower and more gradual than suggested by historical relationships or by the funds rate futures markets. That leads finally to

two conclusions. One is that we should be especially vigilant about the inflation rate and where we think it's going to go. Second, we have an ongoing communication issue. If this is the way that policy proceeds, over time in one way or another we will have to bring expectations in the market in line with our actual policy.

Let me make one brief comment on communication. I just want to say that I very much appreciate the contributions and thoughts people have had, and I'm very open to the kinds of modifications that have been suggested. But I would echo Governor Ferguson's suggestion that for the time being we go relatively slowly. Thank you.

CHAIRMAN GREENSPAN. Thank you very much. We now go to Vincent Reinhart.

MR. REINHART.² Thank you, Mr. Chairman. I will be referring to the materials that Carol Low handed out during the coffee break. As shown in the top left panel of your first exhibit, investors seem to have raised the path expected for the federal funds rate over the course of 2004. They are still counting on cumulative tightening to bring the federal funds rate to 3 percent by the end of 2005, but they are now betting on the Committee to be a bit quicker in getting there. That said, market participants apparently don't anticipate that process to begin at this meeting or the next. Futures rates over the balance of the year are unchanged at 1 percent. Moreover, as shown in the table at the right, primary dealers do not expect any substantive change in the economic assessment issued this afternoon. With only a couple of exceptions, they expect you to announce that risks are balanced with respect to your growth objectives and tilted to the downside with regard to price stability, with the latter remaining the predominant risk.

Other manifestations of this shift in expectations are given in the middle panels. The solid black line in the middle left panel plots a measure of uncertainty about the federal funds rate expected in the next six months. For most of the summer and early fall, investors have been relatively confident that the funds rate will remain near current levels six months hence, no doubt importantly because of your assurances in the statements of August and September that policy can be kept accommodative for a considerable period. In recent weeks, though, there has been a growing sense that a turning point may be drawing closer, and this measure of implied volatility has moved higher. The middle right panel plots the distribution of the federal funds rate about six months ahead derived from options quotes yesterday (the solid bars) and just before the September meeting (the dashed line). More weight is now being placed on funds rates in the neighborhood of $1\frac{1}{2}$ to $1\frac{3}{4}$, apparently at the expense of odds on the funds rate holding at 1 percent or going lower. Aside from the

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

encouraging data on the economy, developments in financial markets may have made investors more confident about the outlook. As can be seen in the bottom panels of the exhibit, financial market conditions have eased considerably on net this year, including a modest contribution made over the intermeeting period.

I list this improvement in financial conditions first at the top of the next exhibit, which outlines the case for an unchanged target federal funds rate. You may view eased financial conditions to be one consequence of the current accommodative stance of monetary policy. As shown in the middle panel, the real federal funds rate, represented by the solid line, lies below the range of estimated equilibrium real rates. Indeed, a firming outlook for the economy has meant that r^* is an upwardly moving target. Keeping the real federal funds rate unchanged in such circumstances implies a widening interest-rate gap. That may be especially troubling if you think that pressures on resources may emerge a bit faster than the staff forecasts. As shown in the bottom left panel, in the Greenbook projection, the near-term surprise in the level of real GDP has been carried over the entire forecast period, the difference between the dotted line for September and the red line for October. Particularly if you thought that there was some risk that the most recent surprise also tilted up that red line some or that the speed of its ascent represents looming pressures on inflation independent of the output gap, you might be inclined, at a minimum, to keep policy on hold. Financial market participants may be expressing just those sorts of concerns in the upward climb in inflation compensation as measured from the Treasury market (the bottom right panel). These measures have moved higher looking over the next five years (the black line) and from five to ten years ahead (the red line). Of course, inflation compensation is a far-from-perfect proxy for inflation expectations, and these measures have not broken noticeably out of their range of the previous four years, but you might believe a neighborhood of 2 to 2½ percent to be on the high side of your objective.

To be sure, a pickup in pressures on inflation is not part of the staff forecast. Indeed, the case for easing 25 basis points, which is laid out at the top of exhibit 3, could rest on the view that, as resource slack lingers, inflation may drift into an unacceptably low region—if it is not already there. In the Greenbook baseline, the unemployment rate, seen as a solid line in the middle left panel, makes only a gradual approach to its natural rate of 5 percent by the end of 2005. Policy ease at this time might be viewed as helpful in working down economic slack more quickly. Moreover, such monetary policy impetus would be welcomed after the fact if a less robust expansion eventuates. In Part 1 of the Greenbook, the staff used the FRB/US model to consider what would happen if the economic recovery faltered at the beginning of next year, the implications of which are plotted as the dashed line in the middle left panel for the unemployment rate and in the middle right panel for PCE inflation. Worse still for the unemployment rate would be if this hesitation in economic expansion led market participants to move up their desired compensation for risk (the dotted lines). In circumstances in which actual inflation is low, inflation expectation are fairly well contained, and a sizable output gap remains, putting just a bit of weight on the adverse outcomes of the dashed and dotted lines might incline

you toward policy ease. That inclination might be strengthened by the fact that inflation is projected to fall to below $\frac{3}{4}$ percent in 2005 in either of these scenarios.

Last, at recent meetings, some members took encouragement from the performance of financial flows as evidence that there was some fundamental support to economic growth. As reported in the bottom left panel, on a twelve-month-change basis, M2 growth has turned down in its most recent readings. We think that relates importantly to the effects of a slowing of mortgage refinancing on liquid deposits and so is not a reading on the vigor of the economy, but we may be wrong. Concern about the performance of M2 might be underscored by the fact that other financial flows, including, as seen at the right, business loan growth, commercial paper issuance, and bond issuance, have all been anemic of late.

The remaining issue for your consideration centers on language, which is the subject of your final exhibit. Two points of procedure about that language. First, we included a fuller discussion of alternatives for the wording of the announcement in the Bluebook, in the hope of getting some feedback from the members. We did get some, and in the future we will circulate on the afternoon before the meeting a summary of all the comments received by close of business Friday. Second, in the Bluebook, we assumed that you intend to fit this afternoon's statement within the current structure and reserve any discussion of changes to that structure for later.

Within that structure, the top panel repeats a table from the Bluebook and shows that there are only a limited number of combinations of the assessments of the risks to growth and inflation that seem plausible among the nine that are logically possible. The current words lie squarely in the blue box, in which risks to sustainable economic growth are seen as balanced and inflation more likely to fall than not, with low inflation being the predominant concern. While the economic outlook has improved, much of that improvement remains a forecast, not firmly established in the data—especially so for readings on the labor market. That said, spending indicators have shown vigor, and the most likely transition in the near term would presumably be a move from that blue box to the yellow box, in which the risks to sustainable economic growth are viewed as weighted to the upside. Moving the assessment on the inflation outlook to balanced (the green box) seems likely to be a subsequent step, given the current room for the economy to run before resource slack is worked down.

