

Meeting of the Federal Open Market Committee
September 30, 1997

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, September 30, 1997, at 9:00 a.m.

PRESENT: Mr. Greenspan, Chairman
Mr. McDonough, Vice Chairman
Mr. Broaddus
Mr. Guynn
Mr. Kelley
Mr. Moskow
Mr. Meyer
Mr. Parry
Ms. Phillips
Ms. Rivlin

Messrs. Hoenig, Jordan, Melzer, and Ms. Minehan, Alternate
Members of the Federal Open Market Committee

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

Mr. Kohn, Secretary and Economist
Mr. Bernard, Deputy Secretary
Mr. Coyne, Assistant Secretary
Mr. Gillum, Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Baxter, Deputy General Counsel
Mr. Prell, Economist

Messrs. Cecchetti, Goodfriend, Eisenbeis, Hunter, Lindsey, Promisel,
Siegman, Slifman, and Stockton, Associate Economists

Mr. Fisher, Manager, System Open Market Account

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

Messrs. Madigan and Simpson, Associate Directors, Divisions of Monetary Affairs and Research and Statistics respectively, Board of Governors

Messrs. Alexander, Hooper, and Ms. Johnson, Associate Directors, Division of International Finance, Board of Governors

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

Mr. Varvel, First Vice President, Federal Reserve Bank of Richmond

Ms. Browne, Messrs. Dewald, Hakkio, Ms. Krieger, Messrs. Lang, Rolnick, Rosenblum, and Sniderman, Senior Vice Presidents, Federal Reserve Banks of Boston, St. Louis, Kansas City, New York, Philadelphia, Minneapolis, Dallas, and Cleveland respectively

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

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CHAIRMAN GREENSPAN. Good morning, everyone. Would somebody like to move approval of the minutes for the August 19 meeting?

VICE CHAIRMAN McDONOUGH. So move.

CHAIRMAN GREENSPAN. Without objection. Peter Fisher.

MR. FISHER. Thank you, Mr. Chairman. I will be referring to the four pages of colored charts in front of you under the Class II cover.¹ On the first page are current 3-month deposit rates and 3-, 6-, and 9-month forward, 3-month deposit rates that for the United States are shown in red, for Germany in blue, and for Japan in green. Looking at the U.S. forward rates, you can see that there has been relatively little net change since the Committee's last meeting. Indeed, after rising during August, the forward rates are now back to around their levels at the time of the August meeting and almost back to the recent lows they reached at the very end of July. The single biggest decline in U.S. forward rate expectations came on the release of the August CPI on September 16. That followed a smaller decline the prior day after the retail sales and the PPI data for August were announced. Looking at these rates going back to late March and given their recent declines, I see relatively little, if any, pricing in of expected further action by the Committee in the months ahead.

Looking down to the German forward rates shown in blue, you can see that the rise in German rate expectations that began earlier in the summer has continued. While both German and some other European data have been somewhat firmer, I believe the bigger impact on German rate expectations has come from the rather loud whisper campaign that the Bundesbank has directed at financial markets. The message in effect is that in order for the European monetary union to work, German and Italian short-end rates will have to meet somewhere in between their current levels. With the German short-end rates now around 3 percent and Italian short-end rates around 6 to 6-1/2 percent, this implies a 150 basis point rise for Germany and a 150 basis point decline for Italy. The rather public whisper campaign has been driving German rate expectations up, and you can observe on the right side of the chart the rather pronounced upward shift following the ECOFIN meeting the weekend of September 13 and 14.

Looking at the Japanese forward rates in the bottom panel, you can see that the various forward rate maturities have continued to collapse on top of

¹ Copies of the charts used by Mr. Fisher are appended to this document (Appendix 1).

the current rate. The release of the 11.2 percent (annual rate) decline in second-quarter GDP added to the gloom in Tokyo. Rather than try to parse out the green muddle of rates at the bottom of the chart, let me observe that the 9-month forward, 3-month yen deposit rate now trades at 3 basis points over the overnight Libor rate. The JGB benchmark yield has traded down to 1.86 percent in the last couple of days. These relative shifts in interest rate expectations have had a fairly predictable impact on exchange markets, with the yen depreciating about 2-1/2 percent and the mark appreciating about 5-1/2 percent against the dollar since August 1. I think this impact on the dollar-mark exchange rate is precisely what the Bundesbank had in mind when it engineered its whisper campaign.

Turning to the second page, you can see that recent developments had a somewhat more complex impact on bond markets. The four panels on this page depict the basis-point changes since July 1 in 9-month forward 3-month deposit rates implied by the FRAs and in 10-year government bond yields. In the upper left panel, you can see the story of U.S. interest rate markets as the red lines move across the chart. We had the rally in July followed by the upward spike in early August. There was little net change subsequently until the more recent rally associated with the release of the August price data during September. In the top panel for Japan on the right, the persistent decline in Japanese rates, both for 10-year bonds and forward interest rate expectations, is evident. In the bottom left chart for Germany, we see a different pattern of interest rate movements throughout the period. The 9-month forward 3-month deposit rate has risen by 72 basis points since July 1, while the 10-year bond has traded more or less sideways; it rallied a little in September, declining 18 basis points in yield.

The truly dramatic impact of the Bundesbank's whisper campaign was felt in Italian interest rate markets where participants heard the Bundesbank to be saying three things: First, the Bundesbank would be raising rates. Secondly, the Bundesbank was so convinced that Italy would be in EMU that they were prepared to act on that basis. And third, the Bundesbank thought it would be an EMU-friendly act for the Bank of Italy to lower rates 150 basis points. As shown in the panel at the bottom right, the 9-month forward 3-month lira deposit rate declined by 125 basis points from the beginning of August through last Friday and there was a similar decline in the 10-year bond yield. One of the questions that have come out of this experience is how to explain the stability in long-term German interest rates. From Frankfurt, the markets have heard that when central banks with real credibility threaten to raise rates, the long end of their yield curve

remains stable or rallies. And much to my surprise, a great number of market participants have adopted this view as their own. There is an alternative view to which I am somewhat partial. It begins by noting that over the last several years the Bundesbank has been of the view that the long end of their yield curve has followed the lead of the U.S. and the global bond markets, and it has not really followed expected changes in short-term German interest rates. The pattern of the solid blue line for Germany does have some echo of the solid red line for the United States. One could also note that relative to U.S. and Japanese 10-year rates, German rates have backed up by 25 basis points since the beginning of the summer. So, I think there is some excitement yet to play through in European bond markets as we move forward toward EMU.

The third page of charts shows percent changes in equity indices for the second and third quarters of 1997. I have included that chart to make two obvious points. First, equity markets were somewhat more volatile in the third quarter than in the second. Also, there was a much greater diversity of outcomes in the third quarter. That is true globally and also if we look at some of the internal comparisons. For example, the NASDAQ performance was quite different from that of the Dow. The Milan MIBtel, the German Dax, and the French CAC all had quite different outcomes and, of course, the Tokyo Topix and its construction sector, reflecting the Japanese domestic economy, also turned in rather different performances than other equity indices.

Turning to domestic open market operations, the daily effective federal funds rate averaged about 5.55 percent over the intermeeting period, a little higher than the intended rate. This outcome reflected principally a few days of elevated funds rates. I'm not going to take you through all the detail on these charts, but I did want to make a point. The vertical blue lines in the top panel show the daily range of federal funds trading; the horizontal red lines are the daily effective rate; the vertical red lines represent one standard deviation in the volume of federal funds trading each day and give a sense of the concentration or dispersion of funds trading. The middle panel shows our misses, that is, the actual level of free reserves less the intended level; the yellow bars indicate negative misses and the blue bars show positive misses. In the bottom panel, you see operating balances as they occurred each day.

My reason for showing this chart is to focus on three days in September on the right hand side of the page--the 15th, 16th, and 17th--and to point out that neither changes in operating balances alone nor even our misses of some size really tell us everything we might want to know about what drives volatility in the federal funds market. The 15th, 16th, and 17th were corporate tax payment dates. On the 15th, you can see that we had an elevated effective rate on the day but a very narrow effective range, as

market participants priced up for the pressures they anticipated and traded funds in a very narrow range. However, looking at the middle panel for the 15th, we had a rather sizable miss of \$2 billion on that day. Even so, we had a relatively contained federal funds rate. On the 16th, the effective rate was right on the target at 5-1/2 percent. The one standard deviation trading range was somewhat wider on that day, but we again had a miss and, if you look at the bottom of the page, a very low operating balance. In fact, we almost hit the historic low operating balance, but we did not have a terribly volatile day or upward pressure in the funds market. The next day, the 17th, funds traded over a quite wide range at rates up to 15 percent and the one standard deviation volume of trading was much wider. We had a very large miss and again a low operating balance.

The difference between the 16th and the 17th was in the distribution of reserves, with the need falling on the large regional banks whose behavior pattern tends to be to bid up the funds rate. So in this case, the behavior of those banks determined the volatility of the funds rate a great deal more than the level of operating balance or even the size of our miss. I do not want to overstate that, but I think it is a significant point to emphasize. The level of the operating balance is not the only factor.

Since your last meeting, we have conducted two legs of outright purchase operations, both in the coupon sector. The bill market remains quite tight, and I have been reluctant to enter that market. So, I expect to continue to operate in the coupon market. There is some possibility that with the new fiscal year the Treasury will be issuing a larger amount of bills and we will be able to return to bill purchases.

Mr. Chairman, there were no foreign exchange operations for the System account during the period since the August meeting. I will need the Committee's ratification of our domestic open market operations. I would be happy to answer any questions.

CHAIRMAN GREENSPAN. Questions for Peter?

MR. BROADDUS. A quick question, Peter. It seems to me that our key concern about intra-day funds rate volatility would be the possibility that we would give the wrong signal to markets. I have not had the sense that anything like that has been happening lately, but you may have a different impression.

MR. FISHER. No, I do not. I think the market understands as well as any of us the implications of low operating balances and how they may foster market volatility on some days.

So, no, I don't think such volatility has had any effect on policy expectations. Don and I have worried that it might at some point. I don't want to make too much of this, but we are making an effort to refine our ability to measure volatility so that we can provide the Committee with a better basis for judging and deciding whether this is something it should care about.

CHAIRMAN GREENSPAN. Peter, the numbers look quite good in terms of confirming your hypothesis about the rate objectives of the Bundesbank and the Bank of Italy. I had always thought that the Bank of Italy, specifically the Italian government, would have been far more interested in having their rates converge with the German rates at the bottom of the maturity curve because, as you know, their budget is financed through short-term instruments and lower short-term rates would do wonders for their fiscal position. Nonetheless, I suspect that the implication of the German action, which is essentially saying that they will not resist Italy's joining the EMU, may be the real driving force here. Have you spoken to anybody at the Bank of Italy to get a sense of whether in fact they were focusing more on German acquiescence in Italy's EMU entrance or whether they were in a sense somewhat disturbed by the fact that the Germans seemed to be pushing their rates up?

MR. FISHER. I have spoken with people at the Bank of Italy, the Bank of France, and some other European central banks. For the Italians, there is a hierarchy of objectives. Getting into EMU is the first, the second, and the third objective! So, I think they are prepared to pay some price for EMU membership. If they cannot get their rates all the way down to match German rates, they are prepared to go half-way. Now, most people in the market anticipate another interest rate reduction from the Bank of Italy once the Italian budget passes. I believe that may occur in coming weeks, and there may be one or even two Bank of Italy actions before year-end in light of the Bundesbank's implicit announcement that short rates ought to converge somewhere in the middle.

The Bundesbank's comments fell on very fertile ground in the markets. They seemed to be waiting to see when something might happen, and they got a pre-blessing out of Frankfurt. It seems clear that people in Europe wanted to see rates converge on the low German rates and felt a certain reluctance to suggest that the convergence be somewhere in the middle of current rate levels. On the plus side, one reason the German action can be seen as positive is that it is creating a greater flexibility for the new ECB when it comes in. People previously had been assuming that the ECB would simply pick up whatever repo rate was set by the Bundesbank and that would be that. This has introduced an element of uncertainty.

On the other hand, I think the French are the ones who will really feel they have been misled. They went through the pain of getting their rates all the way down and having them converge on the low German rates. Now they hear that they will have to suffer the pain of going half-way up to meet Italian rate levels, and they do not think that was the understanding. That is painful for them. There are two ways to think about this "meet-in-the-middle" story. One is in terms of mood music: it sets a positive tone and gets the process going. But if it is taken literally, I think it can be quite toxic. You can fix exchange rates and let interest rates float or you can fix interest rates at the short end and let exchange rates float. Trying to fix both in advance of the EMU event is a high-wire act.

CHAIRMAN GREENSPAN. Yes. Any other questions for Peter? If not, would someone like to move to ratify the domestic operations?

VICE CHAIRMAN McDONOUGH. So move.

CHAIRMAN GREENSPAN. Without objection. We turn now to Mike Prell.

MR. PRELL. Thank you, Mr. Chairman. It would not surprise me if many of you found the tale of the staff forecast in the Greenbook more tortuous than usual. Preparing the forecast and then writing it up proved to be a considerable struggle for us this time.

Perhaps we engaged in more soul-searching than was really required, but we found ourselves with what seemed like a complex task. We had to contend with the fact that as we were at work, financial markets appeared to be in the grip of new era fever and stock prices were moving ever further above, and bond yields ever further below, where we had anticipated they would be. We also had to explain why we were raising our forecast of near-term growth again, as well as why we thought moderation would yet be coming. And we had to explain why, though we were lowering our inflation forecast again, we still expected prices to accelerate in coming quarters. I will try to run through some of the highlights of our thinking as quickly as possible this morning.

First, on the new era, we do not have any problem with the notion that a good many things have changed in the world. There have been some marvelous technological advances that offer the potential for productivity gains. The emergence of new market economies around the world has unlocked vast amounts of underutilized labor resources. There has been a lowering of barriers to international trade and capital flows. There have been gains in competition and efficiency through domestic deregulation and restructuring. Also, today's labor market is marked by less unionization and by more flexible approaches to compensation.

Of course, one may observe that these phenomena generally involve rather gradual processes, most of which have been in train for some time, but perhaps there has been some harmonic convergence that is yielding magnified effects recently. In any event, the practical question is what to make of these observations when we attempt to prepare a forecast that may be helpful in framing monetary policy. The new era advocates say the economy can grow faster, with lower unemployment, without generating inflation. If they are simply talking about higher trend productivity growth or lower NAIRUs, this doesn't suggest the need for a new analytical paradigm. But they sometimes seem to be claiming that aggregate supply and demand will always be in non-inflationary sync, even if the government's statistics do not always show it. Monetary policy seemingly is irrelevant in this self-regulating state of perfection. You can dump the staff and take an indefinite vacation. [Laughter]

If I were not well shy of retirement eligibility, I might be more receptive to this view. But, I suspect that most of you share at least some of our skepticism. Under the circumstances, we feel much more comfortable taking the most relevant and persuasive aspects of the new era view and incorporating them in our model--one in which supply-demand imbalances can occur and give rise to inflationary pressures that can be modulated by monetary policy. This is, in effect, what we have been doing all along.

So, with that prologue, what tendencies do we think are facing you in the economy today? As you know, we believe the economy is still running pretty hot. Exports have been zipping along with remarkable strength. And, though last Thursday's report on capital goods orders was a bit weaker than we anticipated, it didn't undermine our assessment that this sector of the economy is still on a steep uptrend, paced by demand for computers and communications equipment but with fairly substantial demand elsewhere, too. The growth of these sectors and the massive gains in stock market wealth are providing consumers with the wherewithal to spend, and they are doing so. Indeed, judging by yesterday's monthly PCE release, they are doing so to an even greater degree than we thought. In light of those figures and the other late-arriving data, we would now place likely third-quarter GDP growth in the 3 to 3-1/2 percent range.

