

Meeting of the Federal Open Market Committee

March 30, 1999

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, March 30, 1999, at 9:00 a.m.

PRESENT: Mr. Greenspan, Chairman  
Mr. McDonough, Vice Chairman  
Mr. Boehne  
Mr. Ferguson  
Mr. Gramlich  
Mr. Kelley  
Mr. McTeer  
Mr. Meyer  
Mr. Moskow  
Ms. Rivlin  
Mr. Stern

Messrs. Broaddus, Guynn, Jordan, and Parry, Alternate Members of the Federal Open Market Committee

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

Mr. Kohn, Secretary and Economist  
Mr. Bernard, Deputy Secretary  
Ms. Fox, Assistant Secretary  
Mr. Gillum, Assistant Secretary  
Mr. Mattingly, General Counsel  
Mr. Prell, Economist  
Ms. Johnson, Economist

Messrs. Cecchetti, Hooper, Hunter, Lang, Lindsey, Slifman, Stockton, and Rosenblum, 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

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2

Monetary Affairs and Research and Statistics respectively,  
Board of Governors

Mr. Reinhart, Deputy Associate Director, Division of Monetary  
Affairs, Board of Governors

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

Ms. Pianalto, First Vice President, Federal Reserve Bank of Cleveland

Ms. Browne, Messrs. Eisenbeis, Goodfriend, Hakkio, Kos, Rasche, and  
Sniderman, Senior Vice Presidents, Federal Reserve Banks of  
Boston, Atlanta, Richmond, Kansas City, New York, St. Louis,  
and Cleveland respectively

Messrs. Judd and Weber, Vice Presidents, Federal Reserve Banks of  
San Francisco and Minneapolis respectively

Transcript of Federal Open Market Committee Meeting of  
March 30, 1999

CHAIRMAN GREENSPAN. Good morning, everyone. Would someone like to move approval of the minutes for the February 2-3 meeting?

VICE CHAIRMAN MCDONOUGH. So move.

CHAIRMAN GREENSPAN. Without objection. We will turn to Peter Fisher.

MR. FISHER. Thank you, Mr. Chairman. I will be referring to the three pages of colored charts that should be on the table in front of you. 1/

As you can see in the top panel, this time I have added in the 6-month forward 3-month rate as a black dotted line; it should not be infected with any end-of-year Y2K premium, at least for the next few days. You will recall that I used to include routinely the 6-month forward rate in all of these panels until all three of the money market yield curves became so compressed that they were too hard to see on the charts.

Looking at the top chart on the U.S. dollar forward rates, you can see that the upward drift in money market rate expectations began in mid-to-late January and was accelerated significantly by the market's initial reaction to the Chairman's Humphrey-Hawkins testimony. These heightened expectations began to unwind rather quickly over subsequent days, however, as data came out indicating an absence of price pressures and comments by members of the Committee suggested an absence of urgency for a monetary policy move. But even ignoring the peaks of late February and early March, as shown in the chart both the 9-month forward 3-month rate and the 6-month forward 3-month rate are almost 40 basis points higher today than they were in mid-January. In particular, I would note that the 6-month forward 3-month rate, the black line, has been trading for the last few days at a premium of about 15 to 20 basis points over the current 3-month rate. And that is the widest spread between that forward rate and the current rate since the June-July 1997 period.

The middle chart depicts the German mark and euro forward rates. It is intriguing to see, even with an eventual further ease by the ECB being widely discussed, the extent to which those forward rates moved up in late February and early March coincident with the rise in the dollar forward rates. In the bottom chart, on the Japanese forward rates, I would suggest that the spread shown there between the 9-month forward and the current

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1 / A copy of the material used by Mr. Fisher is appended to the transcript. (Appendix 1)

rates probably reflects a Y2K premium and should be interpreted that way and not as the anticipation of a significant upward movement in Japanese rates.

Turning to the second page, let me go over some yield and spread relationships. In the top panel you can see yields on selected 10-year government bonds for the United States, the United Kingdom, Italy, and Germany and for the 10-year U.S. inflation-indexed security. A very simple point to note in this panel is that during the period from October through December some rather dramatic changes in the relationships among major G-5 government bond yields emerged, and those changes occurred abruptly. But from January forward--dating roughly from the time of the real float on January 15th--you can see that these bond yields began to march in parallel, giving the market a rather strong sense that U.K. and continental government bond markets are following the lead of the U.S. Treasury market.

The middle panel shows a series of spread relationships over the on-the-run Treasuries. In the top orange line, you can see that there was a narrowing in the mortgage-backed spread as long-term rates backed up in this country, reflecting a reduction in the prepayment risk for the mortgage-backed portfolios. It is interesting that the other spread relationships have remained rather constant, notwithstanding the backup in the U.S. Treasury yield curve and the rather heavy issuance of securities in the fixed-income market. I think this at least suggests a growing comfort level in fixed-income markets with the current spread relationships. On the other hand, the bottom red line, the twice off-the-run U.S. Treasuries, shows that while this spread has narrowed a little to around 15 basis points, or roughly half its October peak of 30 basis points, it is still 3 times its pre-Russian-crisis norm of around 5 basis points. So, while there has been some unwinding of anxiety in that area, there still is a rather pronounced desire for liquidity in fixed-income markets; market participants seem anxious to hold instruments that they can sell quickly if they want to.

In the bottom panel, you can see that both Mexican and Argentine Brady spreads have returned to, or just past, their pre-Russian-crisis levels. And the Brazilian bond is now trading at a spread against Treasuries that prevailed in December of last year, before the intensification of the problems in Brazil.

Turning to domestic open market operations, page 3 has a scatter plot similar to one I have shown you before in which each dot represents a day. The horizontal axis shows the divergence of each day's effective funds rate from the target rate. And the vertical axis depicts a measure of volatility

expressed by the number of basis points contained within one standard deviation of trading around the effective rate. The blue dots on the chart cover the period from September 30th of last year through February 3rd and the red dots cover the days since your last meeting.

Eyeing the chart, you can see that the red dots are giving us a rather better cluster around the target rate, showing a tendency toward lower volatility than we experienced in the rather difficult period from the end of September through your February meeting. In the lower left corner is a panel with a more precise measure of this to give you a sense of how the funds market is calming down. That panel shows the median value of the daily divergence of the effective rate from the target rate regardless of sign and the median value of the daily standard deviation. Looking at the first line, in 1997 there were as many days on which the effective rate diverged from the target by less than 7 basis points as there were days on which it diverged from the target by more than 7 basis points. Similarly, on roughly half the days the standard deviation was less than 9 basis points and on roughly half the days it was more than 9 basis points. As you can see, those values were more or less maintained through much of 1998 until the end of September. After that we experienced a rather significant period of volatility, when roughly half the days had an absolute deviation from the target of more than 15 basis points and a volatility standard deviation of more than 24 basis points. But, as seen in the red line covering the period since the last FOMC meeting, the values have returned to more normal levels.

Looking back, I think it is quite clear that in the fourth quarter of last year we faced a very anxious funds market, with elevated and erratic demand for excess reserves leading to volatility and firm rates. To be candid, in January we on the Desk probably were slower to reduce our anxiety than the market; we were just a little behind the market in unwinding those anxieties and we were probably tending to be a bit generous in the provision of reserves. But that effect was overwhelmed by the generosity that the weather-induced float provided, giving us some rather volatile and squishy-soft days in January. But we seem to have come through that, and in the last intermeeting period the funds market appears to have returned to much more muted and normal conditions.

Let me conclude by noting that starting this coming Monday we will be moving our routine operating time to around 9:30 a.m., one hour earlier than has been our practice. I want to thank the staffs of the Board and the Reserve Banks as well as the Treasury for their efforts to provide data on reserves to us more quickly so we can do this and participate in the market when it is a little more deep and liquid than later in the day.