The Committee's willingness to change the language at all must presumably be related to how it views the last sentence in the August and September announcements, the relevant portion of which is repeated in the middle-left panel. You might be comfortable in repeating that "policy accommodation can be maintained for a considerable period" if you believe the Greenbook forecast is likely. The staff's assessment of the current shortfall of the level of aggregate demand below that of potential aggregate supply, the likely expansion of aggregate supply over time, and the relative unresponsiveness of inflation to diminishing slack in resource utilization combine to suggest that the Committee could keep the funds rate at 1 percent through 2004 and foster acceptable economic performance. An examination of private-sector

opinions, however, may leave you with more concerns about the definition of a “considerable period.” As shown in the middle-right panel, readings on money-market futures contracts suggest sizable weight on policy tightening that brings the funds rate to 1¼ percent by midyear. Wall Street economists, the solid line representing the median of a survey of investment bankers, also expect firming, but a little bit more delayed. As outlined at the bottom left, dropping the sentence at this meeting may risk an outsized market reaction, as investors begin to wonder if the path for policy embedded in futures rates is not aggressive enough for your taste. One possibility would be to convert the reference from calendar to economic time. That is, the Committee’s definition of a considerable period could be made contingent upon the outlook for further disinflation. One such possibility, given at the bottom right, would have the statement read that “the Committee believes that policy accommodation can be maintained for the considerable period it currently assesses will be required to foster the moderation of disinflationary pressures.” The Committee considered such a change at the September meeting, felt it to be a close call, and ultimately decided that altering the language would draw more attention than warranted. You may feel yourself still to be in that position at this meeting.

CHAIRMAN GREENSPAN. Thank you. Questions for Vincent?

MR. PARRY. Vincent, in the top panel of exhibit 4, there is a column labeled “unwelcome fall.” One thing we’ve learned in the last two quarters is that productivity has been extraordinarily strong. Certainly the probability of a decline in inflation from, let’s say, the level in the forecast may be reasonably remote, but the proportion of it that may be welcome may have changed because of a shift in supply. There’s no mechanism for reflecting the fact that not all declines in inflation are unwelcome.

MR. REINHART. Well, I would say that, on one level, rapid growth in aggregate supply only raises the bar for the growth of aggregate demand that the Committee should desire to get the outcomes it wants. So in that sense, there still could be unwelcome declines in inflation.

MR. PARRY. Of course.

MR. REINHART. But they would not be associated with problems relating to the economic expansion. In general the linking of “unwelcome” and “disinflation” or “a pickup in inflation” may pose a problem in the current structure of this language. It’s a problem that

President Stern also referred to in his discussion of disinflation as not necessarily being problematic. But I would say that, from the Committee's perspective, a decline in inflation from current levels, while perhaps not posing a threat of serious damage to the economy if it is due to a rapid increase in the aggregate supply, may send the inflation rate below your longer-run objective.

MR. PARRY. But it appears as though it would be less unwelcome than we may have thought before we knew what was happening to productivity.

MR. REINHART. In that regard, you do have your other assessment to separate the distinction between less unwelcome and more unwelcome. An unwelcome decline in inflation that was associated with a growing resource gap would presumably be closer to those pernicious deflations that members have expressed concern about in the past. A decline in inflation associated with balanced economic growth or even upward pressures on economic growth would have different implications for policy. One thing that's fairly clear to me in working on the communication policy is that Committee members really want a lot of different toggle switches in the statement to express contingencies like this.

MR. PARRY. Well, in my effort to communicate better with you, I feel better.

[Laughter]

CHAIRMAN GREENSPAN. Just remember, if you want to parse words, "unwelcome disinflation" is part of disinflation. You can size it however you so choose. That's what our communication problem is getting us into. Further questions for Vincent? President Santomero.

MR. SANTOMERO. In regard to President Parry's comment, perhaps the problem here is that we're trying to combine two different issues regarding inflation in this chart—namely, the probability of inflation moving up or down as currently forecast and a qualitative evaluation of

that. Maybe we should separate the two—define the risk of inflation falling, say, which the Committee might then describe as desirable or undesirable depending upon the circumstances. What I'm struck by is the asymmetry reflected in this box. We have value judgments associated with the columns but no value judgments associated with the rows. It's not clear why we'd necessarily want to start off by having value judgments associated asymmetrically.

MR. REINHART. I view that as a serious problem with the current structure of the language. In the proposals discussed in the two memos that I circulated, I separated out the first two statements as being declarative statements about your forecast couched in probability terms—the probability of inflation rising or falling and the probability of growth above or below a sustainable rate. Then I ladled in the welfare judgments, the judgments about relative costs in your objective function. That is, everything that relates to risk management in a central bank is put into that third sentence.

MR. SANTOMERO. Essentially I'm agreeing with that approach, given the difficulty of communicating the alternative, which blends the two together.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. The more we go into how to slice and dice and stress-test all of these various formulations—whether it's the current one or the one Vincent proposed in his October 17 memo—the more difficult and complicated this whole process becomes. It is fraught with untoward circumstances or unintended consequences. I think we need to take a big step back—not today, for purposes of this meeting—in considering these various proposals. As I and a lot of other people around the table suggested, given that we're not likely to change policy, let's stay as close as we can to what we have been saying. Maybe we can fiddle with it or add

words to the “considerable period” or maybe not, depending on how we come out on that. But I’d say leave it alone.

The atmosphere is really difficult out there, and I don’t think the recent newspaper articles did us one bit of good in terms of providing us with some flexibility to change things. Even if that were desirable now—and I wouldn’t agree that it is—I believe we really need to think about this a lot longer and a lot harder. I for one would want to take a big step back and even think about whether we want to continue with a formulation that came out of the old tilt. Why do we want to continue doing that? Why do we want to put out information about the future that we’re all uncomfortable with? Saying why we did what we did has enough of a future impact without adding all this information about risks when we realize that there’s a great deal of uncertainty about the risks. That’s a discussion for another time—maybe at lunch or in January. I just want to encourage us, please, not to do anything very different this time. There’s so much to talk about just in terms of this grid, let alone the seven or eight variations that you put in your October 17 memo. Also there’s Ned’s proposal, which I think has some attractiveness to it. Let’s just stop now and try to figure out what we’re going to do. We can have a little conversation over lunch and take it up again in January.

CHAIRMAN GREENSPAN. Further questions for Vincent? If not, let me just say that Cathy is raising a general concern that I think we all share. One can see it by trying to use language to calibrate mechanisms that are digital. Every technician will tell you that that leads you nowhere. In any event, we’re going to get a clarification of the outlook in the next couple of months, and it will be significant in the sense that Christmas sales will be a fundamental test of consumer attitudes going forward. That will resolve the issue of what part of the tax cut actually was spent in the third quarter—75 percent according to Goldman Sachs, significantly less

according to most others. We'll know that by the time of the January meeting. The labor markets are either turning or they're not. The evidence suggests that they are, but again, we'll need more time to make that judgment. Obviously capital spending is a crucial issue, and that is apparently improving. Again the question is, if I may use a new term, whether it is "slogging" away. [Pause] There are not many foreign policy buffs around this table! [Laughter]

MR. GRAMLICH. That's another reason for not using the term, by the way. [Laughter]

CHAIRMAN GREENSPAN. If it turns out that the economy, after going through this recent surge, simmers down very dramatically and indeed exhibits weakness, then from a policy point of view we're obviously well positioned at this stage. I think a weakening in economic activity is unlikely. I believe it's more likely that evidence of an old-fashioned business cycle expansion is beginning to emerge. The pieces are falling into place. Some are little things like the upward revisions to profits, which have been exceptionally extensive. We haven't seen anything like these numbers since the height of the boom back in the 1990s. We're seeing for the first time this year an uptick in the long-term outlook for earnings per share.