We continue to think that the levels of some types of household and business investment expenditures are high enough that stocks might soon begin to get out of kilter with income and output trends if there is not some deceleration in inventory accumulation. And we believe the rise of the dollar has been large enough to damp export growth and raise import penetration further in the period ahead. But, these are far from a sure thing--certainly in terms of timing and dimension.

Booms generate a momentum of their own, and like others, this one is being supported by a degree of financial exuberance. In fact, it is our assessment that, more likely than not, financial restraint sufficient to rein in the excess demand we see will be achieved only with a decisive enough monetary policy jolt to shake the market's current euphoria. Whether the percentage point hike in the funds rate in the forecast is the right dose, we obviously do not know for sure, but if our analysis is correct, something noticeable probably will be required.

The other part of the analysis is, of course, our judgment that we can't depend on productivity increases large enough to sustain such rapid growth of output and that the Phillips curve is not dead. It is somewhat disfigured, perhaps, but not dead. On the productivity front, as we suggested in the Greenbook, there may well be room for optimism regarding the outlook for growth in output per hour. Among other things, despite all the complaints about the quality of available workers, measured productivity performance has improved of late. We are skeptical of the new era view that firms always have another productivity trick up their sleeves to offset any cost increase--but it could be that the high-tech investments are now having a more significant payoff, and we have taken a somewhat more optimistic view of productivity prospects.

As for the Phillips curve, we believe that compensation practices probably have changed in ways that may temper the short-run response of

overall pay structures to tight labor markets. On top of that consideration, we also have the apparent divergence of the degrees of labor and factory utilization. This might be viewed as part of the new era--the perfectly elastic and immediate supply of plant and equipment as needed to meet demand. Our projection of moderate capacity utilization argues, we think, for some restraint on inflation relative to what might be implied by labor market conditions. Similarly, in the near term, the legacy of recent low inflation and a seeming convergence of expectations on continued low inflation bodes well for the sustained moderation of compensation increases.

How far to carry these arguments in recalibrating one's model of the inflation process is a difficult judgment call. We do not think they eliminate entirely the risk of an upturn of inflation if labor markets remain as taut as they are now, let alone get tighter, as we are projecting. Moreover, there are a couple of other special factors that reinforce the likelihood of a steeper rise in prices going forward.

One of them is the possibility that employers will face significant increases in premiums for health insurance. In this regard, I might note that, at the end of last week, it was announced that the premiums in the Federal Employees Health Benefit program will be rising an average of 8-1/2 percent next year. We have not had the opportunity to research this development adequately, so I am not sure that this is a clear sign that the pressures in this sphere will be greater than we anticipated in our forecast. It is a worry, however.

Finally, in looking at the inflation outlook, we think it is important to consider the prospects for the dollar. Estimates of the effects of the dollar appreciation and the associated decline in import prices vary considerably, but they certainly have been a significant factor tending to trim domestic inflation in the past year or two. An advocate of the new era might say that a strong dollar is just a natural and lasting result of the reaccommodation of the United States in the world economy, but with the probability of a growing external deficit, we find it hard to swallow the concept that we should be anticipating another 20 percent rise in the dollar over the next two years. It could happen, but we are betting against it. Without that influence --indeed, with the possibility of some reversal of the dollar--containing inflation is going to be more difficult.

Totting up all these considerations, we have core inflation accelerating only a couple of tenths per year through 1999 despite continuous sub-five-percent unemployment. That rate is, to be sure, damped a couple of tenths by technical changes to the CPI. But, especially given the expected abatement of favorable exchange rate effects, the forecast does fall somewhat short of what might normally have been anticipated simply on the basis of the excess demand for labor--say, if one simply applied a

conventional "sacrifice ratio" to the unemployment gap relative to a 5-1/2 percent NAIRU.

We think that we have been judicious in adapting to the incoming evidence and in taking account of alternative explanations for the surprises we have experienced. In the end, despite our flirtation with the new era view, our forecast conveys a rather clear message that the risks are tilted toward higher inflation in the absence of some restrictive policy action. But, I would have to say that this is truly a period in which the outlook is characterized by the proverbial "unusual degree" of uncertainty.

CHAIRMAN GREENSPAN. Questions for Mike?

VICE CHAIRMAN MCDONOUGH. I think Mike's oral presentation adds a good deal of clarity to the ideas behind the Greenbook forecast. There are a couple of things there, however, that strike me as somewhat inconsistent, and perhaps you could clarify this for me or the rest of us. We have a rather high real interest rate now and that rate makes carrying inventory expensive. This may be one of the reasons why inventories have been kept rather low. If we cranked up the federal funds rate by 100 basis points as assumed in the Greenbook forecast, we would have a real interest rate of about 4 percent and that would make carrying inventories hugely expensive. I would like your view of the likelihood that such an increase in the real rate would bring about a much greater inventory correction than you have in the forecast.

The other thing that strikes me as somewhat inconsistent is the relationship in the forecast between the 20 percent correction in the stock market and the behavior of long-term interest rates. I think that if you assume any kind of wealth effect coming from an "I-am-scared-to-death" 20 percent correction in stock prices, especially if the latter were to occur relatively quickly, the flow of funds would be from the stock market into the bond market and instead of the long-term interest rates going up as in the forecast, I think one might expect them to come down. Those are the two things in the forecast that appear to me to be somewhat inconsistent.

MR. PRELL. Those are very interesting questions. Perhaps the relatively high real rate of interest in recent years, particularly if it is measured in terms of the prices of goods, say the PPI, may have something to do with why we see a downtrend in inventory-sales ratios. Another factor, of course, is the better information systems that firms have to work with. Going forward, we do project a substantial deceleration of inventory investment from what we have been seeing recently. The level of the inventory-sales ratio remains historically low in our forecast. I think firms will still find that markets are not so loose, even given our capacity utilization numbers, that they feel they can avoid the need to have some precautionary stocks on hand. But, yes, there is always the potential, especially when we are anticipating that final demand will be decelerating and perhaps surprisingly so over the coming year, that inventories will get out of line at least temporarily. That would lead initially to a period of somewhat greater inventory accumulation than we have in the forecast but that would be followed by a swing down toward a much lower rate of accumulation, and it would introduce a bit of a cycle into the outlook. Whether inventories in our forecast are too high on an average basis given these real interest rates is an interesting question. I don't think I have much more that I can add on this question. It is certainly something that we are aware of.

On the stock market correction question, there is something of a chicken and egg problem. The same sort of thought has occurred to me; we may have some shifting of the risk premia in the market. But there is a consistency in the forecast, at least in the sense that one reason why we anticipate the stock market decline is the rise in interest rates. That rise will require a higher discount rate in the stock market valuation formula. If we did not get that interest rate adjustment at least initially, we wonder whether the negative earning surprises would be enough to create this kind of decline in stock prices. So, it may be a timing issue; we may see some swings involving a flight to security and to fixed-income instruments. It is not inconceivable that the

enthusiasm about prospective stock market returns has been a factor that in essence has raised yields across the board on various types of financial instruments. Why would I invest in a bond that yielded only 4 percent when I think I can get a much higher return in the stock market? If the expected returns in the stock market go down, perhaps we will also have some effect on the bond market. But I think we would see this in significant measure as a change in the equity premium in the stock market so that people will require a higher expected return relative to those on bonds.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I think you answered my question in part, Mike. It also relates to the Greenbook assumptions of a one hundred basis point tightening in 1998 and a 20 percent stock market correction. My specific question was whether you are assuming that same stock market correction in the "no change" scenario. More generally, is the stock market correction independent of the course of monetary policy?

MR. PRELL. The "no change" scenario that we have included in that model simulation clearly would imply a higher level of stock prices than in our baseline forecast. That better stock market performance results from the strength of the economy that helps to sustain profits, and it works through the discount factor in stock price valuations. So, the wealth effects are more favorable to consumer demand in the alternative stable interest rate scenario. Our feeling is that there is certainly the potential, simply on the basis of disappointment in earnings growth, for stock prices to fall off some. We see the tightening of policy, and the shift in expectations that that causes--and the related tendency for bond yields to back up--as an important factor in explaining the timing and dimension of the stock market decline we have in the forecast.

MR. MOSKOW. Thank you.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mike, the ECI forecast in the Greenbook has an increase of just a couple of tenths over the forecast period. There is reference in the Greenbook to the fact that the increasing role of bonuses and other incentive payments may be having some influence in moderating measured increases in employment costs. You mentioned in your oral presentation that medical premiums may be rising significantly. We, too, hear a lot about the possibility that medical premiums will be going up considerably in 1998. It seems to me that in your ECI forecast there is almost an implicit flat-to-down path for wage and salary increases. Do you think the risks are fairly symmetrical in that forecast? Are there factors that I am not taking into account that could moderate the increase in medical premiums? The latter seems likely to be very large.

MR. PRELL. Let me mention a couple of things: One, we did build in only mild accelerations in wages and salaries and in total benefits, and we incorporated a rather modest upturn in the cost of medical benefits relative to some of the stories we have heard. To some extent, we have to consider whether we are looking at the gross increase in the cost of the medical benefits or whether they are the net cost the employer is going to incur. Certainly, many larger companies in the last year or two have been talking about how their philosophy has shifted to viewing the health insurance benefit as a defined contribution arrangement rather than as a defined benefit. So, they are looking for ways to pass along the rising cost to the employees by restricting benefits or increasing the out-of-pocket expenses that the employees will experience. In light of the seeming confirmation of some of the scarier stories and the recent federal employee health benefits announcement, our faith is a little shaken that we have allowed for enough of an increase. I would say that we do not see compelling evidence that one should write the step-up off as something that will be offset through lower wage increases. The evidence that that will be the pattern in the short

run is rather shaky. In this tight labor market, I think there is a clear risk of more overall compensation inflation than we are projecting.

The final point I would make is that, in this forecast, as measured in product prices--and we think this highly relevant--the increases in compensation are sizable in real terms and they are growing faster than trend productivity. So, in this model, workers are doing reasonably well because of the benefits of low price inflation. Now, whether this is the dynamic that will prevail in this kind of environment is a matter of conjecture. We have been struck to date by how, in the face of lots of stories about tight labor markets and employers undertaking to pay particular workers more in one way or another, we really have not seen an acceleration in labor costs. It may be just around the corner, and we may have to reverse course in the sequence of revisions we have been making in the forecast.

MR. PARRY. Thank you.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. Thank you. I always pay special attention to September Greenbooks because they give us that extra year in the forecast horizon to think about.

MR. PRELL. I might just remark that since this is the first time we have formally done a forecast for 1999, it probably is a little shakier than it might otherwise be.

MR. JORDAN. But September forecasts are nonetheless useful. A year ago in September, I looked at the projections and noted that nominal spending was increasing at a rate of around 4-1/2 percent and not much progress was being made in the direction of reduced growth. This forecast pulls down nominal spending growth by a full percentage point by the end of 1998 compared to the previous forecast, but it also runs growth out in 1999 at a rate of around 3-1/2 percent. I find that interesting, but I need to know how it is coming about. As I understand it,

Mike, your baseline assumption is that starting perhaps 6 months or so from now the Committee will raise the federal funds rate by 100 basis points over the course of next year, presumably in $\frac{1}{4}$ percentage point steps. That is more of a total increase than you were previously assuming. I would imagine that, as a general principle, the longer we delay taking any kind of policy action, the more policy action you assume we will have to have to get the same result. In comparison with your assumption of starting to raise the funds rate in 6 months to produce the Greenbook forecast result, assuming we like that result, what kind of tradeoff in timing versus amount would you have in mind if we started to tighten policy now? How much less of an increase in the funds rate might we need in total to produce the same Greenbook forecast through 1999?

MR. PRELL. I do not have a model simulation in my pocket to give you a quantitative answer to that. I think that a series of policy moves that raised the federal funds rate 100 basis points by next March instead of one that only started to raise the funds rate next March would probably lead to circumstances that would encourage the Committee to think about reversing course by 1999. The reason would be to make sure that, as we moved out of 1999 and into 2000, monetary policy was not holding down the level of output so much that more slack ultimately would be created than was needed to achieve a gradual moderation in the expansion and a return to a flat-to-descending inflation path. Another way of approaching this policy adjustment would be to start the process earlier and move more gradually to get to the same point. You basically are talking about shifting the process forward with about as sharp a total increase in the funds rate, and I think that approach would create a greater likelihood that you would have the opportunity to reverse course, say, in 1999.

MR. JORDAN. So your view is not that we do less in total, but that we would start to reverse it sooner?

MR. PRELL. As a first approximation, I would conceive of that as a more likely alternative in terms of nipping in the bud what we think is an incipient pickup in inflation. But we recognize, harking back to President McDonough's remark, that the implied real interest rate at the short end would be fairly high with a nominal federal funds rate of 6-1/2 percent. At that level, some easing in policy might be warranted if and as the inflation rate was checked and the perception was that the rate of inflation was clearly headed back down into the sub-3-percent inflation zone.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Jerry just asked the question I wanted to pose.

CHAIRMAN GREENSPAN. Mike, the data of the last couple of months clearly have been far stronger, especially in the manufacturing area, yet commodity prices have eased. Are we being put in a position where, for forecast and model purposes, we are using wages and prices as exogenous variables?

MR. PRELL. I'm not sure I understand that thought.

CHAIRMAN GREENSPAN. Let me take a step back. If you were to take the type of macro environment we are looking at and you were trying to make up for a shortfall from your earlier expectations, the numbers in such a forecast would, I suspect, be far stronger than the ones that you have. So, in that regard the add factors are very dominant elements in the forecast. The question that I am asking is whether these factors have become so large in recent forecasts that they are in effect giving us an exogenous forecast of prices.

MR. PRELL. I'm not sure I conceive of it as exogenous. In a sense we are letting bygones be bygones and not anticipating that the favorable inflation surprises have created some pent-up inflationary pressure that is going to burst forth in the future. I am impressed by recent

commodity market developments. I looked at the charts the other day. I did see some indications in copper markets of changing expectations that appeared to be associated with the problems in Southeast Asia, and there may be some special stories elsewhere. However, when we look across the breadth of the commodity markets, there really is no sign of general pressure in those markets. If we look at these markets narrowly in terms of the domestic industrial picture, capacity utilization rates are not extraordinarily high in most sectors. And where utilization is fairly high, as it is for example in the steel industry, the businesses in question are drawing in a large volume of imports and they have capacity coming on stream prospectively in such a way that there really does not seem to be much pricing leverage. So, in the last few months we increasingly have given weight to the sense that there really is not much pressure in the goods sector and that there is a lot of capacity coming on line in the United States and in many instances abroad. In our view, worldwide economic activity is not going to be so robust relative to capacity that we are going to have a lot of pressures in the commodity markets. I do not see those markets as the source of more inflation independently of what is going on more broadly.

CHAIRMAN GREENSPAN. If you are making the assumption that your model's historical structure and its coefficients are essentially correct and you are letting bygones be bygones, you will get a specific numerical forecast which follows from those two assumptions.

MR. PRELL. We are in a sense modifying some of the conditions in that model. When we look at cycles historically, we see that capacity utilization has tended to move up as unemployment has moved down. It is very hard to discern econometrically a separate role for industrial capacity utilization as a measure of the underlying inflationary pressure. In the current circumstance, the deviation of the capacity utilization rate from what we would predict given the unemployment rate is becoming substantial.