We had no foreign exchange intervention operations to report. We concluded the foreign currency rebalancing that the Committee authorized, which we will report on in full in the written quarterly report we will be sending you during the month of April. I will need the Committee's ratification of our domestic operations. I will be happy to answer any questions.

CHAIRMAN GREENSPAN. Questions for Peter?

MR. POOLE. I have a quick question regarding the on-the-run and off-the-run Treasuries. Could you remind me what the normal relationship has been over the last 20 years or so?

MR. FISHER. I have data going back about 15 years, and the difference has been around 5 or 6 basis points.

MR. POOLE. I just wanted to be sure that the less than 7 basis points you were talking about is not the anomaly against the norm.

MR. FISHER. No, it is not.

MR. POOLE. The September 30 through January relationship is the anomaly.

MR. FISHER. Yes, the 5, 6, 7 basis point difference was the long-term trend for many, many years.

CHAIRMAN GREENSPAN. Peter, what has been happening to the bid/asked spreads of both on-the-run and off-the-run forward Treasuries?

MR. FISHER. I don't have that on the tip of my tongue.

MR. KOHN. Peter, your staff provided me some information on that; let me see if I can remember it. The on-the-run bid/asked spreads are back to normal levels.  
[Laughter]

CHAIRMAN GREENSPAN. If you are trying to embarrass Peter, you are succeeding!

MR. FISHER. No embarrassment as long as my staff gets the credit!

MR. KOHN. The on-the-run spreads are back to typical levels in all sectors of the market--in bills and both short and long coupon issues. The off-the-run spreads have

come down a lot, but they are not back to where they were before the Russian crisis. They are close, but not quite there. They're still a little wider.

CHAIRMAN GREENSPAN. Any further questions for Peter?

VICE CHAIRMAN MCDONOUGH. I move approval of the domestic operations.

CHAIRMAN GREENSPAN. Thank you. Without objection. We will move now to Mike Prell and Karen Johnson.

MR. PRELL. Thank you, Mr. Chairman. For the benefit of those of you who didn't get your fill of basketball cliches over the last few days, I perhaps should characterize the U.S. economy as continuing to hit "nothin' but net"--rapid expansion and low inflation. In any event, as you know, GDP came in even higher in the fourth quarter than we anticipated at the last meeting, and we've now raised our sights on first-quarter growth the better part of a percentage point, to about 3½ percent. Meanwhile, recent readings on wages and prices have been even more benign than we expected. Under the circumstances, I guess I'm obliged to explain why we won't just get with the new era program and simply extrapolate the good news--rather than predicting, once again, that the economy will decelerate appreciably and that inflation will pick up. I'll be brief, just emphasizing a few key points in the Greenbook.

Our basic thesis is still that domestic demand growth will slow enough over the next several quarters to more than offset a lessening drag from the external sector. The two key elements in that story are by now familiar--indeed, in danger of becoming quite shopworn.

The first is that the stocks of consumer durables, houses, and business equipment are already growing so rapidly that, absent some deceleration, they'll get way out of whack with longer-term income and output trends. The second element is that if share prices continue rising at anything approaching the pace of the past several years, they'll get way out of whack with profit trends. Of course, there can be an interaction between the two elements--a virtuous cycle up to a point, but one that can carry too far on the basis of unrealistic expectations.

So, what are the most recent signals as to whether we are on the verge of some moderation? Frankly, on the face of it, there aren't many signs of slowing as far as household and business investment is concerned. Real expenditures for consumer durables appear to be headed for about a 12 percent annualized gain in the first quarter; residential investment appears

to be headed for about a 12 percent gain; and business equipment outlays appear to be headed for--you guessed it--about a 12 percent gain.

But, let me try to put a little spin on these numbers. In the case of business equipment spending, our guess for the first-quarter growth rate is off considerably from the 17 percent increase last year, and the recent orders data and other indicators suggest further moderation ahead. Meanwhile, for both consumer durables and residential investment, one can point to special factors that have boosted activity of late and that might reasonably be expected to prove transitory.

One of these is the intense competition among automakers sparked by GM's effort to regain market share. The companies are making enough money on light trucks that they probably can afford to continue this competition for some time, but it seems unlikely that they would escalate the pricing battle enough to push sales above the recent elevated pace--especially given their capacity constraints. More likely, with some demand having already been pulled forward by incentive programs, sales will fall this spring.

Another special factor is the mortgage-refinancing wave, which is now receding. Pinning down the effects of refinancings on spending hasn't proven an easy thing to do, but intuition, anecdote, and some statistical work suggest that demand has received an extra boost from refinancings stimulated by lower interest rates last fall.

Finally, the further run-up in housing starts in recent months likely has reflected the efforts of builders to satisfy the backlog of orders that built up with the surge in demand last year--efforts aided by a mild winter. Going forward, tight supplies of construction workers could make it difficult to achieve, from where we have been of late, the normal seasonal pickup in activity. But builders may not even want to try, given the recent hints of peaking demand for homes. Consequently, we are projecting a substantial negative swing in residential investment over the next couple of quarters.

Of course, other components of household demand conceivably could pick up the slack, if the fundamentals of income and wealth are still favorable. This is where the stock market comes in. With some trepidation, we stuck with our assessment that the bull market has pretty much run its course. We were encouraged in this regard by the nervousness that has been expressed by market analysts about high valuations and earnings prospects. Time will tell whether the enthusiasm of breaking the Dow 10,000 barrier will override those concerns. As the



simulations in the Greenbook indicate, though, it probably would take quite large further increases in share prices to totally undermine our forecast of demand deceleration. It could happen, but it is far from a certainty.

This brings me, in a way, to the supply side of the picture and the inflation outlook. The bull market might be said to need a continuation of low inflation--and thus no greater threat of substantial Fed tightening--and strong productivity growth to extend the recent uptick in profits. We've become more optimistic on both these scores, but not enough to transform the picture and lay out a really upbeat scenario.

Labor productivity increases in the fourth quarter and, on our estimate, in the first quarter have been impressive. Looking at how the various relationships in the economy fit together in light of those readings--and recognizing that we could be making a mole hill of a pebble--we've tacked on a tenth of a percent per year to our assessment of the average pace of structural improvement in productivity since 1995. In addition, considering what seems to be going on with respect to investment and the apparent unceasing drive for efficiency, we've extrapolated that small increment through 2000.

The cumulative effects of this slight change in trend productivity are great enough to offset most of the effect of our higher GDP path on the prospective level of the unemployment rate and also to ease somewhat the apparent squeeze on the markup of prices over trend unit labor costs. Consequently, we've been able to carry the recent good news on inflation through in the forecast. Owing to the backup in oil prices, however, the picture is still one of a noticeable rise in headline inflation over the coming months. By this summer, we'll probably be looking at year-on-year CPI increments in the 2s, once again.

It is, of course, arguable that the latest productivity numbers are a sign that we're entering a period of even better performance than we've anticipated. If so, that's clearly a good thing. But, if it means that the demand for capital goods is stronger, it could reinforce the assessment in our baseline forecast that interest rates probably will have to be raised at some point to maintain economic stability.

Karen will now offer an update on some of the key external influences in the outlook.

MS. JOHNSON. The basic picture from the external sector is very similar to that in the January Greenbook. We expect net exports to continue to be a drag on GDP growth, but to a diminishing extent going

forward. In the very near term, exports are a negative factor as some elements that boosted exports strongly in the fourth quarter of last year are unwound. That combined with the upward revision to U.S. activity and thus to import growth results in a more sizable drop in net exports for the first half of this year than we expected in January. Exports should rebound in the second half of this year and grow moderately next year, even after we take into account the somewhat stronger level of the dollar that we now see as likely.

Two developments in particular since January inspire some confidence in our positive view toward the prospects for exports. One is the move in Japan to significantly more aggressive monetary ease, coupled with signs that financial sector reform is proceeding. Although we continue to have activity weakening in Japan through the middle of next year, we now are looking for an upturn to begin during the second half of 2000. Financial market participants seem to have applauded the latest policy moves in Japan more than we would, and ample downside risks remain there. Nevertheless, there are reasons to see developments in Japan over the past two months as movements in a positive direction.