Unlike in previous periods, the economy is moving forward largely on the basis of final demand, as I think Dave mentioned. There is no question that in July and August firms were liquidating inventories, and the data we have for September confirm that the liquidation continued through the end of the quarter. My recollection is that, when I saw the original Greenbook projection that had inventory liquidation continuing through the rest of the year, I was incredulous. I was even incredulous about it continuing in the third quarter. But clearly that's what we're seeing. Indeed, the data on durable goods inventories for manufacturing confirmed that this morning. It is probably the case that motor vehicle inventories did rise in October, just judging from the falloff in sales. But there is no evidence as yet to suggest any

significant inventory accumulation, and in a way that's probably good rather than bad because we're looking forward to an acceleration. Purchasing managers at manufacturing firms, who are probably best positioned to have a sense of whether their customers' inventories are high or low, are reporting that they are extraordinarily low. Since all inventories by definition are produced by manufacturers, with the exception of a few items in mining, lumber, and the like, these people are very focused on the process. Basically they are saying that the inventory situation is getting tighter and tighter. So there's an upside risk here, which is something we have not seen for quite a substantial period of time.

If the economy starts to heat up, obviously we're going to have to create a credible exit strategy from maintaining an accommodative stance for a considerable period. We have a lot of alternatives, and maybe that's part of the problem. We may have just too many widgets to push and too many permutations and combinations with nineteen people to get any single set of views.

I think we could remind the market that we first used the term "accommodative" in early 2002 when we moved the funds rate down to 1.75 percent. Bob Parry has raised that issue publicly. He got a lot of attention. [Laughter] Anything that anybody on this Committee says gets a lot of attention, largely because the truth of the matter is that we are in uncharted waters. In our personal experiences we have never been at a point when the inflation rate for all practical purposes is zero. We have reached price stability. In previous periods when the economy was turning and inflation rates were 3, 4, or 5 percent, a preemptive policy move made a lot of sense. But what are we preempting from when inflation is effectively at zero? What that means is that we have a lot of time to sit and watch the process going forward. But as Ben Bernanke pointed out, one possible explanation of what the markets are doing is that they are merely replicating our past behavior, which is called backward-looking analysis. I think that's right. That's what

markets always do. It is going to be a fascinating process if this economy, as is most likely, begins to show far greater signs of underlying strength and sustainability. We're going to have to work our way through to determining where we need to be on the funds rate.

I ought to emphasize that we have a number of ways of doing that. Obviously, the accommodation issue can be redefined. We can return to an assessment of balanced inflation risks. We can say that the risks to sustainable growth are on the upside. Or we can rephrase how we state the balance of risks. And we can make all of the adjustments with different timing. For example, there's no reason that we cannot start raising the short-term funds rate and still have the next sentence of our statement indicate that we will remain accommodative for a considerable period of time. Or we can decide to drop that statement at the first stage.

But let me emphasize this: The bottom line is that we should have the policy that is the right policy. If we actually allow this whole question of who says what and how the press will read it—whether it's up, down, or sideways—to affect our judgment regarding the implementation of the optimum policy, we are making a very bad mistake. The people out there who are in either the cheering or the booing section know less than we do, and they demonstrate that periodically. Whenever I suspect otherwise they dissuade me! [Laughter]

So the first thing we have to do is to decide what we want to do. Then as a wholly separate exercise we need to determine how we want to explain it, in what manner, and to whom. If we intermix these two issues, we're making a very bad mistake. If we allow the movement in rates to reflect how we expect markets to respond, we're going to find that we all presumed that if we move X the markets will respond Y, but in fact when we move X the markets will do something else. We can't be sure how the markets will respond. There is no solution to that

dilemma. In my view, we have to keep that in mind in the discussion we're going to have shortly. We have to separate policy from communication.

Having said that, we do have to determine what we want to say in our press statement after we decide what we want to do on policy. I agree with those around the table who have cautioned against doing anything significantly different today. I say that because I have no idea how the markets will respond. I know everyone has his or her own view about that, and I appreciate that. But anybody who says he has a clue about how the market will react is in my judgment expressing a lack of knowledge.

As far as I'm concerned, the policy issue today is straightforward. I think there's no issue with respect to the appropriate policy. Policy is actually working well. It's hard to remember this, but not too long ago we were looking at the possibility of an awesome downside on the inflation rate, and we weren't sure we had the tools to deal with it. We know exactly what to do on the upside. We may not get it right, but we know what to do. As a consequence, we may have looked at the Greenbook forecast six months ago and asked what Dave Stockton was smoking. Well, whatever it was, it was pretty good! [Laughter]

My bottom line is that at this stage we have to make minor adjustments in the first paragraph. We can't talk about weak labor markets; we need to say we're in a period where they've stabilized or something like that. But I'd just leave the rest of the wording alone and ship it out and go work on something else. That is my recommendation, and I'd be interested in your reactions. President Hoenig.

MR. HOENIG. Mr. Chairman, I support you completely. Since we're into metaphors today, here's mine. With regard to the communication part of your recommendation, with the second paragraph I think we have dug ourselves into a hole and we're trying very hard to get out

of it but all we're doing is getting in deeper. Let's put the shovel down, think about it, and climb out of this hole later. That's why I'd say leave the paragraph exactly the same.

CHAIRMAN GREENSPAN. President Poole, what do we do about the shovel?

[Laughter]

MR. POOLE. I was going to comment that I think the minutes that will come out on Thursday are going to help a lot. On page 14 there's some important language that emphasizes that the "considerable period" has to be interpreted in the context of the evolution of the economy, not in the context of calendar time. I believe that language is going to help to get us to a much better position in the future. I would also note that there's an old saying that the best tax system is an old tax system. I think that's probably true of communication strategy as well. We need to develop a standard strategy. If we're going to be reviewing our communication policy at some length later, it's best not to have a whole series of changes along the way until we complete our review. In the meantime, we should let the issue sit as quietly as possible.

CHAIRMAN GREENSPAN. I meant to say that, and I don't think I said it explicitly. We really ought to have the simulated exit strategy spelled out in full detail before we take the first step. We have to know where we want to end up under various conditions so that we don't find ourselves as perpetual ditch diggers. President Broaddus.

MR. BROADDUS. I concur with your recommendation, Mr. Chairman, and I like Tom's metaphor.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. I concur with the recommendation.

CHAIRMAN GREENSPAN. President Santomero.

MR. SANTOMERO. I concur with your recommendation, Mr. Chairman. One thing I will say is that this exercise has convinced me that trying to write down every single contingent response in a group of nineteen people is extraordinarily challenging. These memos and various options may be worth reading but not necessarily worth doing.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I very much agree with your suggestion, Mr. Chairman, and I also like Tom's metaphor.

CHAIRMAN GREENSPAN. Governor Kohn.

MR. KOHN. I agree with your recommendations, Mr. Chairman.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. I agree with your recommendations.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. I agree with your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. I'm comfortable with your recommendation.

CHAIRMAN GREENSPAN. First Vice President Stewart.

MR. STEWART. I concur.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. I concur with both parts of your recommendation, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Bies.

MS. BIES. I support your recommendation.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. I support the recommendation.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I agree with the recommendation, with the understanding that we'll have a thorough discussion of this issue in the future.

CHAIRMAN GREENSPAN. President Pianalto.

MS. PIANALTO. I agree with your recommendation, Mr. Chairman.

MR. MCTEER. So do I.

MR. GRAMLICH. I concur.

CHAIRMAN GREENSPAN. Would the Secretary read the appropriate language?