CHAIRMAN GREENSPAN. I gather that is true with the manufacturing unemployment rate as well?

MR. PRELL. Probably. Those industry unemployment rates are a shaky proposition. I must say I have not really looked at that.

CHAIRMAN CHAIRMAN. The last time we looked at this issue was a year or so ago, and we saw the same problem for the total unemployment rate. It was not a sectoral phenomenon; it was a divergence between the labor market and the facilities market.

MR. PRELL. Since manufacturers cannot produce without workers, the labor market is still relevant here. We do hear, and there were some Beigebook comments, that at least in some instances manufacturers were finding that they had to raise their wages in order to attract and retain the workers they needed. But the system seems to be working in such a way that we think it behooves us to give some weight to our expectation that capacity utilization is going to remain relatively moderate. We think this will put some damper on what the pickup in inflation otherwise would be going forward.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. As Jack mentioned, most of the good questions already have been asked. Mike, I know we have had an asymmetric risk picture in most of the recent Greenbook forecasts and certainly in the way the Committee has approached setting its directives. Would you say that the risks incorporated in this forecast are larger than they have been in earlier ones in terms of the degree of "judiciousness" that has been used in interpreting some of the evidence?

MR. PRELL. One of the risks we repeatedly have pointed to and then last time said it might not be such an asymmetric risk was the role of the stock market and the implications for consumption. As you may recall, the revised national income accounts that we received after the

August meeting showed that the saving rate had fallen so that the wealth effect seemingly was working the way one would have expected. We thought that somehow the world now was right and that we had a grasp of its functioning. We were not quite so concerned as we had been about the risk that we would suddenly find consumption surging in a belated response to the accumulation of wealth. In the interim, the stock market has once again risen more than we expected. The difference is not big, but it is there, and consumption expenditures are surpassing even our expectation of a robust upturn in the third quarter. Going forward, I do not have the sense that our forecast implies an asymmetry of risks in terms of aggregate demand being stronger or weaker. But it makes me nervous that we keep making revisions in the same direction, and my sense is that there really is a boom mentality at work in the economy today. The financial markets are supplying ample credit to borrowers, and the ongoing appreciation of share prices, now more concentrated in the smaller cap issues, is providing cheap equity capital for many companies. I worry that these booming conditions may be even more strongly maintained than we have forecast. But in terms of the nuts and bolts of putting this forecast together and the assumptions we have made for deviations from what we think of as normal behavior over time, I don't think we have an obvious tilt in the risks.

Let me add something that Don Kohn just whispered in my ear. We have helped, I think, to balance these risks in a sense by changing the policy assumptions. As we talk about the changes in the forecast, you should not overlook that we have incorporated in it a more stringent set of policy actions.

MS. MINEHAN. In your alternate forecast scenario that involves no further change in the federal funds rate, I wonder about that 2.6 percent GDP growth figure for 1998 which occurs without the 100 basis point tightening. I think there is a lot of optimism in that forecast that growth

will slow on its own. Now, granted that this is not your forecast number, but in terms of trying to balance off your actual forecast against a picture of what would happen if we did nothing, I think you have a lot of windage in that "no change" scenario.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. Mike said a moment ago that he did not think that manufacturers could produce without workers. I have heard that the factory of the future will only have a man and a dog. The man is there to feed the dog. The dog is there to keep the man from touching the equipment. [Laughter]

MS. MINEHAN. Well, we don't have to worry about our educational system!

MR. PRELL. I have heard that joke specifically pertaining to chip plants, an industry joke.

CHAIRMAN GREENSPAN. It is called a high-tech shaggy dog story. Who would like to start off the Committee discussion? President Broaddus.

MR. BROADDUS. Obviously the latest data, particularly including the latest inflation report, are very favorable. Maybe it is time for me to stop worrying and join the celebration.

CHAIRMAN GREENSPAN. Don't you dare do that! [Laughter]

MR. BROADDUS. You need not worry. I'm still nervous, and I get the sense from the questions and comments this morning that the staff and other people are as well. I am still nervous partly because of what I hear in my District and because I have a sense that the foundation of all the good news lately may be fragile.

As far as our District is concerned, it seems quite clear to me that regional economic activity has strengthened appreciably over the period since our last meeting. Labor markets, which were already tight, strike me as even tighter now than they were. I have heard some comments

recently suggesting that labor markets in much of our District are as tight as at any time since I have been in the Federal Reserve. There is increasing concern about this among employers. We hear this in a lot of comments, but I heard it especially loudly in the comments of the members of our Small Business and Agriculture Advisory Council when they met a week ago. They spoke about signing bonuses for middle level and even clerical entry-level workers. The owner of a construction company talked about skyrocketing wages in his sector. The owner of a private employment agency said that salaries for mid-level people have risen sharply over the last three months. One of the members of the group said that the remaining labor pool in her region consisted mostly of essentially unemployable people, and there were reports of construction projects being stretched out for lack of even minimally qualified workers. So, our regional labor markets are very tight. Elsewhere, we are hearing reports of overbuilding in the commercial real estate sector. These reports are not universal across the District, but we hear that especially in the southern part of the District there is overbuilding of hotels and office and commercial space for the first time in some time.

Again, there currently seems to be a lot of steam in our District economy, but having said all of this, let me acknowledge that we still are not hearing reports of significant price increases in final goods and services. That condition, of course, is encouraging, but I wonder how long it can last given the apparent robustness of business conditions in our region.

At the national level, I think we already recognize that the Greenbook's baseline projections are quite optimistic. They call for continuing growth at a robust pace, a drop in the unemployment rate to 4-1/2 percent, and an acceleration in core CPI inflation of only .2 percent next year despite the absence of any firming action on our part until 1998. That is a rosy scenario,

but it is not an unreasonable one given what has been happening over the last year and half or so, and it certainly could come to pass.

I think, however, that there are very substantial risks to this projection. Some of them already have been mentioned today. I will focus on a couple that arise primarily from the Greenbook assumption that we may wait until as late as next spring before tapping on the brakes. First, the Greenbook is projecting that our assumed tightening in 1998 will contribute to a 20 percent decline in the stock market over the course of the year. Of course, we really do not know where the market is going to be 6 months down the road, especially if we keep policy on hold until then, or how strong the market reaction to our initial action may be, again especially if we wait until as late as next spring before taking that action. I think there's a significant risk that the reaction could be very negative. What worries me about that possibility is that concern about it might incline us to wait longer before tightening further, and that could put us significantly behind the curve. I would argue that something like that happened after the market break in 1987. If this does happen, we will have to play catch-up the way we did back in 1988 and 1989. Obviously, that would increase the risk of a recession. I recognize that is a speculative comment, but I do not think it is far-fetched.

The second risk, perhaps in some ways the greater one, is that by waiting until late next spring to tap the brakes, we risk being challenged by some sort of inflation scare. It could arise from one of the incoming economic reports. Capacity utilization, domestically at least, is now approaching the level that has been associated with rising inflation pressures in the past. So, the good fortune and good luck we have had with the monthly core inflation reports may run out at some point. In that kind of situation, I worry that public confidence in our ability to keep a lid on inflation could diminish quite rapidly if we are seen as reacting to developments rather than

conditioning them. Some of you may have seen a TV commercial that advertises an upscale car by saying that life is divided between drivers and passengers, suggesting that drivers are more content than passengers because they are in control. I'm not sure that is always true on the highway; I know it is not true on I-95 where I would rather let somebody else drive. But I think it is applicable to monetary policy. I hope we will keep our hands firmly on the wheel and be ready to tap the brakes sooner than in the Greenbook scenario if we need to, as I think we may well have to.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, economic growth has continued to display strength in the Twelfth District in recent months. Payroll employment grew by almost 3 percent at an annual rate this summer. The number of jobs expanded briskly in the construction, real estate, and local government sectors in the District states that have fast-growing populations. Total manufacturing payrolls were boosted by the pickup in Washington State where we see a lot of growth in aerospace employment. This, of course, is the effect of Boeing's increased production as well as the effect of that production on supplying industries. However, aside from the aerospace industry, growth in District manufacturing employment has slowed a bit recently. Job gains have been most rapid in Washington and Nevada where payrolls are expanding at about a 6 percent annual rate. For example, the competition for skilled workers has stiffened in the Seattle area where Boeing, Microsoft, and other high-tech employers are expanding rapidly. In the Las Vegas area, construction of resort and other commercial projects continues to boom. The pace of expansion in California has remained strong in recent months, but it no longer appears to be accelerating. Payroll employment growth slowed to about a 2 percent average annual pace this summer, and that is down from a 3 percent gain in the preceding 12 months.

The national economy has continued to yield good news, as we have all seen. Economic activity appears to have turned in another strong performance in the third quarter and inflation has fallen further. Looking forward, I think there are a number of reasons to expect aggregate demand to slow in the quarters ahead. Inventories appear to be a bit on the high side as do stocks of most other types of real assets held by businesses and households. At its present level, the dollar is a restraining influence, and fiscal policy certainly remains somewhat restrictive. As a result, we expect to see a slowdown in nominal GDP growth from 5-1/4 percent this year to about 4 percent in 1998, with real GDP expanding by about 2 percent next year. However, I think there is upside risk to the outcome for next year, given that the economy has surprised us on the strong side over the past year or so and the possibility that a significant positive supply shock is affecting the economy.

With regard to inflation, the roughly 2 percent increase in the GDP price index that I expect for 1998 represents a relatively small rise over the 1-3/4 percent increase anticipated for this year. Of course, conventional measures of resource utilization suggest upward pressure on inflation. It is difficult, however, to know how much weight to put on these indicators. While there are reasons to be concerned about their reliability at present, it is too soon to tell if their historical relationships with inflation have broken down. Our analysis suggests that inflation forecasts in the past two years based upon these relationships are within normal statistical bounds. Even if we do get some upward pressure on inflation from high resource utilization, there are other factors in our forecast for 1998 that tend to restrain inflation at least temporarily. These include negative speed effects from the slowing growth of the economy and the high level of the dollar. Thank you.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. Economic conditions in the Seventh District are quite similar to those on which I reported at our August meeting. Our regional

economy continues to expand at a moderate rate that is slower than the nation's, in part due to labor supply constraints.

I met with our Advisory Councils on Agriculture, Labor, and Small Business a couple of weeks ago. The primary focus of discussion in all three groups was labor market conditions. Indeed, for small businesses, labor has become the limiting factor rather than capital, which seems to be quite plentiful at least according to these people. The general sense was that labor markets had tightened further since these advisory councils previously met last spring, and that is consistent with the fact that our region's unemployment rate fell below 4 percent and stayed below 4 percent during this period. These tighter conditions seem to be leading to some increases in the growth of base pay. But with a few exceptions, the increases are quite modest and on the order of .2 to .3 percent higher than a year ago. More striking are the other measures that firms are taking to secure qualified labor. These include signing bonuses for new employees and staying bonuses for existing ones. These forms of compensation do not show up in the ECI, and they appear to be ever more common. Small businesses are offering more flexible hours, customized benefits, and perks like tickets to sporting events. At the same time, the trend toward greater use of variable pay seems to have accelerated. Even some UAW assembly workers now have their pay tied to productivity targets. Firms seem increasingly willing to move jobs to areas where labor is not as scarce. The most extreme example mentioned at this meeting involved telemarketing firms, which seem to be able to locate in areas with relatively high unemployment. A new facility in such an area can begin its operations within a month. Tight labor markets also are encouraging, and in some cases forcing, firms to spend more on worker training. Similarly, apprenticeship programs are being revitalized in the building trades and elsewhere. Finally, council members reported that conditions remain favorable for moving people from welfare to work. Even here, the constraint appears to be mainly

on the side of the labor supply. The individuals who have difficulty moving from welfare to the workforce often cannot pass a drug test or are not familiar with the mores of the workplace.

As I reported before, District manufacturers and retailers continue to tell us that competitive pressures inhibit their ability to raise prices, although there have been some exceptions. For example, at our last meeting I reported on a large paper company that had pushed through its first price increase since 1995. That increase has held for the entire industry, and the firm is planning other price increases this fall. Prices of heavy and corrugated paper are up, and there is talk that newsprint will soon be on allocation. Overall, manufacturing activity continues to increase in the District, although at a slower pace than in the nation. Results from the Chicago Purchasing Managers' Survey were released this morning, and the composite index moved lower, to 61.2 in September from 64.3 in August, a sign that activity continues to increase at a healthy pace but more slowly than in August. The prices-paid component was 59 and the supplier-deliveries component came in at 58.1, both above 50 but below their August readings. At our August meeting, I mentioned that there were some hints of slowing in the steel distribution and trucking industries, which contacts thought might be temporary. That seems to have been the case as these contacts now report that activity has returned to high levels.

In terms of consumer spending trends, reports generally point to continued strength in August and September. Our survey showed that August was the best sales month so far this year for most Michigan retailers. Across the District as well as nationally, discounters are now experiencing strong sales performances, while the high-end or luxury segment is noticeably sluggish. This represents a reversal from the pattern that we saw earlier this year. At one large national retailer headquartered in the District, sales of appliances and home electronics have increased considerably in recent weeks while sales of apparel have moderated. Auto and light truck

sales have been boosted by targeted incentives and the unbundling of option items. September sales will not be quite as strong as the 15-1/2 million unit pace of July and August, but even with the shortened reporting period, our automobile industry contacts believe September sales will be higher than the level implied in the Greenbook.

Turning to the national outlook, I was slightly optimistic at our August meeting that the fundamentals were in place for future real growth at trend rates, but the new paradigm dilemma is now about as large as it gets. Second-quarter real GDP growth is substantially higher, while the inflation data continue to roll in lower than expected. The burst of investment in potentially productivity-enhancing capital equipment is encouraging. Nevertheless, although my inflation outlook has moved lower since the August meeting, it still has a somewhat steeper upward tilt than the Greenbook. On balance, I continue to view the risk to the outlook as being on the upside.

MR. PRELL. Mr. Chairman, may I interrupt for a moment? I would like to remind the members that in this discussion of what happens if the Committee tightens sooner than is assumed in the Greenbook forecast, the tighter alternative in the Greenbook is a first approximation. It is the sort of scenario where the Committee starts the tightening process immediately, and by the middle of next year the funds rate is at 7 percent instead of 6-1/2 percent. But as you can see if you look at the numbers for 1999, we have slow growth in economic activity and the unemployment rate is moving up very rapidly. So, this goes to the remark that I made earlier. If you looked out to 2000, you would probably be thinking about moderating the amount of restraint that was being imposed so that you did not needlessly overshoot the sustainable unemployment levels. I think you can get some sense from the Greenbook as to what the difference might be.

CHAIRMAN GREENSPAN. What worries me is that we may well need an actual turn in the inflation rate to get a sense of what this process is all about because we are still guessing. If

we go back six months, even though we were then seeing falling inflation, the presumption that it would continue to fall over the ensuing six months would probably have been considered almost inconceivable. Until we get a sense that this unusual behavior is coming to an end, I don't think we are going to understand fully what is happening.