Recent developments in Brazil have also lent credence to the view that meltdown can be avoided in Brazil and, therefore, that the risk of contagion to its neighbors is limited. As a consequence, we have revised slightly upward our outlook for Mexico. The Brazilian real has retraced some of its decline in terms of the dollar, even in the face of a reduction in the overnight interest rate by the central bank of Brazil. Thus far, support among Brazil's bank creditors is holding up, and last week one Brazilian bank was able to return to the global market and raise voluntary funds with a one-year maturity. The reform program still faces many hurdles, and success is not assured, but events in the past several weeks have been encouraging.

There are still places in the world where new economic crises could erupt. We have seen one such case in Ecuador, but so far it seems contained, with no signs of further contagion. A potentially more serious case is China, where major domestic problems would no doubt have greater implications for its neighbors. We see real output growth slowing this year in China and have built into the forecast a gradual move in its exchange rate next year. A more severe deceleration, or a more abrupt change in the exchange rate, would threaten the signs of recovery now evident in the developing countries of Asia and could risk another round of financial and real macroeconomic turmoil in emerging markets. Finally, there is now the possibility of the events in Kosovo triggering some financial market reaction or undermining consumer or business confidence sufficiently to

affect economic activity, particularly in Europe. At the moment, any economic consequences seem very limited, but further escalation of the conflict could change that.

CHAIRMAN GREENSPAN. Questions for either?

MR. BROADDUS. I have a question for Karen. You are projecting a further deterioration in the trade balance currently and in the near-term future, but the projection for the dollar shows it fairly steady or actually increasing a bit. I know that last year we had a worsening trade deficit and the dollar actually appreciated, but there was a huge inflow of capital as a result of the flight-to-quality movements, which I would imagine we are not expecting this year. So, I am wondering how confident you are that the dollar will hold up, given this situation going forward.

MS. JOHNSON. The compromise forecast of a basically flat nominal dollar-- or an upward tilt in the real dollar, which is what matters in the forecast--comes about primarily because U.S. inflation is projected to be slightly higher than the very, very low inflation we expect to see in most other industrial countries. So in some sense, we are forecasting a generally flat nominal dollar as the offset of forces whose size we can't really project. Therefore, the notion that the dollar will likely be flat is somewhat of an agnostic forecast rather than one in which we have great confidence.

On the one hand, we see the European and Japanese economies as still quite weak. We expect monetary conditions in Europe to be eased at some point and we expect Japanese monetary conditions to remain very, very aggressively easy. The sense that the U.S. economy has experienced positive surprises that are not going to end abruptly vis-à-vis the monetary easing that we expect abroad might actually have led us to forecast an appreciation in the dollar. What stopped us from moving that far is our concern about the ongoing widening of the external balances. So we have put together those factors--one likely having positive effects and one likely having negative effects--and have tried to come up with a neutral compromise by positing a flat nominal dollar and a rising real dollar. In fact, we even have the euro coming back up some on the grounds that weakness in Europe is not so pronounced and that our external deficits will become a more important factor.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mike, I have a question about real wages. With the forecast that you have for the ECI and the core CPI, real wages are up about 1¼ percent in 1999 and about 1 percent in the year 2000. I know that represents a continuation of the pattern that seems to have existed at least since 1992 in terms of the Greenbook numbers. But it seems perplexing given the fact that you have productivity, one assumes, growing at an average rate of 1.9 percent and also very tight labor market conditions. In such a case one would normally expect the growth rate of real wages to be in excess of 2 percent. Do you have any ideas about what is happening and how realistic that forecast might be for the next two years?

MR. PRELL. Well, our forecast for real compensation in terms of the employment cost index is greater than 2 percent over 1999-2000 when measured against product prices--for example, nonfarm business prices. And I think that is the more appropriate metric to look at in this context. It is more consistent with thinking about the shares going to labor and to capital. It also makes more sense of what we saw in 1998 when we had not only a tight but a tightening labor market. So, that is what we have been focusing on and I think our forecast makes reasonable sense in that regard. There are still questions, too, about what the nominal wage might do and I think we tried to be quite clear--for example, in the Chart Show last time--about the uncertainties that surround that aspect of the forecast and the different models one can apply. But in terms of real wages, I think we have fairly sensible numbers.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. I want to ask something that doesn't really have an answer. But I'd like to get your views from the domestic and international side in trying to tie together some thoughts and observations about the U.S. economy and the rest of the world and which is more likely to change and why. Looking back on 1998, for the U.S. economy everything was, if anything, better than expected in terms of output, employment, inflation, and other measures we talk about. Looking at the rest of the world, economic performance was, if anything, worse than hoped for or expected. In our

efforts to understand the U.S. economy, we use words like technology, innovation, and various business efficiencies to try to explain its extraordinary performance. Then, in thinking about what is going on in the rest of the world, at least in the non-English-speaking world, it is tempting to think that technology, efficiencies, and so on do still recognize borders, which is probably not likely. So if it is not a uniquely American phenomenon or even a phenomenon of English-speaking countries, as some people might argue, what is likely to change? Also, on Al Broaddus's question about the exchange rate, I don't know to what extent we ought to be thinking that it is a pull phenomenon--where everything is wonderful here, which allows the capital inflow and a worsening of the current account deficit and yet we don't have a problem. Or how much of it is push? If everything is so bad every place else, when are they going to get their act together and figure out what we are doing right? That would help us understand at what point this large and growing current account deficit and external debt will become a problem for us. Will it be either when we stop doing things so perfectly or when the rest of the world starts doing things a lot better? Any comments or observations?

MS. JOHNSON. I have posed the essence of your question to a lot of people. The question I have pondered is: If technology, productivity, computers, internets, or whatever are the fundamental explanation for why the U.S. performance has been better--not just for 1998 but for about the past three years--why is it that we don't see it elsewhere? One might expect to see it especially, say, in Canada, where we see it a little but not a lot. We actually are looking into how much of it is apparent in Canada. When I ask this question of Europeans, I get answers that have a lot to do with the well-known structural problems that beset the European economy, but I also sometimes hear surprisingly optimistic accounts that at the micro level people are beginning to see a change. I have even had similar accounts about Japan from people who have been to that country recently and to whom I have posed this question.

My contacts say they have heard stories from people they talked to last week or last month that suggest that at individual firms and in selected industries this phenomenon is beginning to make its way into the economies of Europe and Japan. That

makes some sense in that we know from studies of past major innovations--the introduction of electricity to replace steam, for example--that the actual economic impact came long after the invention. It took a very long time for people to figure out how to do things differently and how to exploit the particular advantages of the new technology as opposed to just mimicking the old technology. Given the structural problems in Europe and the degree to which risk-taking and mobility are limited there, it is not implausible that it would take longer in Europe than it might take in the United States. I honestly don't know how much credence to put in the stories that, in fact, there is something bubbling under the surface and that a global technology event really will become visible. But it is at least a little reassuring that, in some micro-type anecdotes, there is an echo of what we see in the United States that suggests there is hope for Europe.

MR. PRELL. Let me touch briefly on another aspect of your question. There is a school of thought--John Makin comes to mind, for example--arguing recently that an improvement in the economies of Japan and some other Asian countries will have negative effects for the United States. The view is that demand abroad will reduce the supply of savings--which as you indicated has been flowing readily into the United States because we appear to be a safe haven or an area with fast improving technology--and that will exert general upward pressure on interest rates, which will be damaging. It is rather hard for me to get my arms around the thought that better economic performance in the rest of the world is a detriment to the United States. But I suppose when one thinks about 1998 and the shocks that we've had and the beneficial effects in our financial markets, the argument is that the accommodation that in a sense the Fed provided actually added to aggregate demand and pushed the unemployment rate perhaps below sustainable levels. There might be something to the view that we have to give that back at some point if we have overshot sustainable levels of resource utilization. That is another version of the worry about the reversal of the "supply shocks" that we have been experiencing and how we might have to cope with that.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Mike, in the introduction to your comments you implied that the forecast does not reflect in some way a belief in the “new economy.” But over the last three or four years I have seen your trend rate of productivity growth first go down to less than 1 percent--say, to about 0.7 to 0.9 percent--and then just about double to where it is now. Two questions: If you were a believer in the “new economy,” how high would that number be? [Laughter] And second, if in fact productivity growth had been a little more stable than that and what we are seeing is really more cyclical, how sensitive is the timing of the inflation increase in your forecast? Could inflation actually rise by ½ percentage point later this year?