MR. BERNARD. The wording is on page 10 of the Bluebook continuing onto page 11: "The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 1 percent." With regard to the risk-assessment language, "Against the background of its long-run goals of price stability and sustainable economic growth and of the information currently available, the Committee believes the risks to its outlook for sustainable economic growth over the next several quarters are balanced. The risks to its outlook for inflation over the next several quarters are weighted toward the downside. And taken together, the balance of risks to its objectives is weighted toward the downside in the foreseeable future."

CHAIRMAN GREENSPAN. Call the roll please.

MR. BERNARD.

Chairman Greenspan	Yes
Governor Bernanke	Yes
Governor Bies	Yes
President Broaddus	Yes

Governor Ferguson	Yes
Governor Gramlich	Yes
President Guynn	Yes
Governor Kohn	Yes
President Moskow	Yes
Governor Olson	Yes
President Parry	Yes
First Vice President Stewart	Yes

CHAIRMAN GREENSPAN. Our next meeting is Tuesday, December 9. Excuse me, I forgot to mention that there's essentially no change in the press statement. Now, what's your pleasure with regard to the discussion on communications? Do you want to talk over lunch or do you want to recess and come back?

MR. REINHART. What I propose, Mr. Chairman, is for everybody to go get lunch and come back to the table. When everyone settles down, I can read some brief remarks, and then we can proceed with the discussion.

CHAIRMAN GREENSPAN. Okay, that sounds good. Is that satisfactory to everybody? Good, let's go to lunch.

[Lunch break]

CHAIRMAN GREENSPAN. Let's turn to Vincent Reinhart.

MR. REINHART.³ Thank you, Mr. Chairman. I'll be referring to the material called "Briefing on FOMC Communications Policy" that Carol Low handed out while you were getting lunch. One of my favorite quotes, which offers some perspective on my work on the Committee's communication policy over the past few months, comes from William of Orange, who held that "you need not hope to undertake nor succeed to persevere." When it comes to the structure of the Committee's assessment of the outlook, I can report to the members that your Secretary has undertaken and persevered but sees little hope of success. To raise the odds just a bit, I would appreciate it if you would use the time until 2:00 p.m. to provide some feedback on a few key issues.

To facilitate that discussion, I have listed in the first exhibit some alternative ways of assessing risks. I started with the pre-March balance-of-risks language to establish that some progress in the Committee's communication has been made. The second

³ The materials used by Mr. Reinhart are appended to this transcript (appendix 3).

panel gives the current wording, the next is the proposal in my memo dated October 22, and the last is the suggestion of Governor Gramlich circulated at that same time. These panels are for your reference. What I will focus on are the four questions listed in exhibit 2. In particular, do you have a clear preference for the risk assessment among the various proposals that have circulated? If there is a basic structure identified today, then the task of homing in on specific language will be easier.

Second, in that process it would be helpful if the Committee provided guidance as to whether it wants a bilateral or a multilateral approach to arriving at new language. By that I mean that I can get feedback from the members individually and iterate on new drafting language or I can look for opportunities to schedule a discussion of these matters by the full Committee. A middle ground would be to consider charging a subcommittee with the task, but only a few members have expressed enthusiasm for that.

Third, how much importance do you place on wrapping up this issue quickly? Many of you have expressed concurrence with postponing the adoption of new language, often with the comment that you'd rather have it done right than done quickly. A countervailing consideration, however, is the observation that the economy seems to be improving, perhaps at a pace that would make you anticipate changing at least some part of the risk assessment in the near future. If so, there is a question of sequencing. Do you want to grapple with modifying the existing language to express a new tilt, or would such a transition be an appropriate time to adopt a new structure?

Fourth, when do you want to talk about this next? Looking at the calendar, there are three immediate opportunities. I could set aside time on the December 9 agenda after the policy decision to consider the matter, and you could decide perhaps not to be bound by the 2:00 p.m. deadline. I could arrange a dinner meeting on December 8, the night before that meeting. Third, this could be the subject of the discussion on the Tuesday afternoon of your next two-day meeting in late January. With any of those options, though, you might want to take into consideration how the public will react to news that the Committee is once again talking about communications, especially if you are not certain that the conversation will bring closure, at least for now.

CHAIRMAN GREENSPAN. Why don't you put each question on the table and ask for comments.

MR. REINHART. The first question is, Is there any clear preference as to the basic structure of the assessment of the outlook?

MR. GRAMLICH. Mr. Chairman, before we talk about that, could I say a word about my draft wording?

CHAIRMAN GREENSPAN. Certainly.

MR. GRAMLICH. As I've said before, I've not fancied myself a communications expert, so I do this a bit reluctantly. But the thing I'm increasingly having trouble with in our statements is that our assessments of the economy are not benchmarked. As I said in my memo, the phrase "sustainable growth" sometimes seems to mean that the economy is growing at the normal rate, but that growth could be associated with any unemployment rate. Sometimes the term means closing the output gap. In the top paragraph on page 10 of the Bluebook, Vincent actually says that if the "sustainable economic growth" sentence means this, then one thing follows, and if the sentence means something else, then another thing follows. We're dealing with enough uncertainties here without having uncertainty about what our own language means. I think we could clearly do better. With regard to inflation, describing it as rising or falling doesn't help me. I'd like to see our assessment of inflation compared with some desirable level.

So I have suggested a version that attempts to put in benchmarks. That's all it does; I tried to stick with the rest of the language as much as possible. I have received a lot of favorable comment on this by e-mail, though I won't say from whom. You can speak for yourselves today, but I think there's a lot of interest in this. I was about to offer to host a donor's conference to see if we could get the language on this right. But it may be that Vincent's procedural steps will take care of that, and I'm happy to turn this back over to the staff. However, I think a key issue is whether the Committee wants to benchmark the assessment of the economy. I very much do.

CHAIRMAN GREENSPAN. I think we have to be a little careful here because there is a prerequisite to this discussion that we don't talk about, namely how much can we rationally

expect monetary policy to do. If we believe that monetary policy has the capability of affecting the economy incrementally in all sorts of ways—to create whatever level of unemployment, GDP growth, and inflation we choose—and we can implement policies that will accomplish such objectives, then I can see announcing very explicit target levels. My problem with that type of policy commitment is that it promises far more than monetary policy has the capacity to deliver. We have to be very careful about what we set up as our goals; we need to make sure that they are reachable goals. If we say, for example, that our goal is to get the unemployment rate down to 4.6 percent with a growth rate in GDP that would close the output gap by X percent or something like that, that's all well and good. But do we actually have the capacity to accomplish that? My answer is that we most certainly do not. Now, if indeed the e-mails you're getting come from members who believe that we can, that's an important issue. We have to stay within the bounds of what we believe this Committee can do, and I just want to make sure that that is explicitly recognized before we go further.

MR. GRAMLICH. May I respond to that? I think the issue is not whether we get to full employment in some reasonable period but how our policy is structured given the way we see output relative to some objective. I see the issue as how best to say that we are trying to work in a direction of expansion or contraction, whichever the case may be, but not in any sense promising that we would achieve a goal. And I'd be perfectly symmetric with inflation. I would say that we see inflation above the level we consider desirable or below it, and therefore our policy is X. So I don't think this approach contains a promise that we will get to a goal. But I believe we can illuminate our actions by specifying the direction toward which we are working and how we are trying to influence the economy. That is frankly what I do in making decisions

when I come to our meetings. If that's what I do—and I think that's what most of you do—then it seems to me that we ought to be able to talk about it in those terms.