MR. PRELL. I don't question that. I just felt that I probably overlooked a piece of information that might have been a more direct answer to your question.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. The Eleventh District economy continues to do very well, which I regard as a good thing. The Dallas District was cited in the Beigebook summary as having increased retail sales and some modest upward pressure on prices and wages in the services and retail sectors. Manufacturing activity has picked up in our District since the last meeting. Oil refineries are operating at record capacity levels. Rig counts are at their highest level since 1991, and even so their number is being constrained by a shortage of crews. Existing home sales have increased modestly, while commercial and office vacancy rates have continued to decline, leading to rising commercial construction in our area and a shortage of construction workers. Moderate gains in bank lending and continued competition between bank and nonbank lenders have been putting some downward pressure on rates but mostly on terms. As for shortages and bottlenecks, there have been some rail shipment disruptions related to railroad mergers, and anecdotal reports from our Small Business Advisory Committee suggest that, at least in our part of the country, UPS operations have not yet recovered fully from the strike. There is still a good bit of confusion there. Most farm crops in our area are in better shape than they have been in quite a while, but our farmers are almost obsessed with El Nino. They do not know what its impact is going to be on

them. An economist at Exxon, who is also a meteorologist, has asked us if we could get a combination economic/weather forecast for them. Perhaps we will be looking into that!

Texas traditionally has faster employment growth than the nation as a whole but at the same time a somewhat higher unemployment rate. That is the result of two factors, net strong in-migration of workers into Texas and the poverty and high levels of unemployment in the southern tier of Texas counties along the Mexican border. That area is now benefiting from the recent strong recovery of the Mexican economy, which is export-led and concentrated in northern Mexico especially among the maquiladora plants on the Mexican side of the Tex-Mex border. That is beginning to improve business noticeably in South Texas. I might just mention that the peso devaluation gave a boost to the already strong and rapidly growing maquiladora industry. It is my understanding that U.S. manufacturing employment has increased by only about 33,000 workers since the end of 1994 while manufacturing employment in the maquiladoras has increased 300,000, about ten times as much. Only seven U.S. states, if they are ranked in terms of manufacturing employment, rank higher than the maquiladora industry.

CHAIRMAN GREENSPAN. I did not quite get the difference between the 33,000 and 300,000. What is the 33,000 again?

MR. MCTEER. The 33,000 is the increase in U.S. manufacturing employment since the end of 1994.

CHAIRMAN GREENSPAN. In Texas?

MR. MCTEER. No, I think it is for the nation.

CHAIRMAN GREENSPAN. Okay.

MR. MCTEER. And the 300,000 is the increase in maquiladora manufacturing employment over the same period. If we rank the states in terms of manufacturing employment,

California is first, Ohio is next, then Texas, Illinois, Michigan, Pennsylvania and New York. The maquiladoras would rank eighth, coming in ahead of North Carolina and Florida, for example, which I find to be something of a surprise. They are supplementing the U.S. manufacturing capacity, and I think a lot of that supplemented capacity is in the industrial Midwest. The point there is that the maquiladora manufacturing capacity is helping to alleviate the pressure on U.S. capacity utilization.

I might also mention with respect to Mexico that since the last FOMC meeting, Harvey Rosenblum and I spent a day with the Board of Governors of the Bank of Mexico and we also met with the Minister of Finance. Some of my impressions are as follows: The smoothness of the Mexican election should not encourage us too much. There is a mood of "get even" and "pay back" that threatens to take economic policymaking out of the control of the technocrats in Mexico. The parties of the left and the right seem more willing to get together to oppose the center than to get with the center to oppose the other extreme. So far, the economic argument is focused on whether and how much to roll back the value-added tax that was increased during the peso crisis. While the macro numbers describing the Mexican economic recovery are strong--their real GDP increased almost 9 percent over the past year--it is concentrated in the export sector, which is also concentrated geographically in the northern part of Mexico. This recovery is missing a lot of the people who were harmed by the initial downturn and by the devaluation. The point is that the vast majority of the people have not felt much of the benefit of the rebound, and this is limiting the political credit that might have been given for the good macroeconomic performance. While the Mexicans have stopped the hemorrhaging of their banking system, the latter's return to health has barely begun and it remains vulnerable. In addition, the cost of the government's rescue efforts is a double-digit percentage of GDP, another factor contributing to the lowering of standards of living.

The Mexican authorities understand the dilemmas and the dangers of having their exchange rate held up in real terms by capital inflows, but their desire to maintain an open economy leaves them with not much they can do about it, and they may be a little nervous about being in somewhat the same position now as they were in 1994. From our side of the border, their strong peso is boosting our exports. A favorite way of measuring exports to Mexico is to measure the length of the line of trucks in Laredo going toward Monterey on I-35, and it is typically backed up 5 to 7 miles these days.

Turning to the U.S. economy, what can I say except "the beat goes on." It is good to see the near-term Greenbook forecast taking on more of an optimistic, new paradigm tone. I did note that the Greenbook soul searching over the new era rhetoric was, in Mike Prell's words, "tortuous," but it was appreciated nevertheless. As for Greenbook details, the only thing I would quibble with a little is that we see the real third-quarter growth rate to be considerably stronger than the Greenbook has it now.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Mr. Chairman, the New England economy continues to grow steadily at roughly the national rate. The regional unemployment rate in August was about 4.3 percent, and initial unemployment claims continue to trend down. Labor force participation rates are rising in response to the attractive employment situation. Most of our job growth has been concentrated in services, as is true for the national economy, but no sector of the regional economy is doing poorly at present. Even manufacturing employment has begun to edge up. This represents a rather striking contrast. We are always looking at how things got out of whack in New England at the end of the 1980s and how things are different now, and hopefully they are. At the end of the 1980s, New England was enjoying a very high degree of prosperity. Then, as now, most of the new jobs

were in services, but that situation masked employment declines in many of the region's manufacturing industries, and that, of course, played into the depth of the recession when the bubble finally burst in New England.

Our informal conversations with the region's retailers and manufacturers confirm the positive picture. Retail sales and manufacturing revenues are up from year-ago levels, surpassing expectations in many cases. Manufacturing strength is quite broad-based, with aircraft parts and furniture exhibiting some of the most rapid growth. Most retail and manufacturing contacts report that they have capital expansions under way. Some of the manufacturing plans are quite ambitious. Many of our contacts characterized labor markets as tight. Several commented that the quality of the pool of people from which they draw has declined. Employers claim to be resisting increasing wages across the board, although the normal wage increase seems to be edging up from what it was a few months ago. It is now in the 3 to 5 percent range. In addition, special bonuses and other incentives seem to be available to more and more of the workforce. While overall wage levels continue to rise only in the moderate range I have talked about, our contacts in the temporary help business commonly report increases of 10 percent or more, and in some cases a lot more. Wage increases are particularly rapid for people with technical skills. These workers in New England, as well as elsewhere, are in very short supply. Many receive offers of permanent employment but are choosing to stay in contract work. The temporary help agencies report no difficulty in passing the increased cost of temporary workers on to their customers. Salary pressures are also quite intense, as you can imagine, in the asset management area. One respondent observed that while the general salary pool increase at his firm is 4 percent, investment managers have bonuses like sports stars. Bonuses to existing employees who refer new hires are becoming more prevalent along with signing bonuses, and these referral bonuses typically range somewhere between \$500 and \$2000.

Most companies in retailing and manufacturing continue, however, to hold the line on prices, citing competitive pressures. Even when prices of materials or wages have increased, gains in efficiency have enabled companies to maintain selling prices without sacrificing margins. A contact from a very large company regarded as one of the nation's most efficient observed that she sees virtually unlimited opportunities for cutting costs and improving productivity. These opportunities often involve changes in procedures rather than specific new capital investments.

I must say that I was impressed by some of the discussion when a trade mission from India recently visited Boston; the trade mission included India's minister of trade and industry and the ambassador. They were talking a bit about the boom in some areas of the Indian economy. In particular, they talked about how several hospitals in the Boston area now create automated records during the day, which are shipped overnight via telecommunications to Bombay, entered into online real time databases there, and then are available the next morning for use by our hospitals, effectively a day or less from the time that they were created. This basically moves major back office operations out of Boston to Bombay in a way that seems to be fairly easy to set up. They were pointing to the advantages that India has, and it was quite striking that this improved service was available to hospitals and other kinds of companies that traditionally have had some difficulty with the productivity of their back office operations. Another contact attributed low inflation to Wal-Mart and other retail giants who have taught companies to be just as difficult with their suppliers as their customers are with them.

Real estate markets throughout New England continue to be quite active, and we had some improvement in previously lagging areas, Rhode Island for one. Prices, however, are increasing as yet only modestly.

I was intrigued by Mike Prell's discussion of the Greenbook forecast because I think it addressed a lot of the differences that we had with the Greenbook presentation. We agree with your assessment of the outlook for growth, Mike, particularly over the short run--that is, over the next 3 quarters or so. We have some concerns after that. We think it likely that unemployment will decline to the 4-1/2 percent level talked about in the Greenbook and that, at least in the short term, inflation will creep up only modestly. However, we begin to have some questions after the short term. We question whether the appreciated dollar will stay where it is over the entire projection period and have the impact on controlling inflation that is expected in the Greenbook forecast. We wonder whether we are going to have more normal cost increases in benefits. You talked a little about that, Mike. It is not featured much in the Greenbook, but you did bring it into your discussion. We think it possible that more normal wage increases will begin to reassert themselves sooner rather than later. I also question whether the impact from the decline in the stock market that we have been expecting for so long will really begin to hit us in the early part of 1998 the way both your standard forecast and your alternative forecast assume.

It seems that aside from the dollar, you are hanging your hat on two things to derive a very rosy forecast. They are a 100 basis point increase in the federal funds rate and a related drop in the stock market. I want to question whether, if we get on this bandwagon a little earlier than is assumed in the Greenbook, we can do a little less and have a little more of an impact on asset valuations going forward. That would help to moderate demand pressures and reduce the risk that I think is apparent in this Greenbook forecast that the economy could get out of control earlier next year than we expect.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. Thank you. In addition to our usual advisory council meetings and other contacts, we had a board of directors meeting earlier this month with all the directors from our three offices and, in conjunction with that, a breakfast with some leading manufacturing CEOs to talk about innovations, greater efficiencies, and new products. Chairman Greenspan was present to hear these executives as well as the directors. So, if the way I feed back what was said does not fit with your impressions and recollections, Mr. Chairman, you may want to add to or correct what I have to say here.

We were trying to get a sense of what was happening within companies and whether or not that resonates well with what we see in various economic statistics. Some of the common themes and responses were as follows. The increase in manufacturing capacity and in efficiency and/or productivity as seen by firms reflects in part the very strong incentives that they all feel as well as the availability of new technologies that can be used to minimize their downtimes, tighten their control of factor input costs, and improve the management of their inventories. They said that the incentives for much of that increase in capacity and related productivity would have been there and could have been accommodated even without major expenditures for capacity. They talked a lot about the continued shortening in product life cycles, and observed that the only way they could hold prevailing product prices steady was through product enhancements. They doubted whether such enhancements were accurately reflected as different products within their own firms, let alone in the statistics. The CAD/CAM technologies are making it possible for them to shorten product life cycles dramatically, which then allows them to customize the products far more readily than they were able to before. Also, they offer more frequent shipments to their customers as a way to reduce the inventory costs of the customers. That sometimes allows them to raise the posted price, but for the most part it simply reduces the pressure they feel to cut their prices. That is a product

enhancement even though it would never be recorded as a different product when it is simply made available more frequently. Production automation means that the setup times are dropping sharply, and in turn that means that business firms have more actual capacity even with the same physical plant facilities and product enhancements are facilitated.

Global competition and outsourcing together with the constraints on pricing are increasing the incentives for innovating and introducing new products at a faster pace. I got the sense that we were nowhere close to the end of that set of opportunities. One newspaper executive talked about how their overhead relative to total revenue has been falling because the same support expenditures are now spread over much, much larger volumes. This is made possible by new technologies that have caused a very sharp drop in production and distribution costs. Steel is one industry that was well represented, and they commented that over the last 10 years their industry has had a major increase in labor productivity averaging 4.4 percent per year. Over that same 10 years, they have experienced a 57 percent increase in labor costs per hour with no increase in product costs per ton.

A little more on labor: An interesting twist on what we have been hearing or thinking about the behavior of unions is that they are now providing more and more intensive training of union workers to insure that the productivity of their members versus nonunion workers is sufficient to more than offset any wage differences. Within the last 10 years, construction and some other unions have adopted what they now call a “lifetime-of-learning” philosophy as a part of the rationale for union membership. The objective is, of course, to have their members stay in demand as the most highly-skilled and therefore the most highly-paid workers. This is a shift away from earlier philosophies of protecting jobs through various restrictive labor market practices. There was also a claim that for office workers we are only beginning to see the kinds of

technologies that will allow workers to be trained and retrained on a continuing basis at their desks or their work stations. How that might enhance productivity also was discussed.

One note about the tightness of labor markets: It was said that Wendy's Restaurants across the nation once had a notice in the center of every table that said "special of the day." Now every table has a list of "positions available."

Other directors commented that retail sales went flat last spring. They characterized retail markets by saying that "customers went into a cave." Then, in the course of July and August, customers crawled out of their caves and started to spend at a surprisingly strong rate in the view of some directors. Major retailers reportedly are growing more confident, and the expectation now is that we will see orders increasing in the period ahead.

With respect to the real estate market, we hear that higher-priced homes are still staying on the market a relatively long time and that in some metro areas overbuilding is becoming more obvious in what had been hot markets. Our directors expect that situation to get even worse. Some of the bank directors reported brisk home refinancing in the most recent weeks. The bankers also talked about increasingly skimpy pricing in their C&I lending. They claimed that banks have plenty of money to lend and that everyone is driving their volume up to maintain earnings in the face of slimmer margins. One banker commented that everybody is chasing deals.

Turning to the national economy, a year ago we were looking at a near-term forecast for the fourth quarter of 1996 and the first quarter of this year that looked satisfactory, with nominal spending growth in the 4-1/2 to 5 percent range. Of course, that did not happen. We were very surprised at how much stronger than expected nominal and real growth were in that period. That was a pleasant development because, at least in that period, the rapid growth was not yet associated with an acceleration of inflation. With the advantage of hindsight, we can see that that condition

was being signaled by an acceleration of money growth. We got a lot more growth in broad money but also in the base, sweep-adjusted M1, and MZM than was projected at the time of the September meeting. Nominal spending growth needed to slow down, and it did slow down in the spring quarter. Money growth also slowed down, providing a little respite. But money growth then started to accelerate again, and we are now getting upward revisions in the third-quarter GDP numbers, both real and nominal. I was out in San Francisco a couple of weeks ago and Larry Klein, who was on Bob Parry's program, reported that he uses a high-frequency model to make a new estimate of the economy every Monday. He has been revising his forecast successively upward, and at that point he already had growth of 4 percent in real and 6 percent in nominal GDP for this quarter. He said that each time he makes this estimate, the economy looks a little stronger.

That concerns me because we again are looking at a rather good forecast in the Greenbook. If this forecast turns out to be correct with or without the policy adjustments it implies, I would be comfortable. But I am more and more concerned that we are likely to be surprised again in the near term by just how much stronger nominal spending is than we are anticipating. So, when the money numbers accelerate as dramatically as they have over the last couple of months, I see a need for those increases to slow and I am not comfortable that our policy is right. I cannot visualize the conditions that would allow me to accept growth of the sweep-adjusted monetary base on the order of 7 percent--and that growth is currently accelerating--at this stage of the cycle. It says to me that we more likely have calibrated the nominal funds rates too low rather than too high.