MR. PRELL. I’m sorry, I’m not sure I caught the last part of your question. I was thinking about answering the first part and I lost the thread on the last part.

MS. MINEHAN. Sorry. The second part of the question is: If you were to take a trend productivity number that was slightly less than the one you have now--let’s say 1.7 percent--how sensitive is your inflation forecast in terms of the timing? You have inflation up by about ½ percentage point or something like that by the end of 2000. With a lower productivity number would that increase actually occur a lot sooner?

MR. PRELL. The latter question is extremely difficult to answer, as is the first one. There are questions of definitions here. What do we mean by “new economy” or “new era” and so on? I don’t think that’s easy to pin down. In many accounts it is something that rejects all the known rules of economic behavior, or what we thought were known rules. In other views, as I suggested in a briefing some time back, it may be that what we need isn’t necessarily a new paradigm but simply some new parameters. We know that productivity historically has not grown at the same rate in all eras. We know that the composition of the workforce and other factors can affect the natural rate of unemployment. So we are always in search of what the current values of those parameters are. As we have gained experience with how the economy is operating, what we have been trying to do is to put those numbers into better alignment with the facts. And that is what we have been doing over the past few years as we have seen better productivity performance than we thought could be reconciled with a continuation of the

weak trend we had seen in the post-1973 era. We could also see that investment was at a very high level, producing considerable capital deepening. That emboldened us to move apart from most of the pack and raise our estimates of productivity trend. And as we looked at the experience of the past year or so in our latest forecast round--and we looked at all the various behavioral relations in the economy--we once again thought that edging up that productivity trend estimate a bit further was warranted. If we were to go to the new era concept, I think we would probably start by saying that resource utilization levels have absolutely no influence on inflation. That seems to be one of the tenets. It is not clear what does determine the rate of inflation in this new paradigm, but the new era tenet certainly seems to be rejected by most people. And it is not part of our forecast; we haven't incorporated that. We basically just juggled the parameters of a fairly conventional model.

Now, if we had knocked a couple of tenths off the productivity trend, the effects would depend on where we started and whether we sensed that trend was perceived by people in the real world or not. I guess I'd have to say that the outlook for inflation, if we reached back a couple of years and changed this productivity trend, would deteriorate fairly rapidly relative to our baseline. To the extent that we give any weight to the markup over trend unit labor cost, which is a fairly conventional model of price determination--and I must say we don't give it the preponderance of weight--we would find that the markup was being squeezed considerably over the past few years with a 1.7 percent productivity trend. And that would have negative implications going forward, especially in the tight markets that we have; firms would be trying to restore their markups, and the price pressures would show up fairly promptly. We're talking tenths in terms of the differences but, given that we already have an upward tilt, it would perhaps make a material difference in our perception of the upturn in inflation.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. I have a labor market question. We know that the labor market in the aggregate has done very, very well. We expected solid performance and it has come in better than expected. The participation rate has gone to postwar highs, I believe.



At the same time, we know that manufacturing employment has been on the weak side; that is related in good part to the problems in Asia. My question is this: Do we know anything about the laid-off workers in manufacturing or perhaps even something about physical capacity in manufacturing? Have these workers been absorbed permanently or on some sort of long-run basis elsewhere in the economy? Or are a lot of people sitting around unemployed so that the aggregate numbers reflect other people who have come into the labor force? What will happen when demand for manufacturing, because of eventual Asian recovery, comes back? Will these resources come back into manufacturing in the United States? Or do we have steel capacity that is permanently shut down and workers that have been dispersed to other industries? Do you have any feel for that?

MR. PRELL. Not as much as we'd like. We've actually been thinking about examining the data on some aspects of that. One assertion that has been made is that wages are being held down because manufacturing has been weak and thus manufacturing wages haven't been rising, and that might be a sort of pattern-setting element in the picture. We don't find any systematic relationship over time in that regard. It is an interesting hypothesis but not one for which we have been able to find confirmation in the data.

It is possible to look at the movements of workers. One question I raised was whether this trend in manufacturing employment could be providing some relief in the construction industry. People who could not get jobs on assembly lines or had lost jobs on assembly lines might be filling the gap there.

MR. POOLE. Similar skills are involved.

MR. PRELL. Well, they are not always similar; the skilled construction worker has special skills that someone who has worked at a steel plant doesn't necessarily have. But in terms of the opportunities available, a relatively low skilled construction job might be attractive as opposed to working at McDonalds. At this point we have looked at this hypothesis in only a limited way and we haven't found much confirmation of it--statistical or anecdotal.

I'm really not sure precisely what has happened on unemployment in manufacturing; I don't have the data in front of me. Those are shaky numbers because the survey asks what a person's last job was, and a laid-off manufacturing worker could have been employed elsewhere after he lost his manufacturing job. Those data would be one place to look, and perhaps I should, to see if there is evidence that idled manufacturing workers are still lingering out there among the unemployed. My suspicion is that the decline in manufacturing employment hasn't been going on long enough that these people have totally abandoned their hopes of getting another manufacturing job. Unfortunately, in our forecast manufacturing does not grow rapidly enough to generate any increases in employment. While trade is improving, we really are going to be generating little, if any, additional employment in manufacturing over the forecast period.

CHAIRMAN GREENSPAN. Any further questions for our colleagues? If not, who would like to start the Committee discussion? President McTeer.

MR. MCTEER. The economy in the Eleventh District appears to be maintaining its overall health and positive growth trend. Recent revisions to Texas employment data suggest that Texas employment grew 2½ percent at an annual rate in the fourth quarter of last year, which is a bit higher than indicated in the original numbers. The data also show that employment was growing at a rate of around 3½ percent during the first two months of this year. Signs of stabilization in some Asian economies and a rebounding of prospects in Mexico have turned around the export picture for the Texas economy, boosting the electronics industry in particular. Total exports from Texas grew modestly in the fourth quarter after falling for the first three quarters of 1998. The electronics industry in Texas experienced employment gains in January and February after eight consecutive months of decline. Due to growing Asian demand and above average computer replacement demands stemming from Y2K, we have seen a marked increase in chip sales. This has been accompanied by increases in DRAM prices of over 20 percent as inventories have declined.

Oil prices have increased about 20 percent over the last couple of weeks, following the OPEC agreement to cut output; the permanency of this increase is

debatable, but it may slow some of the hemorrhaging in the Eleventh District energy industry. Our directors still believe that the problems in the oil and gas industry are structural in nature and that the trend in oil prices is more likely down than up. They also believe that OPEC is no more likely to hold down output this time than it did the last several times.

Characteristic of the pessimism in the energy industry was a remark made by one of the members of our Small Business and Agricultural Advisory Committee last week. He said that he was just as likely to see a working oil rig in the Texas panhandle as he was to see a dinosaur crossing the road. [Laughter] I also learned in that meeting that for a lot of the operators of small oil wells, the price they actually get at the wellhead is significantly below the benchmark of West Texas Intermediate.