CHAIRMAN GREENSPAN. Indeed, I think everyone does that because we all have our own objectives and hence when we vote we make policy decisions based on those objectives. Implicitly we all do that, or else we would not be able to come to a conclusion. What I'm arguing against is the capacity of the members of this Committee to have a similar view on all of the goals. We really can't achieve that sort of unanimity—a majority determines it—because each individual member has to be free to make a final judgment on the basis of whatever conceptual framework he or she has with respect to the economy. If we all had the same conceptual framework, I will acknowledge that the proposition you are arguing would enhance our transparency. But frankly, knowing all the members of this Committee, I think we'd have trouble getting a philosophical agreement among all nineteen people on how the economy works to the degree that is required to formulate monetary policy. I'd say that would be very difficult. Governor Ferguson.

MR. FERGUSON. First, I want to start with a quote, go on to make some points, and then answer Vincent's question. Vincent opened with a quote from William of Orange, and I'll start with one from Winston Churchill, who said that in matters of communication "victory is never final, and defeat is never fatal." So I want to encourage us to keep going because whatever happens we will not get to the end point.

Second, I come from a background in consulting, and one of the first things I learned in consulting was to define the nature of the problem. That leads me to discuss a little survey that I found. The question was, Does the Fed disclose enough information about interest rate policy? Thirty-four percent of the respondents said that they felt well informed; another 34 percent

answered “yes, there was enough information but it was a little too confusing”; 27 percent said the Fed is “too secretive”; and a surprising 5 percent said that the Fed provided too much information. I don’t suggest that this survey was scientific and, obviously, if it didn’t support my point of view I wouldn’t have brought it up! [Laughter] But the reason I raised it is that I think we have to be very careful here. Although we’ve suffered criticism, boos as well as cheers, I’m not so sure that we need a dramatic change in our communications. We need a change for sure, but I’m not convinced that we need a dramatic change that may again throw the markets into uncertainty about what we’re trying to do. I would caution us, as we go through this exercise, to recognize that our communication policy is not perfect by any stretch of imagination but it’s not completely broken. So I would encourage us to think about incremental changes, if you will.

That said, let me get to the answer to Vincent’s first question regarding a clear preference as to the basic structure of our statement. On this I pick up from where Tony Santomero was in the early part of the meeting. I believe it would be very helpful in the forward-looking part of our statement for us to separate the two issues that are now combined. One part would literally be an indication of how we think the economy is likely to evolve or change—whether we think growth is picking up or slowing down and whether inflation is picking up or slowing down. That would involve just a factual statement, if you will. The second part would give some sort of value judgment or welfare assessment, whatever the term may be. I think whoever said that the nine-box matrix in the Bluebook seems to combine those two concepts was right. In my view our communication needs to disentangle them. One of the weaknesses in the earlier risk assessment—it had several weaknesses that we discovered over time—was that too many things were entangled into a relatively small number of words. So in terms of my preference as to the

structure, I'd like a structure that clearly breaks out our sense of the outlook as a factual statement versus the value judgment relating to our goals.

A second preference I have is to avoid language that is too precise in terms of specifying a variety of goals or targets. We don't have collectively a well-stated goal on unemployment, for example. I'm not sure we all share the same point of view regarding potential. We don't necessarily have the same point of view about the desirable level of inflation. We all think it should be low, obviously—probably in a range between 1 and 2 percent on certain measures—but we don't have a target that is well defined by the Committee. So I'd be quite cautious about going too far down the path toward language that implies that we have specific targets or that forces us to continue to answer questions about what exactly our goals are or what we deem acceptable. I think we have to maintain some vagueness in that regard.

The third rule I'd have in my preferences as to the structure is that it be stress-tested, perhaps using some of the nine boxes in the matrix approach that Vincent suggested in his memo. One of the problems with the earlier language was that, although we did attempt to stress-test it, we didn't foresee a period with a large output gap, inflation falling, and growth rising dramatically above potential. So the tradeoffs that were built into the old balance of risks, though they lasted for about three years, didn't last into the most recent period. I won't blame the previous director of Monetary Affairs for this! [Laughter] It would be inappropriate to do such a thing. But let the record show that he's nodding his head, supporting my comments in one way or the other! In any event, I do think that we need to take some more time and do some stress testing.

That said, for reasons the Chairman alluded to, I must say that I was drawn to Vincent's language in his memo of October 22 as an approach that perhaps could work. The last thing I'd

say about my preferences, having gone through this three-year period or so with the statement structured the way it is now, is that if we do make another change, we need to recognize that it probably won't be the last change. So I think we really should be aiming at enough stress testing—and maybe it's implied in the stress testing—to allow us to stay with the new language for longer than a three-year period. We may never succeed in doing that, but the goal of stress testing is to think of as many potential permutations as possible. I thought Vincent's nine boxes did that to a large degree. So that's my answer to the first question in terms of preferences. I have these two or three preferences, recognizing as I said that we're not in a horrifically bad position, though obviously we do need to continue to move forward on communication issues. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Mr. Chairman, I don't have a quote, but I am reminded of a life experience, which was the first time I ate a raw oyster. Somebody forgot to tell me to let it slide down. Instead, I began to chew on the darn thing, and the more you chew on an oyster the tougher it gets to swallow. I might have been closer to being ready to make some judgments on communication issues at our dinner meeting last month than I am now. If anything, it has become clearer to me that this subject is very complicated. There are more options. Ned's ideas are fascinating but raise some new questions. The discussion today raises still more. So I'm not close to being ready this afternoon to start choosing.

I may be in the minority in this view, but despite the fact that we've already talked about this issue and some ideas are on the table, I'm not sure each of us has really had a chance to put our best ideas on the table. I don't think we can do that in a one-hour dinner meeting, and I don't think we can do that in a one-hour session at an FOMC meeting. So if we can get by until the

January meeting, I have a rather strong preference for asking a small group of either principals or senior staff to get everybody's best ideas and sort through the options to a point where we can effectively work with them. That would give us some time to think this out more carefully, and we could devote a whole afternoon to discuss it thoroughly at our January meeting and try to get it as right as we possibly can. I think we'd be best served if we took that kind of time and care to try to sort some of this out. It has gotten very complicated. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, I more or less share the view that President Guynn expressed. One of the things I did in preparation for this discussion was to go back to the press release that we used in January 2000. After some considerable thought, the Committee—rightly or wrongly—put that wording together. It worked very well as far as I'm concerned. Then some special circumstances came up, and we made changes in that wording. They served their purpose but now we have some fallout from that. We ought to go back to the earlier language as a starting point—not to the language we're now using, which was put together ad hoc piece-by-piece, but back to the base. Let's think it through and see what we need to modify in that language. If it makes sense, I'd keep the structure as close to that earlier version as possible and then move forward. I would not try to figure out wording today or choose now among several options. I don't feel comfortable with any of them. I'd feel reasonably comfortable with what we had before with some changes to reflect that we're in a more stable price environment. So I agree with Jack. Maybe circumstances are changing too quickly, and we can't wait until January. But we ought to wait at least until December, think this through more carefully, and come up with some options or narrow our options at that point.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. At the last meeting I came away with the impression that what we seemed to agree on was that the directive wording and the risk assessment we voted on should be what we communicated to the public. It was important to many of us—maybe to all of us—that the communication directly reflect our vote. Is it naive, Vincent, to think that we could focus on the directive wording and the risk assessment, which we didn't seem to have too much trouble agreeing to and voting on today, and find a way for that language to be what we release? How long did it take us to agree on that wording today—two nanoseconds?