The way we usually look at real interest rates--the real funds rate or some other real short-term interest rate--abstracts from the idea that real interest rates have to be thought of in a relative context. If people in their decision-making are adjusting upward their expectations about real returns on productive assets in real estate markets, equity markets, or elsewhere, then real

short-term money market interest rates have moved down in a relative sense even if consumer price inflation has moved down. There were references earlier to the possibility that boom conditions could emerge. If boom conditions are starting to emerge in the minds of people, then the stance or thrust of policy has become progressively more expansionary even with an unchanged nominal funds rate.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Thank you, Mr. Chairman. The Tenth District economy continues strong. Our manufacturing sector is still operating at very high levels of capacity. District retailers are again experiencing good sales after a slowdown this summer. The energy sector is strong. The District farm economy is in uniformly good condition; that includes both our grain and cattle industries. The construction sector has shown some slowing over the last several months but from elevated levels to more moderate levels of activity. We have seen some slowing in our labor markets, but that may be due largely to the fact that we had very low unemployment to begin with, anywhere from 2 percent to 4 percent across the District. In the circumstances, our labor markets remain quite tight and we are continuing to see some evidence of wage pressures across the board. That includes entry-level workers, technicians, engineers, and so forth. Wages for entry-level jobs are now reported as starting at about \$10 per hour in the Denver area, and entry-level wages are rising elsewhere in the District. Mike Prell and others have mentioned that medical costs are expected to increase, and we too are seeing evidence of that. In fact, who is an executive with said that they expect premium increases of 4 to 6 percent or higher and that half of the health plans in Colorado are now losing money. So, they are going to push to recover their rising costs.

On the inflation front we have not seen widespread increases in prices, but there are indications of higher prices in some sectors such as the transportation industry. Some of our major railroads have pushed through price increases. Their customers have complained, but since the trucking industry is doing the same thing, competition is not forcing the railroads to back off.

On the national level, I would be skeptical about pushing the concept that we are experiencing a new paradigm. I do think, though, that business cycles do not repeat themselves exactly as we have seen in the past. A host of special factors seem to be affecting various parts of the economy, but fundamental economic forces may well come back to bear on the course of this cycle. I am alerted to that possibility when I look at the level of resource utilization throughout the economy, and that makes me skeptical of the explanation that we have a new paradigm that will last. I do not mean to ignore some other developments, which I will keep in mind when Don Kohn presents his alternatives to us a little later. These include a real fed funds rate that remains high in an historical context, core CPI inflation that has been trending lower, pipeline inflation that is essentially absent right now, inflation expectations that continue to be stable for now, inflation indicators that are pointing downward, a dollar that is higher at this point, and long-term rates that are lower than they were somewhat earlier. That is the other side of the coin that everyone is talking about and debating, and we have to keep it in mind as we raise concerns about the level of resource utilization and its implications for inflation. Thank you.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. The economy in the Philadelphia District currently is performing much as it has in recent months. It features steady growth at a moderate pace, tight labor markets, and little or no upward pressure on prices. In commercial real estate, vacancy rates are low and rents are rising. More capacity is in train, however, and rents are expected to be under less pressure as

more space is completed. As yet, there is surprisingly little speculative building going on in the Third District. Although wage increases seem to be holding at around 4 percent, there are more reports of additional perks, signing bonuses, and other incentives to attract and retain skilled people. With business activity generally favorable, attitudes are positive but tough competition seems to be providing a restraining influence on the development of a boom mentality.

Turning to the nation, we are in a reasonably comfortable position for now. Actual performance at the macro level continues to be surprisingly good, and the risks to that favorable performance are largely unchanged from recent months. Like some of the rest of us, I did appreciate the confessions of a tortured staff. Perhaps the time has come for all of us to torture ourselves less. Most people like to be right rather than wrong; most would rather have the outcome turn out to be better than worse. The problem here is that things have turned out to be better, but most of us have been wrong. [Laughter] Depending on one's mindset, each of us will respond either by saying, "The old model is still true; just give it time; it will reassert itself," or by saying, "There is a new model at work and the world is indeed different." My guess is that the truth is probably somewhere in the middle. We just do not know where in the middle at this point. But I think the time has come for us to be less defensive, and the way we do that is to adopt the stance of being open minded and alert and let the truth, whatever it is, fall out wherever it might. In the meantime, we make the best judgments we can. If we are right, we are right; and if we are wrong, we are wrong. But I do not think we ought to torture ourselves any longer.

MR. PRELL. I should say that the word I used to describe the Greenbook forecast was "tortuous." [Laughter] I hope we did not torture the readers.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. Thanks, Alan. I have little new to report on the Eighth District economy. On balance, economic performance has improved in the third quarter, as we hear has occurred in other districts. Sales exceeded the expectations of many businesses. District labor markets are stretched to the limit in many areas, and that is putting a damper on payroll employment growth. For example, the latest Manpower survey as well as a recent survey of small businesses in the District show continued strength in labor demand relative to the supply of qualified workers, resulting in some pressure on wages. The market for high-priced homes has weakened somewhat in the District, but overall residential building has been held back more by supply than by demand factors. District banking data are broadly consistent with an overall strengthening in activity recently, as reflected in the apparent year-over-year growth in bank loans at a double-digit pace in the second quarter. One problem with this assessment, however, is that the data exclude what was the District's largest banking institution, now part of another District for statistical purposes.

The outlook for the nation continues to improve. The substantial upward shift in the Greenbook's outlook for economic activity in 1997 is consistent with our view from the Eighth District. Perhaps the most important reason for this good outlook is that inflation and inflation expectations have declined, facilitating sounder economic decisions and avoiding imbalances that occurred in past expansions. When the recession started in the third quarter of 1990, inflation as measured by the CPI had accelerated to 7 percent. By the first quarter of 1991, the CPI inflation rate had dropped to 3 percent, and it stayed near that level until recently. This year the inflation rate has dropped to an annual rate of 1.6 percent through August. We should view this unanticipated development as an opportunity to take a step closer to price stability, a step that would put our inflation performance much more in line with that of other industrial countries.

Longer-term inflation expectations appear to have come down a bit in financial markets as well, perhaps reflecting the view that we will lock in a rate of inflation lower than 3 percent. However, we have not taken any important steps to do so as yet. If anything, and Jerry Jordan mentioned this in a very clear fashion, monetary policy may be getting more accommodative as gauged by the growth of money and credit. The broad aggregates, M2 and M3, surged in the last 12 weeks and remain above the upper bounds of their target ranges for 1997. We see a similar surge in the narrow monetary aggregates after adjusting for sweep accounts. These indicators of an expansionary monetary policy stance are consistent with the continued rapid growth in bank credit we have observed and a readily available supply of loans for both consumers and businesses.

The Greenbook is forecasting a substantial acceleration of inflation and a significant increase in the federal funds rate target in 1998. If such actions are judged by the Committee as likely to be needed in 1998, then why not adopt a tighter monetary policy stance in 1997? Policy actions while the economy is robust, as it is now, might be less disruptive than they would be in a situation where real growth is slowing and inflation is accelerating, as is forecast for next year. A little preventive medicine sooner, which is not a new theme in light of some of the comments made here today, might avoid such a dilemma later. I realize that markets would be surprised by such an action because we have not laid the groundwork for it. We have not been explicit about our inflation objective. If we had been, markets would not be caught completely off guard by monetary policy actions to preserve the inflation gains we have experienced this year. For all intents and purposes, those gains have brought us to price stability. Indeed, markets might react favorably to such actions since low and stable inflation is sound economic policy. Thank you.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you. The Ninth District economy remains quite healthy, and I have asked myself what has changed in our area that might provide a clue as to the future performance of the national economy. The short answer to that is "not much," but let me comment on a few aspects of the situation in any event. District agricultural conditions are mixed. Livestock producers find themselves in better shape than they expected and are having their best year in some time. On the other hand, producers of wheat and other small grains are finding themselves in even worse shape than they anticipated, both in terms of the size of their crops and the prices they are going to get. As Mike Moskow commented, the paper industry is doing better and probably better than it expected at this point in time. The scramble for labor continues in the District and, if anything, it has intensified. I would say that there is more commentary among business people about wage pressures than I was hearing a few months ago. For the most part, that has not translated into price pressures or price increases yet. I have come across a couple of reports of firms that, after not raising prices or at least not making price increases stick in recent years, have done so recently, and it appears that those increases will stick. So, there may be something going on there, but I would say it is premature to conclude very much.

As far as the national economy is concerned, given the momentum that appears to be underlying what is going on, I have some sympathy for the changes to the Greenbook forecast. We are looking at more real growth and lower inflation, and that is sensible. But it does strike me that changes to the forecast could almost as easily have been made in the opposite direction on the grounds that the unemployment rate has fallen more rapidly than we anticipated, capacity utilization rates have risen, employment gains have been larger than can be sustained in the long run, and all of that might lead us to believe that we are going to see more inflation and less growth in the future, even in the relatively near future, than is envisioned in the Greenbook.

However that may be, my concerns are heightened a bit by some analysis we have done on what I would describe as proxies for imbalances. Of course, these variables are not infallible, but they all have moved into ranges where they are beginning to flash some warning signs. In particular, we have been looking at the quit rate, capacity utilization in manufacturing, and the term structure spread. Based on historical performance, all these indicators are now in ranges where we might anticipate slower real growth and/or more inflation than in the Greenbook forecast some time in the next 12 months. Again, I would not want to make too much of that at this point, but for those of us who still have some faith in the old time religion, I do think that there may be some warning signs out there.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. Our Sixth District economy looks much the way it did six weeks ago, and District activity finished the summer at a pace that looks much the same as that for the nation. The regionally important tourism and hospitality industries could not be stronger, and this is despite the added capacity that I reported at previous meetings. At the same time, we have seen some impact on tourism from a stronger dollar. Traffic from Europe, especially Germany, is down, but that has been offset by a pickup in visitors from other areas of the world such as Latin America. Manufacturing seems to have slowed somewhat after a strong summer. Activity remains solid in shipbuilding and energy. Further expansion from present levels in the oil and gas drilling business is limited by the availability of rigs, many of which are being refurbished after having been written off earlier as unusable. Our people tell us that inventories remain in good balance for the most part. There is growing anecdotal evidence suggesting that continued strength in investment spending is motivated more by the desire to cut costs and improve productivity than the desire to increase capacity in anticipation of future growth. In Alabama, where many small

towns dependent on apparel manufacturing have been hard hit in recent years as I have said at a couple of meetings, we have seen a welcome influx of light manufacturing, especially electronics and high-tech. Much of that seems to be driven by the new southern auto industry in that part of the country. Residential construction in our area appears to be moving sideways rather than falling off to some extent as we expected would occur by now. Retail and industrial construction has passed its peak, but office construction is still showing some acceleration in the Southeast. Retail sales were good in July but slowed again in August.

No one is surprised that labor markets in our region remain tight, although I would not characterize them as tighter than a year ago. Perhaps that is because our growth was relatively stronger early in this expansion. An interesting story that matches some others comes from one of our businessmen in a very small meter-reading business. He said that he was having a very difficult time recruiting young people with good driving records to run around the community and read meters. His solution was to hire two people in the place of one: a retiree with a legitimate driver's license and a good driving record who needed something to do and a young person with good legs to do the running between the houses. He said the experiment has worked quite well. This is an interesting way to get around the labor shortage in that area. Despite tight labor markets, we still are not hearing any reports of significant wage increases. Retailers continue to tell us that they expect to get no meaningful price increases over the next six months. And while manufacturers say that their margins continue to narrow at least a little, even small increases in prices are tough to pass on, a now-familiar story.

At the national level, we see the picture much the same as most of those who have commented this morning: higher-than-anticipated growth and lower-than-anticipated inflation. Like the Greenbook, we too expect economic growth to slow in the latter part of the year and into

1998, partly due to inventories but also reflecting moderation in the growth of investment spending and in the contribution from exports. We are not anticipating any significant new price pressures in the near term, but we do expect an upward drift next year to the extent that energy prices increase and we lose the moderating effect they have exerted this year.

I am not looking at Ed Boehne's notes, but I too believe that we continue to be in a period where we should allow ourselves to enjoy the happy combination of developments that have occurred, even if we do not fully understand them. My instincts, like almost everybody else's, indicate that the risks are still somewhat on the upside and that we are still likely to need to tighten at some later point down the road. If I were more confident that the economy would play out as laid out in the Greenbook, I would be beating the table for an early policy move. I believe that what probably has been at work is not just the good fortune of positive shocks but rather the more subtle and hopefully more lasting effect of some years of good monetary policy and, in more recent years, of better fiscal policy and expectations of more of the same. I think there is at least a reasonable chance we could continue to be happily surprised for a while longer. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN McDONOUGH. Thank you, Mr. Chairman. The rate of economic growth in the Second District has held fairly steady since the last meeting. The latest figures on payroll employment suggest a third-quarter acceleration in the pace of job creation, though the figures were held down a bit by the UPS strike. The job growth in New York and New Jersey averaged an annual rate of 0.9 percent over the last three months, but if we remove the strike effect, the rate of growth actually would be about 1.7 percent despite some drag from the public sector. Consumer spending in our area is reasonably good. The retailers are happy and report that sales are

a little ahead of their plans. In the real estate area, the main characteristic continues to be weakness in upstate New York and some further tightening of the space markets in various parts of Manhattan. Manufacturing in the area continues to be fairly good, again with some drag from the upstate New York area. That was dramatized recently by Eastman Kodak's announcement that it will cut at least 10,000 jobs; they did not specify where the cuts would occur, but a third of their workforce is in upstate New York. Within the District, consumer price inflation averaged 2.2 percent during the 12 months ended in August, about matching the national rate.

On the national level, we do not have quite the drama in our forecast of a 20 percent correction in the stock market or a 100 basis point tightening, but our forecast is a reasonably attractive one in any event. We look for GDP growth of 3-1/4 to 3-1/2 percent in the third quarter, but we then have growth slowing to about the trend rate both at the end of 1997 and into 1998. The big variable, of course, is the consumer. We anticipate that consumer spending will settle down to a trend growth rate of about 2-1/2 percent, and for reasons related to the question I asked earlier, we think that inventory investment will be a significant drag on GDP growth as will net exports. We have been happily surprised, as has everybody else, by the performance of inflation and actually have reduced our trend inflation rate somewhat for the balance of 1997. But we have inflation picking up gradually in 1998 and 1999, hitting about 3.2 percent in 1999. That is measured as it would be today, though the reported numbers will presumably be lower as various technical improvements are worked in. We think the real threat to the inflation forecast would be a stronger economy induced by higher-than-projected increases in consumer spending. We do not particularly expect that to happen, but it does make us believe that the risk to the forecast is that the economy will be stronger than we anticipate, and therefore the inflation risk will be somewhat greater.

Since some members are wandering into the policy area, I will refer to our view which is that we do not need to tighten quite yet. However, we think the time is coming somewhat closer than we thought it was a meeting or two ago. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Rivlin.

MS. RIVLIN. Like Ed Boehne and a few others, I feel moved to say a few things about new and old paradigms. If one listens to the economic and financial press and sometimes to the conversation around this table, one gets the impression that there are only two possible explanations for what is happening at the moment. One is that the economy's functioning has not really changed much over the last 20 to 30 years. In this view, economists' models with the parameters fitted to the data of the last couple of decades are still good predictors; it is just that something temporary or several temporary factors are giving us more favorable results right now. When these temporary factors turn around, everything will snap back into place. In particular, inflation and low productivity growth, the bugaboos of the U.S. economy since the late 1960s or early 1970s, will be plaguing us as much as ever.