Construction activity remains strong, but signs are beginning to emerge that activity is at or near a peak. Contract values have already edged down. In Dallas, builders completed 6,000 more apartments than they leased in 1998. In Houston, the supply of apartments expected to be brought on stream this year is generally thought to be excessive unless the energy industry turns around. A year ago I was reporting commercial and office rent increases of 20 to 30 percent but, as expected, market signals worked and now the completions of new office space have begun to outpace new leasing activities. Office rent concessions of up to 4 months have already been reported in Dallas and Houston early this year. The abundance of real estate capacity should reduce inflationary pressures in that sector. Low capacity utilization levels in manufacturing promise to do the same.

As for agriculture, the outlook for a continuation of weak commodity prices is decimating our rural communities as depopulation accelerates. And while labor markets remain tight in most of our large urban areas, wage increases have been in line with national productivity trends. That allows me to be comfortable with the Greenbook forecast, which does not see wage acceleration as a source of inflationary pressures.

At the national level, a long period has elapsed since our last meeting, so we have had two complete rounds of statistical reports and they show mostly more of the

same. Output and employment growth remain strong and unemployment continues favorable. Contemporary measures of inflation remain flat. The CPI rose 0.1 percent in both January and February; inflation in the pipeline and leading indicators of inflation continue to be favorable; and most commodity price indexes are down further. The dollar is somewhat stronger. Capacity utilization remains low in the United States and is even lower globally. Oil prices are the exception, although in my part of the country it is dangerous to complain about the rebound in oil prices. In any case, money growth has slowed, which is good news everywhere.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. Thank you, Mr. Chairman. Economic activity continues unabated in New England. Labor markets continue to be tight, with the unemployment rate for the region more than a percentage point below that of the nation. Employment growth continues above trend for the region, but it is still below that for the nation. Research done at the Bank attributes this lower level of job growth to a lack of labor supply. This is confirmed by anecdotal reports in which almost every type of worker is said to be hard to find. However, except for high-tech workers, wage increases are in the 3 to 6 percent range, depending on the industry. In addition, growth in the Boston area's CPI seems to have moderated. It had been rising faster than the nation as a whole but it now appears to be matching the national experience.

Staff at the Bank spent some time since the last FOMC meeting talking with temporary help firms in New England in an effort to understand their perspectives on local and national labor markets. The five firms contacted reported strong demand and difficult supply conditions; that is, their clients were requesting additional employees and workers were very hard to come by. Nonetheless, firms reported increases both in workers on assignment and revenues, with wages rising steadily. Three of the five firms noted that they are unable to increase client charges as much as wages, so profits are being squeezed. The tone of these conversations was much more upbeat than when the last contacts were made in November. Several of the firms contacted act both as recruiters for permanent staff and as suppliers of temporary help. They report that the

mix of assignments is shifting toward permanent positions. Early in the recovery, temporary help seemed cheaper and labor was more plentiful. Now it has become more difficult and expensive to find temporary workers and to deal with the inevitable issues of high turnover and training costs.

Real estate markets remain strong. Residential construction surged in December and likely in January as well because of good weather. Existing home sales dipped a bit and price increases moderated, at least as reflected in regional data. Anecdotally, however, house prices are said to be rising rapidly in the Boston metro area. And we could use a few of the apartments that they are building in Dallas! Commercial real estate supplies have expanded a bit with the addition of some new space, and vacancy rates in Boston have leveled out, albeit at very low numbers. As I have noted before, there is not a lot of speculative building going on; credit market conditions over the past year have not made financing speculative new projects very easy. Thus, the business of commercial real estate remains “very sweet” in the words of one contact, with strong demand and high rents.

One item of local interest relates to the continuing decline in manufacturing jobs in the region. Manufacturing jobs appeared to be on the rise marginally in early 1998 but now are declining faster than for the nation as a whole. This captures the attention of local people who, despite very low unemployment rates, see this as a negative trend. Growth in construction jobs, albeit from a low base, and in retail trade and services has more than absorbed the decline in manufacturing jobs. However, many do not see service jobs in particular as the equivalent of those in manufacturing. This is a topic that has engaged local labor leaders and politicians, especially considering that tax breaks granted over the past two to three years were directed at manufacturing firms and were given in the expectation of keeping jobs in the states of the region. Credit market conditions continue to be regarded as favorable, with spreads wider than a year ago but funding readily available. Local lending growth has declined since last fall, in line with national trends. I spent some time recently with two partners of local venture capital firms, one specializing in high-tech start-ups and the other in larger firms in the

entertainment and media areas. They both noted that deals were being made at extremely rich prices and that new entrants into their businesses were winning deals based on offers that to these two contacts seemed nonsensical. In the words of one, "This is a time for selling, not buying." A former Bank director and partner in another very large venture capital firm corroborated these accounts and noted that his firm is completely out of the market for the time being, as they were in the late 1980s. Several people in the investment community with whom I meet regularly echoed this cautionary tone. They all view economic conditions and financial markets as frothy, bordering on excessive. Their sense was one of times being too good and a concern about what will happen when the party stops. Certainly, the fact that we were meeting as the bombing in Kosovo was intensifying did not help this sense of foreboding.

On the national scene, our forecast is not terribly different from the Greenbook's on the growth side. However, we see a bit more stable trend rate of productivity growth and thus a decline in the unemployment rate to a little less than 4 percent--3.9 percent in 1999 Q4. We also see inflation rising earlier than does the Greenbook, though, as I've said before, we have to be humble about any projection on that front.

I am puzzled by the moderation in wage inflation in the last couple of months and confounded by the strength I see everywhere except in pricing power. Downside risks on the international side seem to have moderated considerably and we, like the Greenbook, have a slightly higher external growth forecast than we did in January. However, we do continue to see a drag on growth of about ½ percentage point or maybe a little greater than that from the external deficit in 1999 as a whole.

On the other hand, considerable risk remains that growth will exceed current estimates for the first half of this year, driven by consumer spending on houses, cars, and other durable goods. The stock market remains exuberant, to say the least; credit is plentiful; and the boom in interest-sensitive sectors suggests that the cost of capital is too low. It is true that inflation is also quite low, and therein lies the issue. The exuberance of the economy may well come back to haunt us, even if inflation does not take off in the

near term. To paraphrase William McChesney Martin: The party seems to be in progress and the question now is, "When can the punch bowl justifiably be taken away?"

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, the economy in our District continues to perform quite solidly. Employment growth in February was a bit flat, but we think that may have reflected an absence of supply of workers as much as anything. Retail sales and construction are both very strong in our metropolitan areas, and our surveys show a very high level of consumer confidence. Manufacturing activity, as in other areas, has cooled off a little, and the number of manufacturing jobs in the District fell a bit in February and is actually below year-ago levels. That's the first time we've seen that since 1992. Energy activity declined in January and, of course, people on the producing side have hopes--from their vantage point--for the oil price increases that they see stemming from the OPEC discussions. The District labor markets remain very tight, even with the weakness I talked about in manufacturing, and we have seen in our surveys a slight uptick in wage pressures. District labor markets now have an unemployment rate of about 3.3 percent, and that actually may understate the real decline slightly because we have a very high participation rate, well above the national average.

The other area of some weakness, obviously, is the agricultural sector. That sector continues to struggle with good supplies and a falloff in demand, especially from Asia. And we are hearing more and more discussion about whether a farm aid package will be needed again in 1999 as in 1998. As for how that will go, we'll have to wait and see. Even with the continuing troubles in agriculture, economic growth in our region is strong, driven by the strength in the metropolitan areas and even in some of the rural areas.