MR. REINHART. Although what you agreed on formally were instructions to the drafters of the statement. I think in the proposal—

MR. PARRY. What we agreed on is what is going to appear in the minutes.

MR. REINHART. What Normand read was from the page in the Bluebook.

MR. PARRY. Yes.

MR. REINHART. That isn't identical to what is in today's press release for the following reason—

MR. PARRY. Oh, I know that.

CHAIRMAN GREENSPAN. This is a minor issue because we can readily do what Bob is saying in that context.

MR. REINHART. The proposal was that, when you decide on a risk assessment, what you vote on would be what appears in the directive. I think everyone agreed to that. The problem for this meeting operationally was that, if you decided to adopt language that differs from what you used at the last meeting, we would not have known what the alternative would be.

MR. PARRY. Okay. Isn't the goal to get the language in the vote and the press release the same? Why should that be so difficult? Based on what I've read in the last couple of weeks,

it's extremely difficult. I don't understand why. Maybe we need an English teacher or grammarian.

MR. STERN. No maybe about that!

CHAIRMAN GREENSPAN. The trouble is that, when you run into a problem, you tend to add adjectives and adverbs to any statement.

MR. PARRY. Yes, I noticed.

CHAIRMAN GREENSPAN. And it becomes the oyster that Jack's been chewing on!

[Laughter] President Poole.

MR. POOLE. I agree with Jack that we need to do some hard background work and have an extended session in January to review where we want to go on this. One dimension of this on the table is the issue that Ned raised at the outset having to do with objectives and whether we can usefully sharpen that language. I think another very important dimension that we need to address is the extent to which we want to foreshadow or hint about the future policy direction. My own view is that whenever we regard the risks as unbalanced—I'll say seriously unbalanced just to make my point clear—we should move the funds rate right away. We should move it at the meeting when we recognize or make an assessment that the risks are seriously unbalanced. So my preference would be that we use the balanced risk assessment as the explanation for why the adjustment did not take place at the current meeting and that we never have an unbalanced risk assessment going forward—or at least not seriously unbalanced. If the risks were that unbalanced, my position is that we already would have adjusted policy. At any rate, I consider this an important dimension that we need to focus on. I don't think we can come up with the appropriate language around the table today in a situation like this but that's another aspect of our communication policy that we must spend time on.

MR. FERGUSON. May I ask President Poole a question?

CHAIRMAN GREENSPAN. Sure.

MR. FERGUSON. I agree with you, but do you not foresee a period where the risks could be unbalanced but not so unbalanced that the Committee felt it had to move immediately? In such a situation the tilt is not a hint about policy, but a sense—and this is what I think we've been doing for two years—that the risks are weighted in a certain direction though we're not so strong in our conviction that we feel we need to move policy.

MR. POOLE. Obviously there's a whole continuum here.

MR. FERGUSON. Right.

MR. POOLE. I understand that, of course. My concern is that making a statement that the risks are unbalanced and yet not wanting that to be interpreted as a hint about the probable direction of policy is a very difficult language act to pull off. I think the market routinely views the unbalanced risk assessment as a hint about or at least some probability regarding the future direction of policy.

MR. FERGUSON. I think that's true.

MR. POOLE. I'm uncomfortable doing that because my view is that the policy adjustments are primarily driven by surprises or by the new information that we can't predict. That's why I believe that providing these hints causes problems more than it helps. I'm just saying that that's something we need to discuss.

MR. FERGUSON. Right.

MR. POOLE. We need to reach some agreement on that. I'm not trying to say that we can come to an agreement here today. But I think some people want to provide that hint about

the likely direction of policy. I did when I first came here. But I've changed my mind in living through issuing these statements as to whether or not those hints are really constructive.

CHAIRMAN GREENSPAN. Governor Bernanke.

MR. BERNANKE. Thank you, Mr. Chairman. I'm happy to wait until January if that's what people want to do. I would like to express a mild preference—more than a mild preference—for Governor Gramlich's formulation. I think it's important to have benchmarks. Our current statement and both of the suggested statements have benchmarks in the terms “sustainable growth,” “unwelcome,” “desirably lower,” or “desirably higher.” So that's not the question; all of the versions have benchmarks. I like Governor Gramlich's formulation better because his benchmark for output is not whether it is growing above or below the growth rate of potential but that it has a trajectory that leads eventually toward full employment. That is a different concept, but that's really what we should be shooting for. I think that's a better way of thinking about our objective. I understand Governor Ferguson's comment about breaking the forecast and the evaluation into two parts. But in fact the statement suggested by Vincent does not do that because the forecast for output includes a reference to sustainable growth. There is explicitly a benchmark for growth, symmetrically, but there should be a benchmark for inflation in that same paragraph. To make matters more complicated, I might note that I just came from the Bank of England, and they don't issue any statement at all immediately after their policy meeting. They're very happy releasing the minutes a couple of weeks after the meeting because they think that document conveys all the subtleties of their discussion much better than a statement.

CHAIRMAN GREENSPAN. Actually, that option should be on the table. Where I have a problem with what you're saying is this. The notion that disinflation is unwelcome at this

juncture is a value judgment all of us share. As I indicated to Ned, if we all agree that the desirable level of unemployment is X, then that's in the same category. If we can stipulate that we agree on the desirable level for every one of the goals, what you're suggesting can work. I'm basically saying that we're not going to achieve that. And to try to do it when it's patently unattainable I think will waste a lot of the Committee's time. It's not that in principle it's bad. I just think it's utterly unachievable. Governor Kohn.

MR. KOHN. Thank you, Mr. Chairman. I certainly agree that we need to clarify the language, and we're not going to get it done today. We could very well make it until next January, though I think we would need to work on it in December as well and not leave it all for January.

I started by asking what our goal was, and I think I took off from where President Poole was in a sense but came to the opposite conclusion. I thought our goal was to help people better anticipate where interest rates might go. By giving them a little information as to what we were worried about, we might help them anticipate our actions a little better. I don't think all of our actions are keyed to new information, new shocks. Sometimes we're at positions where we think we're more likely to do one thing than another because of how we see the economy developing, and it's helpful to the markets to tell them that. So this is about changes in interest rates and the likely movement of interest rates. Also, consistent with what President Hoenig was saying, I think that was what the subcommittee was trying to do—as ill-served as it might have been by the then director of Monetary Affairs. We were trying to look at changes in the output gaps and in the inflation gaps that would then lead to changes in interest rates. That leads me to the Reinhart language, which to me is in that same spirit. I agree it doesn't have benchmarks in it. That to me is a separable issue. In my view we don't need to tell people what our benchmarks

are to help them see where interest rates might go in the future. We might want to tell them our benchmarks, but I think that's a separate debate.