The alternative explanation is that there is a new era or new paradigm, which actually seems to mean no paradigm. In this view, it is possible "to have the cake and eat it too" without worrying about productivity or inflation because the former will be rapid and the latter nonexistent. In this view, economists are to be ignored if they say anything cautionary about overheating or bubbles in asset values or wages outrunning productivity growth. The atmosphere has gotten a little like the policy discussions of the early 1980s, which I remember very clearly. In that period, the so-called supply side economists overwhelmed the essential kernel of truth in their thesis that incentives, including tax incentives, matter to economic performance. They made absurd claims about the magnitude of the likely effects on labor supply or the saving rate of small, marginal

changes in tax rates. Those who warned that high deficits generated by cutting tax rates without cutting spending might lead to either inflation or, with a responsible Federal Reserve, to higher interest rates and a punishingly high dollar were labeled as old paradigm Keynesians who were not to be paid much mind. It was not a helpful debate, and it led to bad policy and an undermining of confidence in the economics profession. Both are things that ought to be avoided. [Laughter]

At the moment, it seems to me that we ought to be focusing not on new or old paradigms but on the fact, and it is a fact, that while economists have learned a great deal about how the economy works over the last two or three decades, it is demonstrably functioning better than any of us thought it would. Now, good fiscal policy and good monetary policy clearly get some of the credit for this, but there is accumulating evidence that the economy is more flexible and responsive and less inflation-prone than it used to be. To my mind, one of the most gratifying charts in the Greenbook, meeting after meeting, is the inventory-sales ratio chart, especially in manufacturing, which keeps trending down and suggests that manufacturers really have learned something about inventory management.

More fundamentally, the surprising thing about the economy at the moment is the uniformity in the activity levels across the country and across sectors of the economy. Labor markets seem to be almost uniformly tight. Twelve people around this table said almost exactly the same thing--not quite, but very close. We do not really understand why this is true, but one has to suspect that there is more flexibility both in labor markets and in production location than there used to be. Workers move to jobs and jobs move to workers; capital moves more easily nationally and internationally; and production can be located and expanded in different places, including overseas and across the Mexican border, more readily than it used to be. We have heard some

wonderful examples of this today--Cathy Minehan's Bombay back office for Boston area hospitals, as well as the maquiladora process.

The other surprising development is the apparent increase in productivity growth at a time when the economy has been growing for a long period and the boom might be expected to be running out of steam. Economists have always given two reasons for the observed slowdown in productivity at the peak of the cycle. The first one never seemed to me to make very much sense, but we all used to say to each other that we were scraping the bottom of the labor market and bringing in less skilled, less experienced people. That was undoubtedly true, but a drop from 5-1/2 percent to 4-1/2 percent in the unemployment rate, while a big drop in unemployment, means an increase of only a little more than 1 percent in the employed labor force. And it is hard to believe that this 1 percent of the workforce, however inept and inexperienced, could really drag down productivity all that much.

The other explanation that one still hears is that old, less efficient capacity is brought on line. When the old boiler that does not have to be used until the firm is facing severe capacity constraints is finally brought on line, it obviously is less productive. That also seems to make less and less sense after a period of very high investment accompanied by rapid technological change. It may be that the tight labor markets in the current environment actually provide incentives for increasing productivity.

None of this seems to be a reason for arguing that economists do not know anything or that staff is irrelevant. It does seem to provide a rationale for at least a tentative hypothesis that the U.S. economy is less inflation-prone today than it was in the 1970s and 1980s for a lot of reasons relating to globalization, information technology, pro-competitive developments, and the safety valve that recent immigration might have given us in the labor market. Econometrics is a very

useful thing, but it is inherently conservative in the sense that when parameters shift, the equations pick this up with a very considerable lag. At the moment, it is very hard to defend the proposition that economists "know" in some sense that an economy operating below 5-1/2 percent unemployment is taking on a serious risk of wage and price increases. We have been operating in that range now for quite a while, and we have not seen either rapid acceleration in wages or any increase in prices. We still have declining core inflation.

The temporary factor most frequently invoked to explain this is the high dollar, but that is not a fully plausible explanation even in an economy that is much more open than it used to be. This is not a plea for new era thinking in the sense of throwing caution to the wind. It is a plea for economists to stop being defensive and to try to figure out more carefully, as the staff here is actually doing, how this dynamic economy is really working.

CHAIRMAN GREENSPAN. Governor Meyer.

MR. MEYER. My view of the economic outlook has changed rather significantly since the last meeting. At that time, it appeared that growth had slowed more sharply in the second quarter than now appears to have been the case and that growth might remain near its sustainable trend in the second half and into 1998. To be sure, the risk of higher inflation remained, but the slowdown in growth and the recent favorable inflation performance removed any sense of urgency to the policy decision.

The crosscurrents that underpinned the earlier forecast, specifically between the projected slowing in inventory investment and the expected rebound in demand, seem well enough in evidence now and continue to underpin the forecast of slower growth in the second half of this year. But crosscurrents do not necessarily balance, and the crosscurrents in question apparently have not yielded a return to trend growth. Indeed, growth in the third quarter appears likely to be

about as strong as it was in the second quarter. Perhaps more importantly, the ample evidence of positive fundamentals including, I believe, supportive financial conditions and the absence of signs of imbalances suggest that growth is likely to remain above trend for some time in the absence of a change in policy. As a result, it now appears likely that the unemployment rate will decline to a new cyclical low in coming quarters.

Three important changes in the Greenbook forecast for this meeting effectively highlight the key issues in the forecast. First, the staff forecast for growth in the first half of 1998 was revised upward to about a 3 percent rate, with the unemployment rate falling to 4-1/2 percent by mid-1998. Second, a series of adjustments and forecast assumptions were introduced that moderated the decline in the unemployment rate and the rise in inflation associated with a higher growth forecast. And third, the normal practice of a constant funds rate, either nominal or more recently real, was replaced by a preemptive policy response. The key is the interaction among these changes. Even with the more favorable assumptions about the link from growth to inflation pressures, the higher growth path of the Greenbook forecast yields an unfavorable inflation outcome, justifying a preemptive policy response.

I believe that the risks relative to the staff growth forecast are now more evenly balanced, and I would endorse a preemptive policy response to the projected decline in the unemployment rate and increased risk of inflation. I do have some reservations, however, about three changes in assumptions in this forecast, each of which worked to diminish the response of inflation to the upward revised path of growth. The staff revised upward its projections of both labor force and productivity growth, in effect raising the trend rate of GDP growth over the forecast period and as a result moderating the decline in the unemployment rate. In addition, the staff revised downward the response of wages and prices to the lower unemployment rate. Mike Prell

referred to these changes as a flirtation with new era thinking. They are clearly an effort to balance what I have called regularities and possibilities. Whatever the merits of these adjustments, they leave in my judgment considerably greater upside risk to the Greenbook forecast of inflation than has been the case in earlier forecasts.

I can appreciate the conditions that motivated such adjustments. I too would like to get the inflation forecast right for a change, and I too want to be careful to balance regularities and possibilities in my forecast. I can hardly argue that the adjustments that were made are implausible or that the productivity path in the forecast is unbelievable. But this does change the balance of risks, in my view, in relation to the Greenbook forecast.

While the policy change is introduced in an understated way in the Greenbook, it is also an important change in the forecast assumptions. It is notable not only because it is preemptive, but also because the increase in rates is sharper than previously assumed and begins earlier. The policy message is clearer than it otherwise might have been, precisely because the staff leaned so far with its forecast assumptions in order to limit the chance that the forecast overstated the risk of higher inflation.

I believe there are some interesting similarities today to the situation we faced at the March meeting when we raised the federal funds rate. Leading up to that meeting, the unemployment rate had moved within a narrow range; it was near the bottom end of that range, near a cyclical low and below estimates of NAIRU. The forecast for near-term growth at that meeting was revised upward from the earlier forecast of trend growth. The resulting projection of above-trend growth was accompanied by a forecast of a decline in the unemployment rate to below its recent rate. As a result, the forecast presented a combination of utilization and growth risks that compounded the threat of higher inflation compared to the earlier forecasts and galvanized support

for a tightening move. Given the changes in the forecast since the last meeting, we again face a similar combination of utilization and growth risks going forward, and those risks are compounded by the fact that we begin with an unemployment rate nearly $\frac{1}{2}$ percentage point lower than was the case in March. Fortunately, we also begin at a lower inflation rate. But as a proponent of opportunistic disinflation, I want to hold on to this lower inflation going forward.

CHAIRMAN GREENSPAN. Governor Phillips.

MS. PHILLIPS. Thank you, Mr. Chairman. The second-quarter slowdown was so shallow that we could easily have missed it. Consumer spending did slow to less than 1 percent, but we had an increase in inventory investment. Even with that increase, inventories are still not out of alignment. Growth so far in the third quarter seems to be quite robust. I am particularly impressed by the uniform breadth of the pickup. Resource utilization has to be getting rather taut, especially for an expansion that has lasted so long. This makes the recent inflation experience all the more impressive.

Going forward, there seems to be considerable strength in the economy. Business fixed investment is incredibly impressive, with support from falling computer prices. In addition, there are favorable returns for fixed investment in a wide variety of areas, not just computers. This strong investment performance also is supported by strong profits and cash flow, providing internal financing. The external financing market also has been quite favorable, with strong equity and long-term debt markets. Bank financing has also been available. The balance sheets for both financial and nonfinancial corporations seem to be in quite good shape. With aggregate demand appearing to hold up, I do not think there is any reason to assume that the nonfinancial sector of the economy is going to fade unless labor becomes the dominant constraint to expansion.

Turning to the labor market, I have argued for a number of months that there is probably more flexibility in that market than is implied by the current unemployment rate. But at some point, it seems to me that flexibility has to run out. The staff's projection of 4-1/2 percent unemployment in 1998 strained even my optimism. But I have been impressed to hear how many people around the table have bought into that projection. So, perhaps I will have to reassess that skepticism.

Businesses are still finding ways to economize on their workforce and attract new workers through training programs, transportation gimmicks, and other approaches such as new ways of looking at and trying to implement welfare-to-work initiatives. But it does seem to me that U.S. demographics will not support job increases of 200,000 per month forever. The wage pressures that we now see in the high-tech and skilled areas eventually will be more widespread. In any case, the strong labor market and the business investment outlook augur well for continued growth in consumption. This leads me to concerns about resource and supply constraints. Price inflation has been held down by several favorable factors including the strong dollar and weakness in the economies of international competitors that have been keeping pressure off commodity and other supply prices. We have not had any major supply shocks for several years in oil or agriculture or wars and so on. Even the much discussed El Nino does not seem to be having much effect yet on prices. Progress on the deficit has helped to ease long-term interest rates, thereby lowering financing costs. Inflation psychology appears to have been considerably reduced. Businesses and consumers seem to be unwilling to accept price increases.

In sum, it is hard to escape the conclusion that the risk is on the upside for inflation. But I also think we have little recent historical experience to judge the impacts of some of the factors underlying the "new paradigm" economy. I would also throw in as significant in this argument the

lower federal deficits and a U.S. economy that is now engaged in worldwide expansion. Other factors are global market integration and few worldwide supply shocks. I cannot fully buy into the new paradigm, but I agree that its proponents raise questions for which we do not have complete answers. It may well be that we are experiencing what is simply an elongated cycle and that more traditional strains will soon be showing up.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Thank you, Mr. Chairman. As we head for coffee in the next couple of minutes, it seems to me that my notes may be a bit of a composite of what has been said around the table. As I began to focus on this meeting, I asked myself first and foremost "what is new?" The answer that came back is "so far, not much." The data story today seems to me to be very much as it has been for some period of time now: strong growth, tighter labor markets, and very little evidence of pressure on unit costs or prices. As I look at the inflationary pipeline to try to get some clue of what may be coming our way, it is very hard to find very much in the way of new pressure. There is some, but not very much.

With regard to indicators of economic activity, we are all very conscious of what is happening in the labor market. We have been discussing that at length. On the other hand, we see no pressure on unit labor costs. In my view, I don't see much pressure emerging in capacity utilization, except perhaps New York hotel rooms, Bill (McDonough)!

MS. MINEHAN. Boston, too!

MR. KELLEY. With respect to financial indicators, one can find very little pressure in the yield curve or in interest rate levels. On the other hand, household wealth continues to rise and there is abundant liquidity in the economy. From the foreign side, there seems to be very little in

the way of new pressure, and from the side of commodities or what one might call goods inputs, none at all.

So, on its face, the appropriate policy once again looks like steady as she goes, asymmetric, high alert. In short, little visibly has changed. And yet, one has to feel, or at least I do, a certain heightening tension driven mainly by the fact that the slowdown we had been expecting did not happen. It is not happening now, and there seems to be very little likelihood that it is going to unless it gets a boost or a jolt from here or elsewhere. During the past four quarters, growth has averaged 3.8 percent, which is very strong. Unemployment has come down over that period from 5.3 to 4.8 percent. And no matter how guilty one may feel about harboring heretical notions about lower NAIRUs or higher productivity or shifting paradigms or whatever, one thing for sure, as many people have observed, is that there are limits somewhere. What is going to keep the economy from pushing right through them, wherever they are? There is plenty of liquidity available at reasonable rates. We are beginning to worry about M2. Household wealth continues to rise; consumers are very confident; jobs are abundant. Our foreign trade prospects seem to be favorable for more domestic growth. There is no meaningful fiscal drag. The Greenbook calls for two more strong quarters before any slowing occurs, and when it does occur, it is at least in part being pushed by the possibility of a stock market break and rising interest rates.

Mr. Chairman, at the last meeting you commented that there are signs that we may be running out the string, and it seems to me that those signs are multiplying.

CHAIRMAN GREENSPAN. On that, we will go for coffee.

[Coffee break]

CHAIRMAN GREENSPAN. Mr. Kohn.

MR. KOHN. Thank your, Mr. Chairman. The sustained strength in final demand since the last FOMC meeting and the staff projection of

building inflation pressures suggest that the question facing the Committee remains whether, or perhaps when, to tighten the stance of policy.

Prices in financial markets do not seem to embody this asymmetry of risks or potential Federal Reserve action, perhaps because, as Mike noted, investors have become entranced by visions of a new era. I say investors because, once again, a survey of economists at primary dealers taken in advance of this meeting indicated that a majority--albeit a slimmer one than in the near past--expects policy firming by year-end. Nonetheless, futures market rates and the overall slope of the yield curve appear to make no allowance for such a rise in the federal funds rate. Moreover, equity prices continue to advance and credit remains readily available, both of which are consistent with a lack of concern that real interest rates or labor costs might move higher to impinge on the growth of income and profits and the ability of households and firms to service debt. If the economists, including the staff, are right that risks are tilted toward higher inflation, investor behavior is complicating the Committee's job because markets are not acting as an automatic stabilizer; indeed, the vigilantes seem to have been lulled to sleep so that financial conditions, if anything, are exacerbating any economic overshooting that may be occurring.

Market mistakes are not usually prolonged, implying that this circumstance would correct itself to some extent without System action if cost pressures do, in fact, develop. As profit margins disappoint, equity prices will fall and lenders may become a bit more cautious. However, such a reaction, by itself, is unlikely to be sufficient or timely enough to forestall potentially emergent inflation pressures. With financial markets determined to be optimistic, markets are more likely to follow than to lead inflation pressures.

If the Committee sees a high likelihood that the economy is or soon will be producing beyond its sustainable potential, action sooner rather than later would be called for. The longer disequilibrium is allowed to persist, the more disruptive can be the actions required to correct it. The Committee has been most successful in recent years and has minimized needed policy corrections by acting preemptively. Following that pattern, if the Committee were confident of an intensification of inflation pressures, it might want to act at this meeting.