On the national level, our forecast is fundamentally very similar to the Greenbook's. The difficulty is that we have as much confidence in our forecast as Mike Prell does in the Greenbook's. In any case, the projected strength in the economy leaves us a bit uneasy. I want to raise again, though it may be a little early in the meeting, the issue of where we were last summer and the actions we have taken since then as an

insurance policy. I think those easing actions were wise. But as I look back over the three years ending in 1998, we have had for much of that period a funds rate of about 5½ percent, steady growth, and declining inflation. And I can't help but continue to wonder if we should not be unwinding some of our easing if the circumstances warrant. With that I will stop. Thank you.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Thank you, Mr. Chairman. I am beginning to sound like a broken record, but the story for the Seventh District economy is quite similar to what I reported in the last two meetings. Reports continue to suggest strength in consumer spending and housing activity, mixed signals in manufacturing, and tight labor markets, but few signs that inflation will accelerate in the near future. Housing remains robust, although there are signs that activity may have peaked. Strong housing markets continue to support consumer spending for home-related items, and most retailers reported higher-than-expected sales, with discounters still faring better than general merchandisers. Light vehicle sales were exceptionally strong in February, and industry contacts indicated that sales so far in March were still running above 15½ million units. Earlier this month, the automakers again revised up their sales forecast for this year. Manufacturing activity continues to be mixed, but the sector overall may be showing some early signs of improving. And that may be a little different from some of the other reports we have heard this morning. The Chicago Purchasing Managers' survey results for March, to be released tomorrow morning, will show activity moving higher, from 52.9 percent in February to 57 percent in March. Perhaps of some concern, however, is that the "prices paid" component moved above 50 percent for the first time since last April, from 41.6 percent in February to 52.5 percent in March. That information, of course, should be treated confidentially until it is released tomorrow morning.

The strength in the motor vehicle and construction industries is offsetting softness in steel and agricultural equipment. Heavy-duty trucks appear headed for a record year. Demand for construction equipment and materials remains very strong. Construction equipment producers expect to benefit significantly from the 6-year



highway funding program, and one gypsum wallboard firm operated at 101 percent of capacity last year by working holidays. There have been reports of wallboard being imported, which is a very rare event in our country. Price increases for wallboard have been announced and 25 percent additional capacity will be coming on stream over the next two years.

Steel imports have come down sharply since November and there are signs that activity in the District steel industry may be bottoming. In addition, reports indicate that steel output between now and the end of July may be boosted by efforts to build inventories to meet auto industry demand ahead of a possible strike by steelworkers. Their contract expires this summer. However, one of our directors who heads a major steel firm believes that a steelworkers' strike is unlikely. And, of course, we have automobile labor negotiations later this year as well. Farm equipment makers still expect sales and production to be down sharply this year.

Comments made at our Agriculture, Small Business, and Labor Advisory Council meetings a couple of weeks ago echoed reports we have heard from other contacts: That conditions in parts of the agricultural sector are bleak and that employers are learning to cope with tight labor markets. Also complementing the council member reports, a contact at a large temporary help firm said that wages were not going up more rapidly than before. Relevant to Bill Poole's question earlier about manufacturing workers, this contact also said that there has been some modest pickup in the demand for blue-collar industrial workers early this year. That has been true for several months now after eleven consecutive months of declines. He also saw some softening in demand for high-tech employees on a national basis.

Turning to the national economy, the data since our last meeting have been surprisingly strong. Given the momentum that we've seen so far this quarter and the calmer financial conditions, we have upped our forecast for this year's real GDP growth from 2.6 percent to around 3 percent, which is in the same ballpark as the Greenbook forecast. Of course, the inflation numbers also have continued to come in quite favorably, suggesting that such high levels of economic activity are not currently

straining productive capabilities. Given the very heartening productivity growth we've seen lately, the relatively good inflation performance may well continue. Indeed, we have even lowered our core CPI forecast a bit for 1999. However, the prospect of some upturn in inflation in 2000 from the low rates we've been experiencing remains worrisome. I recognize the difficulty we all have had in forecasting inflation, but all of our statistical models that forecast low inflation for 1999 expect core CPI inflation to accelerate noticeably next year. As economic growth around the world picks up over the forecast horizon, many of the special factors restraining inflation will dissipate. Given what I still believe are substantial lags in the transmission of monetary policy, we need to keep in mind the likelihood of accelerating inflation in formulating policy over the coming months.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, the pace of economic activity in the Twelfth District has been solid in recent months and only a little slower than last year's rapid pace. In the State of Washington, the overall job count recently increased at about a 1½ percent annual rate despite the beginning of large cutbacks in the aerospace sector. Arizona also has been able to shrug off cutbacks by major manufacturers. Despite job losses in the Phoenix area, the local unemployment rate is still below 3 percent. In California the economy also is strong outside of manufacturing. A pickup in state population is boosting activity in retail trade and the housing-related sectors such as construction and real estate. And state tax authorities report strong receipts from sales taxes and personal income withholding in early 1999. Initial claims for unemployment insurance have remained low in California. With a relatively low rate of layoffs and continued strength in hiring, the state unemployment rate drifted down further in the last few months. Tightness in the labor and housing markets is particularly evident in the San Francisco Bay area, where the unemployment rate has remained below 3½ percent and housing prices have jumped 15 percent in the past year.

Turning to the national economy, developments since our last meeting have not caused us to change the tenor of our outlook for this year. We continue to think that

the most likely outcome is a slowdown in real GDP growth to around 2¾ to 3 percent, with inflation in the GDP price index of 1 to 1½ percent. The slowdown of the economy in our forecast results in part from the waning effects of past increases in stock market wealth. I felt more confident about that assumption when we ran the model than I did when I was putting this report together last evening after yesterday's stock market rise!

While this appears to be a reasonable forecast, there are large uncertainties. The economy has defied expectations of a slowdown for several years, and I am more convinced that we are seeing the effects of a favorable supply shock, perhaps related to technological developments, that is not being picked up by standard models. I believe that recent data have reinforced this view. I am referring to the evidence for the fourth quarter of even more rapid real GDP and productivity growth and very low inflation, as well as indications for the current quarter of very low CPI inflation in combination with moderately strong growth. I would not be at all surprised if this year's growth once again exceeded our forecast.

On the other hand, we can't ignore other possible developments that could undermine economic activity this year. For example, growth could be seriously reduced if some shock were to undermine the U.S. equity market. However, neither of these uncertainties, from a positive supply shock or a negative financial shock, would seem to pose a great threat to inflation in 1999. Prospects for inflation next year, however, are more uncertain and, I believe, more troubling. Thank you.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Thank you, Mr. Chairman. For the past couple of meetings, I have reported that the Atlanta District economy has been on a slightly lower expansion path than the economy as a whole. However, now it looks as if the District economy has once again edged ahead of the nation and is expanding at a robust rate. While reports for retail sales have been mixed, showing mainly better sales for discounters relative to traditional department stores, manufacturing according to our Southeast manufacturing survey improved in February. Notable gains were reported in current production, employment, the factory workweek, and also in the outlook indicators. With regard to

the latter, capital investment for six months out surged in February. Tourism and travel remain healthy, with substantial additions to hotel and cruise ship capacity planned. Construction prospers despite shortages in wallboard.

The main negatives in our region are trade, agriculture, and energy; none of those negatives is surprising or new. The trade gap at our District ports over the last year rose from \$5 billion to \$12 billion, almost six times the rate of deterioration nationally, as exports through those ports declined and imports increased.

Latin America is in our backyard and has special implications for our region. Because of that I would like to offer a few brief observations about Brazil, which has been given so much play recently. Our people spend a lot of time in that region and I had the benefit of paying a personal visit to Brazil since the last FOMC meeting. I talked with a number of domestic and foreign bankers and business leaders about what is going on in the Brazilian economy.

It is the case that Brazil has made some progress on both the financial and the fiscal fronts. But I must say I came away with three broad impressions that caused me some worry. First, I sensed that the depth of Brazil's fiscal problems and the political difficulties the country faces in addressing them are more serious, longer term in nature, and more difficult than one may appreciate from reading the popular press. Second, I did not detect the broad-based sense of urgency to address those problems that might have been expected. Interestingly, a number of Brazilian businessmen and bankers told me that they knew how to continue to operate profitably should Brazil return to an inflationary environment, and thus they could muddle through. Finally, I found that several large U.S. companies headquartered in my region are more than a little uneasy about their investments in Brazil. They are uneasy because of the renegeing on some concessions, including tax forgiveness, that were made by Brazilian authorities at the time those investment decisions were made. That kind of environment does not encourage additional investment. I would guess that we have not seen the end of troublesome developments in Brazil.