When I looked at Ned's version, I did try to do some stress testing on it. Perhaps I misread it, but it talks about the probability that economic growth will proceed over the next few quarters at a rate consistent with the attainment of maximum sustainable employment. Then it says that "over the same period" the probability that inflation will be undesirably high is below, equal to, or above the probability that it will be undesirably low. That implies that the time reference for inflation is the next few quarters and to me that was much too short a time frame. I asked myself if I answered "equal" to both of those parts—that I thought we would be at maximum employment in a few quarters, and inflation would be equal to or above a desirable level—what would I be doing with interest rates in that situation? I think I would be raising interest rates if I believed we would be at 5 percent unemployment some time next year—or at least I would be preparing the markets for that possibility. Now, in a private conversation with Governor Gramlich he informed me that I wasn't reading his words right. But the only time reference in his formulation is "over the next few quarters." If we mean over the next few years, I think we need to say that; otherwise it implies that monetary policy will not be stabilizing but will promote overshooting. I just think the benchmark issue is a separate issue. We don't really need to do benchmarks to accomplish what we set out to accomplish a few years ago. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Mr. Chairman, the first thing I would say is, Jack, when you eat an oyster you really ought to chew it. That's what brings the flavor out. [Laughter] When I think about communication, to me what makes a communication good is that it's direct, clear, and

understandable. On that score, Ned's suggested wording has a lot to offer. It's direct, and of the alternatives that we're considering today, I think it is in some sense the clearest and most understandable. It also has an accountability dimension to it, and I like that. I find the benchmark attractive. The one issue, Ned—and we talked about this a little before—is that the use of employment as a benchmark concept is something I have to think about. I would have to get more comfortable with that. I've spent a lot of time over my career arguing for a price stability mandate. I know I'm pushing my luck here, but in that regard if we had a more explicit target—or let me say a firmer inflation anchor—I could be more comfortable with something like Ned's proposed language. I think it could work. That's about where I am on the alternatives we have before us.

I agree with Jack and Tom that we need to think this through carefully. We need to take whatever time is necessary. Certainly we can wait until January; I think the language we have now will be satisfactory until then. The other point I would add is that, once we make a decision, the decision itself may warrant a more prominent announcement than we've typically made when we've made changes in the past. We may want to release an extended press statement that lays out the reasoning as to why, for the foreseeable future, we are going to use this new language. If we are a little more communicative on that score than usual, I think that would help. That's where I am.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. In preparation for this discussion I reread the verbatim transcript of our dinner meeting last month. It was very interesting and informative. I realized how much I miss sometimes when I'm thinking about what I want to say as opposed to what other people are saying. I was one of the people who at that time did not want to change much in our statement

and for the near term I'm still in that camp. But I've come around a lot, to somewhere near where President Poole is, and I certainly agree with Presidents Guynn and Hoenig that we need to give this a lot more thought. We definitely have to say what we did and why we did it. And in saying why we took whatever action we did, we ought to give some sense of the things that concern us about the current outlook. I really question—I'm sorry, Don—the assumption that it helps the markets at all for us to go further than that and talk about the risks of various developments in the future. I'm not sure it helps them. I think it just gives them more to chew on in terms of what we said, why we said it, and who said what, and they think about that rather than doing their job in the market. They shouldn't be spending as much time second-guessing us as they are. They should be out there doing whatever it is markets do. [Laughter]

SPEAKER(?). But we're the 800-pound gorilla in the market.

MS. MINEHAN. Well, I know we're the 800-pound gorilla, but I think we should avoid a commitment about the future. We should clearly avoid any sense—and somehow try to correct the belief—that we sit around this table trying to figure out what the markets are likely to do and what we're going to say to make them do something different. The markets are going to do what they're going to do. We have to make our policy the way we call the cards. We may be right, or we may be wrong; but we should not be making policy—or even talking about policy—that's aimed at changing how the markets operate. They have to operate a bit independently of us, I think. So in the short term I think we did the right thing today. Between now and January we probably will be coming to an appreciation of the risks being more balanced. That will change the language. That will help us get out of the “considerable period” terminology. In January—my personal preference is to take a real step back and think long and hard about what the risk statement does for us. If we're convinced that it does something good, then we have any number

of formulations of language to go with. If we're not convinced, then maybe we can find a way to tell the markets that they will find out what we did and why, but we're going to stop speculating on the risks. I don't care if we use a task force in the interim. That's fine by me.

CHAIRMAN GREENSPAN. Governor Olson.

MR. OLSON. Well, working backward, I also would be in favor of taking our time on this because I do think it's important. I don't think we have any reason to rush. I found the Gramlich memo appealing but for a reason that I haven't heard stated, and that is that maximum sustainable employment and low inflation are our public policy mandate. Those of us who have been through the confirmation process were reminded of that in our confirmation hearings. I didn't look at the transcripts of the recent hearings; but I suspect that, if Senator Sarbanes or some others were there, the nominees may well have been reminded of that dual mandate. I don't see those objectives as requiring a benchmark of any more numeric specificity than what we now have.

I was involved in an exercise about a year ago with President Broaddus and others in which we reviewed our strategic direction. When we talked about the monetary policy role, we came back to that congressional mandate as the starting point. So from that perspective, Governor Gramlich's wording appeals to me. Also, I suspect that the Federal Reserve Act will not change significantly over the next few years, so it seems to me that, if we have that as the starting point, it's also likely that we could stay with such a format. I'm also an incrementalist, and I think we should not make a lot of changes. That's a component of the Gramlich memo that I find particularly appealing.

CHAIRMAN GREENSPAN. But he goes far beyond what you just said.

MR. OLSON. Does he?

CHAIRMAN GREENSPAN. He has specific numbers. We just voted on instructions to the Federal Reserve Bank of New York in which we used exactly the kind of language you're talking about. In fact that happens to be an issue on which we all agree. So we can use that sort of language. But I think Ned is trying to get something more specific than that. He's trying to put in hard numbers or get something more conclusive than a vague notion of what is maximum sustainable growth. If we all agreed on what that number was, then we could do it. But that's not going to happen.

MR. OLSON. I guess I didn't read it that way.

CHAIRMAN GREENSPAN. Ned, am I misinterpreting what you said?

MR. GRAMLICH. I think so.

CHAIRMAN GREENSPAN. Well, then tell me what I've said wrong.

MR. GRAMLICH. I don't see anything in here that commits us to any specific goal on either the inflation side or the unemployment side. This actually replaces the statement that growth has to proceed at a stable rate. All it says is that growth is proceeding at a rate that in our view is consistent with the eventual—and maybe we ought to put in the word “eventual”—attainment of maximum sustainable employment. I don't think we have to say what that level of employment is, and I don't think we have to give an inflation target. We could, as Al suggested. But the way the statement is written I don't think we have to. I intentionally wrote it in a way that we could avoid giving specific numerical targets.

CHAIRMAN GREENSPAN. Well, the question is whether in fact in the real world that is capable of being achieved.

MR. GRAMLICH. Yes, that's an issue. Believe me, I understand that.

CHAIRMAN GREENSPAN. Okay, I withdraw my negative comment. President Moskow.

MR. MOSKOW. I'll make a different negative comment then, Mr. Chairman. I am concerned about having a maximum sustainable employment objective. I don't really mean that it's not an objective—obviously we all agree that it's in the statute—but I would not put it in the statement. I find it difficult to envision a circumstance in which we would ever want to say publicly that economic growth will proceed over the next few quarters at a rate above that consistent with the attainment of maximum sustainable employment if the latter is falling short of our objective. I don't think we're ever going to want to say we're against more employment. It puts us in a very awkward position, quite frankly. I think the term "growth" has served us well over many years, and I personally like the term "growth" better here. Also, I used to work in the Labor Department, so I'm very sensitive to the employment and unemployment part of our mandate.