But such preemptive policymaking presupposes a level of conviction about the outlook that the Committee may not have today, given the uncertainties about price/output relationships. Allowing for the possibility that there may be no disequilibrium lies behind the arguments for alternative B. In short, the persistent, unexpected, favorable behavior of inflation of late may call into question our understanding of the underlying inflation process. Moreover, some of the projected impetus to inflation

comes from what will be, not what is already, in the pipeline: the projected further edging down of the unemployment rate given strong final demands and the ending of the restraining force of declining import prices. All of these inflation influences seem to have been particularly difficult to pin down of late, and the Committee may want to wait for surer indications that inflation will increase before tightening. After all, unnecessary tightening does have costs in terms of lost output and market disruption. Moreover, with inflation already fairly low, the Committee may view the gains from the resulting additional, unintended disinflation as relatively small. Action once those surer indications begin to emerge may be effective in restraining inflation, provided such action is prompt, and perhaps relatively forceful, but the new elements and uncertainties in the current situation make such indicators--short of the "smoking gun" of a string of adverse inflation data--difficult to identify.

One class of indicators the Committee has used in the past is early signs of pipeline price pressures. Price increases for commodities or goods at early stages of production and the stretching out of supplier deliveries and the like have been important not so much for their direct implications for business costs, but rather as indications of pressures on resource capacity. They were prominent in 1994, helping to cue the need for more tightening than originally anticipated, and timely System action did forestall a more general increase in inflation. However, at this time, with industrial capacity more ample than labor force potential, the cost and price pressures may be less visible and more gradual. Rather than easily observed increases in crude and intermediate materials prices, pipeline pressures may manifest themselves in a steady upcreep in labor costs and a gradual squeeze on profits.

Another indication that tightening is in order might be the continued growth of aggregate demand beyond that of the economy's potential. It was the threat of persisting unsustainable growth in demand that motivated the Committee's firming in March, and the current circumstances closely resemble those the Committee faced at that time, but with utilization rates in labor and capital markets now higher. Nonetheless, the Committee may see some differences in the situations that counsel caution. For one, the real federal fund rates probably has been edging higher without Committee action, as inflation and inflation expectations appear to have abated. For another, the flow of unexpectedly good inflation news has been extended, suggesting a changing environment or at least more uncertainty. Despite these possibilities, the Committee at some point still may want to consider tightening on the basis of above-trend growth and before even pipeline pressures on prices or labor costs are clearly evident. Growth that is accompanied by rising utilization rates is, by definition, unsustainable, even in a new era. If there are no signs of moderation, the Committee may desire

some additional assurance that it is not accommodating a major build-up of inflation pressures and subsequent correction.

In the staff forecast, above-trend growth going forward is supported by accommodative financial conditions, despite high real short-term interest rates. This circumstance suggests another set of factors that might contribute to a decision to tighten--signs that financial conditions were becoming even easier. Unless potential output can expand considerably faster than now seems likely, substantial further increases in equity prices, for example, or a drop in the dollar, or a further turn toward easier credit conditions would seem inconsistent with demand being damped by enough to prevent a further overrun of potential output. The staff does expect most nominal interest rates to edge higher, even if the stance of policy remains unchanged in coming months. But a particularly worrisome sign might be an increase in inflation expectations not coupled with an increase in real rates. This combination could be read as signaling doubt about the Federal Reserve's resolve to limit any potential increase in inflation. Thus far, we have been living with the virtuous part of the circle of inflation determination: Damped inflation expectations have themselves helped to hold down inflation despite high resource utilization. While the key expectations in this regard are those on Main Street, a deterioration on Wall Street that persisted could be an early warning that the circle might turn vicious.

Money growth might be one element in assessing whether financial conditions have been too accommodative. The expansion of both M2 and M3 has been much more rapid in recent months than the staff had anticipated. In part, the overage seems to reflect asset and liability allocation decisions unrelated to current or future spending: Demand for M2 assets picked up in the wake of the stock market weakness in August, and was reflected in particular in rapid growth of money market funds; M3 has been boosted by bank decisions to fund in U.S. rather than Eurodollar deposit markets. But rapid growth in M3 also is consistent with ample resources being available to the banking system to support continued aggressive lending. And strength in M2 was broader than just money funds--nearly all major categories came in above our expectations. In recent years, with M2 demand more stable and opportunity costs not varying much, quarterly variations in money growth have been roughly correlated with quarterly variations in the rate of expansion of nominal GDP. In this context, the third-quarter pickup in M2 growth looked anomalous relative to the estimated slowing of nominal GDP, but some of the latter now appears to be in the process of being revised away. We are predicting a relatively sharp slowing of M2 growth over the months of the fourth quarter to keep quarterly average growth from greatly exceeding predicted GDP. Money running appreciably above our forecast might be

one indication that financial conditions were accommodating somewhat stronger spending than anticipated.

At this point, a tightening would catch markets unawares, and could provoke a considerable reaction. Such a market reaction would arise both because participants, at least those controlling the investments, do not believe that tightening is necessary, but because they also may feel that they have been encouraged in this belief by Federal Reserve statements. To some extent market reactions, occasionally strong, are desirable because changes in interest and exchange rates and in equity prices are key links in the transmission channels for policy. Strong reactions and surprises also are inevitable from time to time in an uncertain economic environment in which the Committee's assessment of the requirements of policy may not always match the markets'. Moreover, a sense that the markets needed to be primed for every action could constrain the Committee undesirably, tying its hands to act or not at certain times depending on market preparation. In these regards, market surprise is just the counterpart of macroeconomic uncertainty and flexibility in policymaking. But surprise can also grow out of misunderstanding. If markets are to have a chance to perform their stabilizing roles, they need to understand the concerns of the Committee and the risks it sees. These can be clarified in the Minutes and elsewhere without pre-committing the Committee to particular policy actions or necessarily expecting that the markets will share the Committee's views and expectations.

CHAIRMAN GREENSPAN. Thank you. Questions for Don?

MR. JORDAN. Don, you mentioned that a substantial slowing in the growth of M2 was necessary for such growth to be consistent with the staff forecast of nominal GDP in the fourth quarter. The Bluebook has M2 growth down to 4 percent in November and December. This suggests to me that the growth of overall commercial bank balance sheets--whether we focus on the demand for credit, the supply of credit, or some interaction between them--also has to decelerate very sharply from what we have seen in recent months. The balance sheets still have to balance. Given an unchanged funds rate and the Greenbook-type forecast of the real economy, what produces that significant deceleration in the growth of bank balance sheets and therefore money growth?

MR. KOHN. We have a modest deceleration in bank balance sheets in the fourth quarter. We do not have a major deceleration. Let me start with the bank balance sheet picture. We do not find the relationship between those balance sheets and money growth to be very tight. Certainly, the relationship between M2 growth and bank balance sheets is not at all tight. There are just too many other sources of funds for banks besides M2 funds. In fact, we have found that the relationship of the balance sheets and M3 also has not been very tight. One reason is that when banks substitute domestic dollar borrowings for Eurodollar borrowings, that tends to boost M3 growth and vice-versa. The other factor has to do with the institution-only money funds. There has been a trend for those money funds to compete aggressively for corporate cash management business. In effect, corporations are moving away from the management of their own liquidity by putting it in the hands of the institution-only money funds. We include the institution-only money funds in M3; we do not include corporations' own direct holdings of commercial paper or Treasury bills. Therefore, that substitution also has tended to cut the link between M3 and bank credit. We look at that when we do our M3 projections. We try to make sure the residual funding of bank credit, other than that provided by the monetary aggregates, is sensible, but we do not force M2, M3, and bank credit to conform to the same growth path. We see a little slowing in bank credit growth in the fourth quarter, but not much. It has been very strong. Business loan growth in particular has been very robust, and we think that such growth will slow a little but still remain quite high. We have some further increase in business borrowing needs and some flattening out, to a certain extent at least, in the growth of profits.

MR. JORDAN. Your answer says that we can get a slowing in the broad money measures without a slowing in the growth of aggregate bank credit. You also suggested in your earlier remarks that if we do not see the slower growth of, say, M2 that you are now projecting, that

might be evidence that we are not getting the slowing in nominal demand. If it is not an opportunity cost argument, what is the argument that produces the slowing in M2 growth?

MR. KOHN. We track M2 growth to the projected increases in nominal GDP. The slowing in the fourth quarter in M2 growth arises largely from our sense that there has been a lot of M2 built up over the months of the third quarter. There is enough to finance the nominal GDP that is forecast for the fourth quarter. In fact, there is almost more than enough because, even with our projected slowing in M2 growth, we have a slight decline in velocity predicted for the fourth quarter, which is an unusual event these days. Basically, we are saying that there is enough liquidity out there to finance the predicted nominal GDP with only moderate further M2 growth. If we saw much more rapid further growth, we would wonder why people are accumulating those M2 assets. We would have to look carefully. There could be an asset allocation situation that was not related to spending, but it could also be that people were realizing more income and doing more spending.

CHAIRMAN GREENSPAN. Are there any other questions for Don? [Pause] If not, then let me get started.

I think the incoming indicators are pointing more clearly to underlying trends in this economy, although they are scarcely adding to our understanding of these trends. Let me start with what I think is the most interesting event of recent weeks, the extraordinary acceleration in capital investment. A big increase in capital investment this late in the business cycle is really quite startling. If we focus on the orders pattern, we see it suddenly take off. You will recall that this expansion in capital investment started to accelerate in 1993 after a very sluggish period and has progressed at a fairly pronounced rate. This suggests that anticipated rates of return on investments have risen. More precisely, prospective internal rates of return must be rising or else we cannot

explain why so many firms are undertaking large investment programs. Part of the explanation is unquestionably the desire to expand capacity. That is especially the case in the high-tech area where there has been very substantial investment, a not insignificant part of which has been for capacity expansion. But there also is very little doubt that the plant managers who propose these new investments anticipate very significant improvements in the efficiency of their operations, and that ultimately leads to increased productivity. They look at it as cost reduction, but on a consolidated basis it obviously nets out to a significant drop in the ratio of hours to output, the inverse of productivity.

We have several indications that the prospective productivity improvements may be materializing. First, the earnings figures still seem to be rising. It is too early to get a good fix on the third quarter--obviously no reports for the quarter have come out--but security analysts' estimates do show what appears to be a seasonally adjusted rise in the earnings of S&P 500 companies for the third quarter. Second, there also is a quite surprising acceleration in manufacturing productivity in the data through August, and it is now running at an annual rate somewhere around 7-1/2 percent. To be sure, the August figure is a little suspect because, as you may recall, the initial estimate of industrial production is based in part on hours worked coupled with a presumed productivity number. But that is not the case for July. Apparently, there was a quite significant and surprisingly strong rise in electric power use, and all other indicators suggest that July IP was quite strong. So, manufacturing productivity appears to be rising at an annual rate of about 7-1/2 percent for the third quarter.

Third, although we have little available data, the evidence we do have for various types of facilities is consistent with a general pattern of improved efficiency and flexibility. I have mentioned before that with the ratio of unfilled orders to shipments declining in the capital goods

area, specifically excluding aircraft, we are getting a pronounced and inexorable decline in the lead times on the deliveries of capital equipment. In a sense, this is consistent with the product cycle in a variety of other areas. There is no doubt that we are seeing a fairly marked decline in lead patterns and an increase in the ability of companies to meet unanticipated demand rather quickly through new facilities, whereas they could not do that before in any readily observable sense. We get confirmation of this phenomenon if we compare the vendor performance numbers of the NAPM with the capacity utilization data, either for primary processing or for total manufacturing. What we see is progressively lower vendor performance numbers at successive peaks in activity. This means that the bottlenecks and shortages are falling relative to any constant operating rate. This is, in effect, consistent with the declining lead times. At the end of the day, one would presume that we could keep squeezing and squeezing and, as indeed the new era people like to say, capacity would no longer be a restraint. If we literally stayed with the facilities that are coming on stream, there is a strange degree of verifiability of that. We can see that there are very few constraints, very few shortages. For example, the list of shortages we get from NAPM now has one or two items, whereas we used to get 15 or 20. Something different is happening in the facilities area. This has led a large number of executives, mainly in the corporate area which is where the forefront of the new era issue is arising, to conclude that technology is continuously enabling facilities to be less and less a constraint on activity. Indeed, when we include the globalization factor, it looks as though inflation is dead, the world has changed, and the central bank ought to get out of business one way or the other.

The major element that is missing in that argument is biology! Biology is what one looks at when we are trying to find the lead time, not on facilities, but on people. I know of no evidence suggesting that that factor has been altered in any significant manner. As a consequence,

leaving aside the question of the unemployment rate, the NAIRU or whatever, we have a fundamental disequilibrium in the labor market best characterized by the fact that employment is rising by 2 million each year and the population of people of working age who wish to work, including immigration, is going up 1 million annually. The 1 million difference between those two statistics over the last three or four years may be broken down into a net flow of 600,000 individuals per year who moved from unemployment to employment and another net flow of 400,000 people per year who moved from "not in the labor force but say they want a job" to being employed. Remember, the definition of unemployment requires that a person be making an active effort to secure a job in the previous five weeks. The consequence of saying "I would like a job, but I have not been looking" is that it throws that person out of the labor force.

The group of people outside the labor force who say they want a job has contributed almost as much as the decline in unemployment to that difference between employment increases and the growth of the population of people who wish to work. This group of people is now at the lowest proportion to the working age population since 1970. I cite the year 1970 solely because the chart I got from the staff goes back only that far. There have been some very dramatic declines in their number since 1996 as employers have drawn very heavily from that group. We do not need to consider the NAIRU and the unemployment rate because, while they obviously are more sophisticated approaches to this issue, we do not have to get terribly sophisticated. All we have to do is to observe where the unemployed people are, and there clearly are fewer and fewer of them.

Since early 1996, we have seen a rise in average hours worked. That is another way of suggesting that the pressures that we are seeing in this taut labor market are inducing employers to squeeze the available supply of workers. If the supply were really there, we would not be getting this type of pressure on the average workweek. I think this pressure has been the equivalent of

about 500,000 additional workers at an annual rate, so that the comparison would really be 2-1/2 million versus 1 million.

I have argued before that we have not seen an acceleration in wages because of the job insecurity phenomenon. We have seen significant evidence of that phenomenon in the last five years. The latest evidence that has come to my attention is data on the quite dramatic increase in the number of people aged 25 to 34 who are going back to college and the huge increase in the amount of on-the-job training. There is an awareness that one can no longer count on getting lifelong job skills just by getting a college degree or even a high school degree. What we are looking at is still, as far as I can judge, a fear of job skill obsolescence and a significant shift toward job security in lieu of wage gains.

I have maintained in raising this issue over the years that there is a limit as to how far this job insecurity effect can go. We are beginning to see some signs that that limit has been reached. Earlier polls indicated that from 1991 to 1995 job insecurity or fear of job layoffs had risen very significantly despite the tightening of the labor market, but the responses in these polls have now shaded off in the other direction. The proportion of people in the labor force who decided voluntarily to leave their job to seek another, which had been exceptionally low for quite a long period of time, has now popped up, suggesting less job insecurity. So, the data that tended to argue for job insecurity are beginning to shift a little. They have not reversed sharply, but they are beginning to be shaded.

The question that we are running up against is that all of this is plausible, but in effect we still have negligible inflation in the system. It may very well be that productivity increases are creating enough in the way of absorption of hourly labor costs to prevent rising prices. Indeed, there is no evidence to suggest that there is any pipeline inflation or any other type of inflation.