The decline in domestic energy production that I have reported on previously continues. As Bob McTeer indicated, rig counts are down; Louisiana's seasonally adjusted rig count is down to 138, the lowest level since June of 1995. To emphasize the ripple effects of this decline in energy production domestically, the largest oil drilling service company notes that their benchmark supply boat, which last year rented for \$10,000 a day, is now going for \$2,500 per day. Labor markets continue to be tight; and while there are scattered indications of wage and benefit increases, there are few new signs of overall price pressures.

I might mention a conversation I had last week with one of the largest, if not the largest, commercial builders in the Southeast who is doing work for us. He reported that the fees they are now able to charge as a percent of the project cost have gone from 2½ to 3 percent to 3½ to 4 percent; that's a 25 percent increase in the fees they can charge. In addition, he says they can now extract additional fees for doing up-front consulting work during the design phase. This may be a regional phenomenon, but given the fact that his company does work across many markets in the Southeast, I find it interesting that he has been able to get those kinds of margins. Two other smaller commercial builders on our board of directors reported that they have quit bidding on jobs and will only entertain work on a negotiated basis. So, the commercial construction sector, at least in our region, is very strong.

At the national level, I continue to see some downside risks stemming from international developments, as does everyone else, despite the recent period of relative quiet and more settled conditions. Brazil, China, Japan, Russia, and other nations we can name are candidates for new, negative developments. At the same time, and deserving much greater weight in my view, we have a domestic economy that continues to surprise us with its strength and staying power and apparent resistance to inflation. It appears that our economy very likely is operating beyond sustainable levels at the moment. We have to continue to watch for the strains and bottlenecks that may be associated with that.

Despite the absence of a smoking gun in the data, it is the case that our near-term inflation outlook shows some pickup. This is due to relative price changes as

energy and commodity prices return to more normal levels. More troublesome for me, however, are the longer-run inflation paths in the Greenbook simulations and our own Bank's modeling work. The simulations, as well as the charts on inflation-targeting rules contained in the most recent financial indicators package supplied in connection with this meeting, all imply that a significant increase in the fed funds rate would be required to keep inflation even close to its current path. The implication also is that the longer we wait, the higher interest rates will have to be to accomplish this task.

It is hard to know whether we should take back right now at least a portion of the rate decreases we delivered last fall or whether we should wait a while longer. But it is my guess that Y2K concerns may make consideration of a policy shift more difficult as we move into the latter part of the year, unless the case is compelling or we face some very unexpected developments. For me, that is another reason to be ready to move sooner rather than later. I find myself leaning at this point toward at least a tilt toward tighter policy. And I would like for us to talk at least about the possibility of using our newly initiated change on disclosure of the tilt in the directive in order to lay the groundwork for future policy moves. This would give us more flexibility to make a policy move before late in the year without either surprising market participants or committing ourselves to a policy change if it proves not to be needed. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Thank you, Mr. Chairman. Conditions in our District for the most part mirror the robust national economic situation. Consumer spending remains very strong. Indeed, our latest service sector survey suggests that retail sales are now rising more rapidly than they have at any time in the last year. Residential construction and housing sales are extremely robust pretty much across our District. Commercial real estate activity is less uniformly strong, but it is very strong in certain markets, including the one right here. There is very little available office space in the District of Columbia and rents are rising.

Labor markets remain very tight. In answer to Bill Poole's question, textile companies are the main source of layoffs in our District, and they are laying off a lot of people. The service sector and construction companies are going after these displaced employees and are hiring them. Of course, the textile job losses are permanent, so what is going to happen in the long run is an open question. But the losses may be having some moderating effect on wages elsewhere in our economy. In any case, wages generally in our District still seem to be rising quite moderately, although we hear from some of our contacts now that wage offers are a little richer than they were a few months ago. Still, on the whole, final prices in our region show little upward movement.

At the national level, the beat goes on. The incoming first-quarter data, as everybody knows, suggest continuing considerable upside risk in the near-term outlook. When one thinks about it, as we have gone through the first quarter, the changing prospects for the quarter, as they evolved, really have been extraordinary. At the time of the last FOMC meeting, the Greenbook--along with just about everybody else--was forecasting about 2 percent growth in domestic final demand for the quarter. In the current Greenbook, that projection has been raised to close to 7 percent.

I believe it is important that we understand as clearly as we can the reasons for this extraordinary strength in spending and its implications. It seems to me that two main factors are involved. The first is the apparent increase in trend productivity growth. The resulting greater return on investment is keeping business investment spending at an advanced level, and the current and expected higher real wages are helping to keep household spending high. A rise in productivity growth, I might just note parenthetically, normally implies an increase in real interest rates. So that is one factor. The second factor, I think, is the high credibility of our low inflation strategy. That supports the increases in real income and allows labor markets to operate at much lower unemployment levels without generating the potentially inflationary wage increases that have been typical historically. As I see it, maintaining this credibility is the key to what we can do to help sustain the expansion. In order to do that, I think we need to be sure

we interpret the risks in the outlook as accurately as we can. I would like to make a particular comment about this.

In the second half of 1997 and last year, there was a lot of concern, understandably, that the East Asian crisis would have a significant negative effect on the U.S. economy. There certainly were some negative effects. But there also were very powerful offsetting effects in the form of a big capital inflow that helped hold U.S. interest rates down and in that way helped hold domestic demand up. At the end of the day, as I see it, the Asian crisis really didn't have a terribly marked negative effect on the U.S. economy. And I think these offsetting factors played at least as significant a role in this as our easing of policy last fall.

In my view it is desirable, and I think important, to avoid a similar possible premature conclusion going forward. In that regard, as I mentioned earlier, the Greenbook is projecting a significant further deterioration in net exports this year, which is portrayed not only here but by a lot of other forecasters as a significant drag on U.S. growth. In the Greenbook, this deterioration is projected to be accompanied by a modestly stronger dollar which, of course, would help keep inflation in check. I can think of an alternative scenario, which is probably closer to John Makin's point of view, where the trade deficit indeed widens, but in the absence of any tightening of U.S. policy or some fortuitous capital inflow into the United States as we experienced last year, the dollar declines. I think there is ample historical precedent for such a scenario. With the dollar depreciating, foreign central banks might well feel they have more room to ease policy. But with the outlook for much of the rest of the world improving and the U.S. economy already operating well above potential GDP, a worldwide easing of policy could cause commodity prices to snap back. And that, along with the decline in the dollar, could well turn inflation expectations back up in this country. We could then find ourselves in a situation where we are forced to tighten sharply to contain inflation, with all that might imply for the expansion going forward. Now, we may see this coming in plenty of time to act in a measured way to prevent it, but I wouldn't count on it. I hope



that we will consider later in the meeting some near-term preventive action that will reduce the risk that something like this scenario will unfold.

CHAIRMAN GREENSPAN. Vice Chair.

VICE CHAIRMAN MCDONOUGH. Mr. Chairman, the Second District's economy showed more signs of brisk growth in the first quarter, with little increase in overall price pressures. In fact, the 12-month CPI increase in New York City at the end of February was 1.4 percent, so it was even lower than the national average. Unemployment in New York and New Jersey fell to a cyclical low of 4.9 percent in February, while private sector employment grew at a 2.4 percent annual rate.

Anecdotally, to go back to the discussion earlier about where manufacturing workers go, we have a rather interesting microcosm in the area between Albany and Buffalo--or probably an even smaller area between Syracuse and Buffalo--where manufacturing jobs continue to be lost. The people find other jobs rather quickly or they migrate. The unemployment rate in that area is quite low, in the 3 to 4 percent range. We have phenomena like firms from Cleveland, Ohio holding a job auction in Buffalo, an indication of the benefit to our society of its ability to be flexible.