Let me turn to the process side, which is the subject I really wanted to make most of my comments on. I think we've had some very good suggestions today. As I view this going forward, it is worth looking carefully to see if we can craft language that we're comfortable with that would be a formulaic approach, which is essentially what we have now. I'd prefer a formula where there are a certain number of options and we pick one at each meeting. I think we want to change the language, although it's going to be difficult to do given the differences of opinion. But it would make our decision on the language a lot easier at each meeting if we could find a formulaic approach. I think it's worth the effort, and I like the idea of having a task force that will come back to us with some options or recommendations. I also agree that the other option

that we discussed before and rejected, namely the earlier release of the minutes, is another approach that we should consider.

CHAIRMAN GREENSPAN. That would solve a lot of problems.

MR. MOSKOW. That's right; and we could just drop this language completely. I think it's worth seeing what the logistics of an early release of the minutes really are. We talked about that possibility, and I know it would put a lot of pressure on the Board staff to draft the document and on all of us to review it. But I think it's worth going through a timeline in detail to see what would be involved, and we can determine if we are willing to commit to getting the minutes out in two weeks or three weeks or whatever the appropriate interval would happen to be. I don't think we can do what we need to do on these communication issues around this table with nineteen people. In my view, we ought to have a separate group work on it and come back with recommendations. I think that group has to get input from everyone on the Committee so that each of us has a chance to convey our views. We're probably going to have to have several discussions as a Committee once that group reports to us.

CHAIRMAN GREENSPAN. The obvious problem is that if we release the minutes earlier we'll find that the whole Committee is going to want to get involved in editing them. Theoretically, in my judgment, earlier publication of the minutes is the ideal solution to our communication dilemma if we could find a way to ensure that we can produce a document that is comparable in terms of quality to what we do now. I don't know what types of comments Vincent gets on the draft minutes. But looking at the changes, there are very few. If that indeed is the kind of document we would get two weeks after the meeting, we could consider it the major vehicle for communication. I think the value of that is overwhelming compared with our

mincing the language the way we're trying to mince it in our press release. Maybe we ought to think of a way to do that.

MR. PARRY. We have to address the issue of whether we would get the same kind of product as we do now.

CHAIRMAN GREENSPAN. Yes, that's correct. That's the issue. Nevertheless, the minutes are not bad now. I think they do describe conceptually what we are doing.

MR. REINHART. Mr. Chairman, in answer to President Moskow's question, I would make one observation. The Bank of England is the model for this approach, and they get their minutes out in two weeks. They also have the advantage that everybody in the policy group is in the same building, so they sit down and devote a half-day to editing the minutes line by line. The original assumption with regard to the January discussion on communications was that we'd have this issue of the statement behind us by then. Our intention was to talk in January about the early release of the minutes and an expanded use of the central tendency forecast. The forecast would have a big role in the process because the forecast appears in the minutes and if the minutes are out earlier, the forecast will be, too. The staff is preparing two documents related to that. Right now the communication agenda is rather crowded, and any guidance as to sequencing would be helpful.

CHAIRMAN GREENSPAN. If we could find a way to group the members into a constant alignment of similarly minded people, each group could assign one person as a representative to the editing committee. Then we could have a small group of people sitting around editing. I wouldn't suggest that that's about to happen.

MR. REINHART. I think your next Secretary, Mr. Chairman, will have a challenge.

[Laughter]

MR. POOLE. Would the proposal be not to have any statement after a meeting even if we change policy? Would we let everything ride until we publish the minutes? If we're going to have a statement anyway, we're still going to have a struggle with the wording of a statement.

MR. MOSKOW. I would drop the balance of risk part and have the statement be only this first paragraph regarding what we've done.

CHAIRMAN GREENSPAN. We'd stipulate what action we took.

MR. POOLE. Well, that's easy, if there's no explanation.

CHAIRMAN GREENSPAN. There's going to be an explanation, two or three sentences.

MR. MOSKOW. There will be an explanation but not a balance of risks statement.

MR. GRAMLICH. Yes, we'll have just the first paragraph of the press release but not the second paragraph.

CHAIRMAN GREENSPAN. Yes.

MR. GRAMLICH. By the way, as author of the eloquent version of the second paragraph, I would be perfectly happy to have that all supplanted by the minutes if there is a way to do it.

CHAIRMAN GREENSPAN. Well, we really ought to explore that.

MR. REINHART. We are preparing a document on the early release of the minutes.

CHAIRMAN GREENSPAN. Why don't you try to do the minutes earlier for this particular meeting? [Laughter] This is the easiest meeting for which you'll be able to do minutes. It will give you the baseline of how close you can get to an actual implementation of the early release option.

MR. POOLE. Is this the stress test? [Laughter]

MR. REINHART. Of whom?

MS. MINEHAN. Count the years to retirement, Vincent!

MR. MCTEER. The minutes could say, "Following lunch, a vigorous discussion ensued with respect to communications." [Laughter]

CHAIRMAN GREENSPAN. We're running out of allocated time at this particular moment. May I suggest, in order to move this process forward, that in conjunction with the Secretariat, we will appoint a committee of Governors and Presidents—an estimable group if they wish to join—and see whether or not we can at least narrow this down. We actually narrowed it down some today. It appeared to me that, if we could find a way to solve the problem of drafting and editing the minutes more quickly, that solution of releasing the minutes earlier would carry the day in this Committee. Am I correct in that?

SEVERAL. Yes.

CHAIRMAN GREENSPAN. But there are problems in doing that. Maybe we can learn some things from the British experience and find a mechanism that will enable us to succeed in accomplishing that. One possibility—I'm just throwing ideas out in the air—is that at the late January meeting, when we vote on a number of things, we could vote on an editing committee. In other words, we could appoint a subgroup of this Committee that for the coming year basically would be charged with the drafting requirements of the minutes. The interesting point about that is that to make it work we cannot go back to the full FOMC for a decision on the minutes because if that happens then it becomes a wholly indeterminate process. I'm just throwing out that possibility. There has to be some constraint on the exercise of democracy in this group if we're going to achieve this goal. The question is what constraints we are willing to impose on ourselves. Currently we all have the opportunity for a complete input. It is true statutorily that only twelve of us can vote, but that has scarcely been evident in the discussions

within this Committee. If somebody has a good idea even if he or she does not have a vote, that idea may weigh more heavily in the final deliberations than the comments of someone who is a voting member. So I think we've got to do something along the lines I suggested.

May I have the Committee's acceptance of a notion to set up a subcommittee or working group that will move forward on this subject from where we are? Perhaps when there is something to report Vincent could send out a note. And the conclusion of that note may well be that we ought to have a phone conference. Incidentally, we now have a videoconferencing system. It worked very well at the Dallas meeting. Why don't we do videoconferencing FOMC calls? Is there a reason at the moment why we wouldn't?

MR. REINHART. I don't know the answer to that, Mr. Chairman. I suspect it's related to the fact that the tape recording equipment is in this room. But that is something that we can address.

CHAIRMAN GREENSPAN. I venture to say that there's a solution to that. We are approaching the bewitching hour, and to make sure that Michelle does not tell a falsehood about when our meeting ended, we're going to have to bring this session to a close. Regrettably, I have on my list five people who wanted to speak and were not able to do so. But if there is a next meeting on this, the five of you will get priority even if you've forgotten what you wanted to say! I'll give the list to the Secretary. With that, the meeting is adjourned.

END OF MEETING