The fundamental disequilibrium, and I don't see how we can get around it, is the fact that the rate of increase in overall demand is creating a demand for employment that cannot be satisfied indefinitely. The trouble is that we don't know where that pressure point is located, but it has to exist. I think, as Mike Kelley said, there have to be limits. Larry Meyer also said that in a speech the other day. We do not know exactly where the limits are at this point, but the longer we stay on this course, the more this disequilibrium continues to spread. It is conceivable that productivity could accelerate to the point that labor requirements fall without a change in overall domestic demand. There is no evidence of which I am aware to suggest that outcome because employment still seems to be growing at a fairly good clip. It is conceivable that we may suddenly find employment growth starting to fall short of its current trend while output growth is maintained, which would suggest that productivity is accelerating, but at the moment there is no evidence of that in the data.

Although it is conceivable that we may get bailed out by a sudden discontinuous acceleration in productivity growth, that is something that has not occurred in the past to my knowledge. There is no doubt, however, that a lot of the synergies of the new technologies are emerging. That development is producing very large investment opportunities. The joining of lasers and fiber optics has created huge demands for telecommunications investment. The continuous breakthroughs in the computer area in conjunction with the new communications systems created and are now fostering the extraordinary expansion in the Internet. So, one can argue that it is possible that we could get enough acceleration in productivity to close the gap between labor supply and labor demand. However, the gap looks so large to me that I will suggest that arithmetically we would need a full percentage point acceleration in productivity increases to close the gap. Is it possible? Yes. Is it likely? I do not think we can depend on that.

With respect to policy, my view is that we are getting repeated reprieves because the price level is not changing much. I do not think we should move today, but I do think the probability that we will be forced to move at the next meeting has gone up quite considerably. I don't know how high that probability is, and I do not know what we would do if we ended up with a CPI of zero in the next report. We will be getting the ECI between now and the next meeting, and it could show an increase of 1 percent. I doubt it, but who knows? In any event, I think we are getting close to a policy move. It is important, for all the reasons that a lot of you have stated, to be in front of the curve. We are not arguing that the probability of rising inflation has increased, but the possibility that we may be wrong is rising. You do not need an above 50 percent probability of being wrong to take out insurance. I don't know what the data are going to look like in the next four or five weeks, but my guess at this stage is that there is easily a 50/50 chance that we will decide to move in November because the presumption that we can wait until just before Christmas to move is not going to be something about which a lot of us are going to be enthusiastic. In any event, I am putting on the table a "B" directive with continued asymmetry. Vice Chair.

VICE CHAIRMAN MCDONOUGH. Mr. Chairman, I very much believe that what you have recommended is what we should do, and let me briefly give some reasons. The factors leading to a combination of good economic growth and ever better price performance--a firm dollar, restrained wage demands, and the excellent performance of health benefit costs--clearly have to be transitory and cannot be depended on to continue to give us the present combination of favorable developments as we move forward. I do not think we can bet on faster productivity gains because such a bet would involve a leap in the dark. We have a sufficient basis in the transitory factors that I just mentioned to explain why we have had the good economic performance.

Therefore, I think it would be bad policy to maintain the present stance in the expectation that productivity gains might bail us out.

If that is the case and policy needs to be changed, then the question obviously is, why wait? We have been telling the American people, who are infinitely more important than the market participants, that the purpose of the Federal Reserve is to create sustained economic growth and that price stability is a means to that end. With sustained economic growth clearly taking place and with price performance even better than anyone had anticipated, including us, we need to do some informing of the public before we move. Since the likelihood is, as you have suggested, that we will wish to firm policy at the next meeting, I encourage you to seize an opportunity in a speech or Congressional testimony or some other avenue where you can lay out the line of thought that you just gave, including the wonderful news that we have fewer discouraged workers, more people coming into the workforce, and all the other favorable developments that, as you suggested, can be and should be mentioned as evidence of the great success achieved in the functioning of the U.S. economy. I think that type of presentation to the public would make people understand, though not all would like it, why we would choose to firm policy in the near future, and I encourage you to make that presentation. In my view, that is the kind of thing that has to be done by the Chairman of the Committee. Others can say what they like to be supportive, but it really is only the Chairman who speaks for the Committee. Therefore, I think it is important that you do that before the next meeting.

I very much believe that at the present time "B" asymmetric is the right policy choice.

CHAIRMAN GREENSPAN. Governor Rivlin.

MS. RIVLIN. I agree with the policy recommendation and also with Bill McDonough's notion that we should be talking more about why we think the risks are on the upside. That said,

however, I think I am a little less convinced than you that we will have to move in November or December.

CHAIRMAN GREENSPAN. I am saying there is a 50/50 probability; what are you saying?

MS. RIVLIN. All right, you said 50/50; I heard something stronger than 50/50. I would say the odds are perhaps a little less than that. That is because I am persuaded that we are dealing with a much less inflation-prone economy than we were, and I am a little less persuaded by the biology argument in part because it depends on a fixed labor force. I'm not sure that our labor--

CHAIRMAN GREENSPAN. No, it depends on a fixed population.

MS. RIVLIN. All right, it depends on a fixed population.

CHAIRMAN GREENSPAN. And fixed immigration.

MS. RIVLIN. Okay, but that is what I am questioning. If some of our labor force is in Bombay or Mexico, and we have much more flexibility in outsourcing and even in calling on high-skilled people in distant places, then this argument is a little less overwhelming. I guess I also have been a little more skeptical about the job insecurity explanation of why we have had such limited wage increases. That puts a lot of the explanation on the worker side. I think we also have had a strong disinclination on the employer side to grant wage increases because of the correct perception that the economy is very competitive for numerous reasons, including the reasons we have been talking about. That said, I think we need to accumulate more evidence before taking action, but your policy recommendation is the right one for today.

VICE CHAIRMAN McDONOUGH. Could I add a comment? Just a brief one?

CHAIRMAN GREENSPAN. Sure.

VICE CHAIRMAN McDONOUGH. We have been doing a good deal of work at our Bank on where inflation stems from on the wage side, and it is not in the goods-producing industries. Therefore, the labor force that does exist in Bombay and Mexico does not help to explain our wage behavior because inflation comes from the services part of the economy.

CHAIRMAN GREENSPAN. The Bombay example involves services.

VICE CHAIRMAN McDONOUGH. But for most services there is no import competition.

CHAIRMAN GREENSPAN. The Bombay example relates basically to the use of computer software. It involves very few people.

VICE CHAIRMAN McDONOUGH. The portion of the workforce that is most likely to give us the inflationary pressure, at least on the basis of our analysis, is in the services areas where there is no possibility of competition with imported services. That pressure initially kicks off in the wages of service workers, but with a not very long lag it seems to spill over into general wage inflation and over into the price side.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, given uncertainties about the magnitude of a possible supply shock, I am somewhat more comfortable with data and forecasts of nominal GDP growth than with forecasts of the split between real GDP growth and inflation. Nominal GDP has grown moderately over the past year and is projected to slow in both our forecast and the Greenbook. I think there is a reasonable chance that nominal GDP growth will slow, and such an outcome would make it unlikely that a significant inflation problem would develop. Therefore, I am willing to leave the funds rate unchanged for now, and I can support Bluebook alternative B with asymmetric language to the upside. I do believe, however, that a strong case can be made to take out a small

insurance policy against the likelihood of higher future inflation, but delaying such a decision until, for example, November is not likely to be the difference between success and failure.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, without putting odds on what we need to do at the next meeting, I think I understand where you are coming from, and I can support your recommendation.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. I agree with your recommendation, and I have an open mind about what will occur in November and December.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. I agree with your recommendation, Mr. Chairman. I do think that the probability is higher that we will have to move in November than I thought it was, say, four or so weeks ago. I agree with President McDonough that it is very important for us to alert the American people to our thinking. I know this is a delicate matter because we are waiting for data to come in during the next several weeks before we know for sure what the probabilities are going to be. But I do think it is important that you lay the groundwork for any move that you anticipate the Committee would want to make in the future.

CHAIRMAN GREENSPAN. I thought I was doing that in the July Humphrey-Hawkins testimony. It turned out that instead of the bond market falling by up to a point or so, as I thought it would after that testimony, it went in the other direction. The market's response depends on what it wants to hear. One of the things I have learned is that sending a message is very difficult unless it is absolutely unequivocal because people hear what they want to hear. It is a tricky matter.

MR. MOSKOW. I thought you were very effective in sending a message earlier this year.

CHAIRMAN GREENSPAN. Yes, I think the March message worked well. President Guynn.

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

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. Thanks, Alan. I would prefer alternative C but I could accept your recommendation. The stage setting is probably very important, although I think we need to recognize that at some point it may be only actions that will get the message across. I think, as was clear in my comments today and earlier, that the odds of our having to act are quite high. In sending a message, I believe it is very important that we focus on the benefits of low inflation and specifically the benefits of locking in the very low rates of inflation that we have as opposed to the evils of rising inflation. That approach has the potential of playing better, and Bill McDonough had some good thoughts with respect to your talking about this. We cannot come across as taking credit for the current economy, but we can certainly relate some of our argument to the benefits we are enjoying today in this economy that is creating a lot of jobs and opportunity.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. I, too, accept your recommendation largely because I think there is still sufficient uncertainty to warrant caution. While it is tempting to take the attitude that we ought to sit back and enjoy this economy, I see a danger in that. The danger is that we will wait too long before acting, as has occurred on occasion in the past. We ought to remain sensitive to that possibility, and that leads me to view November with a good deal of interest.

CHAIRMAN GREENSPAN. Governor Meyer.

MR. MEYER. Mr. Chairman, I agree with you and I endorse all elements of your policy recommendation: no change in the funds rate today; maintaining an asymmetric directive; and, importantly, recognition that there is an increased possibility, if not a presumption, that a tightening move will be justified in November, assuming the data between now and then confirm the thrust of the Greenbook forecast.

My view is that monetary policy should continue to lean against the cyclical winds and be cautiously preemptive. In my view, such a preemptive move might well be in order at the next meeting. By that time, we will have two additional employment reports, the third-quarter ECI report, and a better feel for the momentum of the economy early in the fourth quarter. This timing is also consistent with my view that there are windows of opportunity for policy tightening. We are not, in my judgment, at such a window at this moment, but I expect we may be approaching one. It is easier to change policy, for example, when the financial markets anticipate a move and when the public will understand it. It is easier for this reason to tighten when growth is above trend and the unemployment rate is moving lower than when the economy has slowed to trend and the unemployment rate has stabilized, whatever its level.

In my view, to maintain a preemptive course, to sustain the decline in inflation we have recently achieved, and to take advantage of a possible window of opportunity, we should be prepared to tighten in November if the data confirm continued above-trend growth and rising utilization rates.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Mr. Chairman, I can accept your recommendation. I also agree strongly with the thrust of your comment that the probability of having to tighten in November has risen significantly. I hope that you will make some public comment, and I agree with Bill

McDonough and others that doing so would be productive. I recognize that it is difficult to deliver the message, but I think some comment would be in order.

I would just add that a principal reason in my view for the considerable success of our policy over the last three years as a whole is our consistent commitment to hold the line on inflation built largely on our preemptive tightening actions in 1994. That series of actions was one of the most successful we have undertaken in recent monetary policy history in this country. And it was successful precisely because we acted proactively rather than reactively. Because of that, we earned the public's confidence. There is a lot of talk about a new paradigm. I think that increased confidence and credibility is a big part of that new paradigm. But that confidence has to be nourished, and I think there is a good chance for you to do that in November.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I, too, am supportive of your proposal, Mr. Chairman. I also would have supported a small preemptive move at this meeting, but I recognize that the lack of a real smoking gun in terms of inflation, either existing or in the pipeline or guessed about, makes that sort of recommendation a bit difficult to entertain at this point. I agree with Alice Rivlin that we probably are facing a less inflation-prone economy than might have been the case in earlier decades, but I also think that the factors that have contributed in a major way to this situation are more transitory than new paradigmish and their effects may be coming to an end. I think benefit cost increases, wage increases in the face of increasing labor shortages, and the potential for a reduction in the value of the dollar given the large size of our external deficits will at some point start to work together to make this less inflation-prone economy more inflation-prone. I agree with the comments about being forward-thinking and locking in the benefits of reduced inflation.

I have some concern about the idea of communicating to the markets. With respect to what you said in your Humphrey-Hawkins testimony, I told a lot of people to read the whole testimony, not just what was in the headlines of the New York Times or the Wall Street Journal. There was a good deal of balance in that testimony. I think it is really difficult to communicate these things in such a way that people understand the intended message. Don Kohn made some good comments to the effect that surprising the markets, particularly in a boom-like environment either existing or building, is not all that bad a thing. I wonder whether we can communicate effectively in the absence of real inflation, but I think we need to move before real inflation materializes. In my view, anyway, there is more than a 50 percent probability of our moving at the next meeting.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. I think what is going on in the labor markets is a fascinating subject, one that I wish I understood better. I also wish that our friends on the European continent understood a lot better than I do what is going on in our labor markets. It does tell us a lot about the distribution of the current prosperity and about how well all the wealth creation is being shared by our people. But I am not sure it tells me a lot about the purchasing power of money, at least not in a direct way. I also am very interested in all the discussions about capacity, capacity utilization, productivity, efficiency, and capital formation because even though they too don't tell me anything directly about what is going to happen to the purchasing power of money, they give important information about things that I think directly bear on the purchasing power of money. The demand for labor is a derived demand; it is derived from the demand for goods and services. That in turn, as Bob Parry says, depends on nominal spending, which does have something to do with money. I am less comfortable than Bob seemed to be that we will get the needed deceleration in nominal spending

growth. But with respect to the stories about productivity, capacity, capital formation, and all of that, if the perceived real return to productive capital is rising due to technology, including both wealth effects and substitution effects, that indicates to me that the demand for high-powered money must be declining. But what we see is an increased demand for bank credit to finance it all. That effect is somewhat like that associated with the old real bills doctrine when it signaled what was interpreted as an increased demand for base money while modern theory tells us the quantity needed to go down. We should not be seeing an acceleration in base money growth at this stage. So, I think that we are probably late. What I would be looking for in the next six weeks is what Don Kohn alluded to, namely the much needed deceleration in the broad measures of money. If we do not get it, then I will conclude that we made a mistake.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. I concur, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Phillips.

MS. PHILLIPS. I also agree with "B" asymmetric. The strength of the economy makes the asymmetric directive appropriate. In view of the recent inflation experience, I think there is some time to let things develop before removing the punch bowl.

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I agree with your recommendation today. I would keep an open mind about the next meeting and wait and see what the data show and not be praying for bad news so we have an excuse to do something.

With regard to 1994, I do think it was a very successful preemptive strike experience. Two fundamental differences between now and 1994 are that we went into 1994 with a 3 percent federal funds rate, zero in real terms, and had been there 1-1/2 years. Also, throughout 1994, we

had pipeline inflation going straight up. Commodity prices peaked in mid-1995 and have not gone up since then. Those are two important things to keep in mind.

CHAIRMAN GREENSPAN. That explains why we have not moved since March. Okay, let's have a vote on "B" asymmetric after you have read the directive.

MR. BERNARD. I will be reading from page 13 of the Bluebook: "In the implementation of policy for the immediate future, the Committee seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 5-1/2 percent. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, a somewhat higher federal funds rate would or a slightly lower federal funds rate might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with some moderation in the growth of M2 and M3 over coming months."

CHAIRMAN GREENSPAN. Call the roll.

MR. BERNARD.

Chairman Greenspan	Yes
Vice Chairman McDonough	Yes
President Broaddus	Yes
President Guynn	Yes
Governor Kelley	Yes
Governor Meyer	Yes
President Moskow	Yes
President Parry	Yes
Governor Phillips	Yes
Governor Rivlin	Yes

CHAIRMAN GREENSPAN. The next meeting is on Wednesday, November 12.

END OF MEETING