I would like to talk first about the international side and then go back to the domestic side. I continue to be concerned about the possible negative effects, even greater than those reflected in the Greenbook, on our economy from events abroad. Let me start with Japan, which we all know is in a serious recession. I am not at all optimistic that their recapitalization of the banking sector, although a good thing in and of itself, is going to have any positive effect on the economy in terms of ending the credit crunch. This seems to be a time of year when we have virtually nonstop visits by CEOs of Japanese banks. And I have yet to find one who is planning to have his newly recapitalized bank become more aggressive in lending. Their posture is very much a defensive one. They have no additional ability to actually get rid of the underlying assets, which I think is essential to end the credit crunch in time. But probably more importantly, the Japanese visitors I've met with, from both the official and the private sectors, are talking more and more about their country being in the greatest cultural crisis

in their history--even greater than that of the period of the Meiji restoration or the period after the Second World War. What they are seeing is a breakdown in the traditional ability to make decisions and to arrive at policy. It is not likely in that kind of environment that the economy will pull itself out of its recession faster than we think. In fact, it seems to me more likely that the economy will continue to weaken simply because of an ever deteriorating level of confidence, both at the consumer and at the business levels.

The recovery in the rest of Asia is spotty. One can see it in Thailand and Korea, especially in Korea. In Thailand one can see some recovery by looking pretty hard, but it certainly is slow. In China, I think a leading indicator of what is going on is the

The reason for that, I believe, is that the government is getting more and more concerned that the Achilles heel of their restructuring--that is, the level of unemployment as they restructure the state-owned enterprises--could be reaching the point of getting out of hand. They are doing some in order to try to keep the lid on, but that is a very finely balanced approach. It always has been. I view that indicator as rather worrisome.

In Europe, economic growth is slow. There is very little going on at the governmental level, except in the United Kingdom, to bring about the structural reforms that are required. Even though one does see bits of light at certain well managed companies in continental Europe, those economies are still a long way from the kind of structural reform needed. I agree with earlier speakers that the Brazilian situation is better but also risky. It is a confidence-building effort in which the Brazilians may have overcompensated by making the program appear to be too successful too soon. As a technical matter, their lowering of interest rates by 3 percentage points probably made sense. But it does have the significant risk of making everybody think that things are wonderful again. The Brazilians are wont to believe that. If there is a slowdown this summer, we could see a reversal in confidence that would be quite damaging.

The conclusion I draw from all that is this: Although one need not be unnecessarily pessimistic about what is going on in the rest of the world, it is very

difficult to be optimistic about it or to think that there will be a positive effect on the United States that we don't anticipate. Rather, it seems to me that the risks are on the downside.

As for our domestic economy, it seems to be behaving exactly in the way that the Federal Reserve should wish it to behave. We have sustained economic growth and we have price stability, which to the best of my knowledge is what the Congress of the United States has told us is our mission. Our Bank believes that we will continue to have a healthily growing economy. And though our models forecast some increased inflation in 2000, our models have been consistently wrong in forecasting inflation, as have everybody else's models around this table. Therefore, I think we should be somewhat modest about basing any policy change on that forecast. It seems to me that the present stance of policy is extremely well balanced. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. Thank you, Mr. Chairman. Economic activity in the Philadelphia District remains strong and shows few signs of slowing. Labor markets continue to be tight, but competition remains fierce and there appear to be few inflationary pressures. The outlook is also positive whether one talks to manufacturers, retailers, auto dealers, homebuilders, or commercial real estate people. That said, however, one does not get the feeling that we are crossing over from strong growth to boom conditions. There is an absence of inflationary pressures in the pipeline. Businesses are still operating on the basis that prices will not rise. There is, to be sure, some upward pressure on wages, but productivity gains and cost-cutting are acting as effective offsets. And even in real estate, one does not get the sense of the kind of boom conditions that prevailed ten years ago, even in areas that are prone to such conditions.

I think much the same can be said about the national economy. We see strong growth, few signs of a buildup of inflationary pressures, and the absence of boom conditions. As for the risks, the upside risk to the domestic economy is still there, as it has been; and the downside risk from abroad is also still there, as it has been. The risk of financial contagion, while still there, appears to have subsided--a little anyway.

While a case can be made for tinkering with the federal funds rate to cancel, in effect, some of the insurance we took out last fall, I am much more persuaded that we should leave well enough alone for now and continue to see what unfolds in this truly remarkable economy. And it is remarkable in the sense that it is about everything one could wish for.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Thank you, Mr. Chairman. With regard to the District economy, overall conditions remain quite favorable and, if anything, activity has picked up a bit. Retail sales have been strong in recent months, manufacturing activity for the most part has been positive, construction activity has certainly been healthy, and labor markets of course have remained tight. In the interest of balance, I should note that agricultural and other natural resource industries are continuing to struggle. Home sales in the Twin Cities metropolitan area have slowed a bit, although realtors tell us that it is due to a lack of supply rather than a lack of demand. And bankers are expressing a little concern about the credit quality of their commercial loan portfolios--or rather the other guy's commercial loan portfolio. [Laughter]

As far as the national economy is concerned, I find myself in agreement with the general pattern of the Greenbook forecast. By that I mean that the current quarter is turning out very well once again and that the moderation in real growth going forward, certainly relative to last year and maybe to the last three years, is something with which I agree--without getting into details about the precise magnitudes. I also would expect, as does the Greenbook, some modest acceleration of inflation.

Having said that, my feeling is that the risks to the forecast, if anything, have diminished recently. Or maybe I was simply too pessimistic earlier. On the upside, of course, the concern is not the rate of real growth but the rate of inflation that might accompany it. And certainly in recent years I have been reducing my inflation forecast with some frequency. My sense is that many of the rest of us have been doing the same thing, or have been reducing the level of the federal funds rate that goes with any inflation forecast, or both.

On the downside, I have been impressed at the lack of repercussions from events in Brazil on the rest of Latin America and elsewhere in the world. My feeling, for what it's worth, is that we are in a better situation than I anticipated and that the risks going forward have diminished, if anything.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. As I was preparing for today's meeting, I was thinking about what has changed in the economy that might require a change in the stance of monetary policy. I came to the conclusion--similar to what others have expressed--that a great deal has happened but in some ways very little has changed.

With respect to what has happened, the economy to date obviously gives little evidence of a domestic demand-driven slowdown. Personal consumption and business investment spending are both quite robust. I suppose this should not be surprising given the strength in employment and the relative ease of access to credit for both consumers and businesses. Secondly, as Gary Stern commented, the international economic outlook, though far from settled, seems a lot better than it has been at almost any time in the last eighteen months or so. Developing Asia is healing. I was interested to note just yesterday that short-term interest rates in Korea and Thailand are both lower than they were at the start of the crisis, while their currencies have not in any sense gone down. In fact, they have stabilized and gone up some.

Moreover, contagion from Brazil continues to be quite mild with respect to most countries, Argentina being a major exception. And Europe, while softening, clearly has some room for further monetary response. I suspect and would not be surprised to see that occur. Japan obviously is a question mark. It is facing a daunting set of very unattractive policy alternatives, but it does at this stage seem to be bouncing along a relatively shallow bottom and probably will continue to do so for the foreseeable future. I will not deny that there are some risks there, but exactly how things are going to turn out is not yet clear. The third thing that has happened since we last met is that inflation seems to be doing something of a disappearing act. It is a bit like that cat in the musical

“Cats” who, when the case is solved, is not there. Inflation seems to have disappeared, at least currently and as far as one can see in the pipeline.

One thing that has not changed very much is the contour of the Greenbook forecast. But I suspect, as with other forecasts, that we will take that with a grain of salt. Therefore, given the constellation of incoming data and the uncertainty we all have at this stage with respect to our models, I believe that growth is likely to be greater than forecast. There is a possibility that the special factors that have held down inflation may start to unwind, but that may well occur in the context of an uptick in trend productivity growth.

Therefore, while I can imagine some reason to unwind a portion of the insurance that we took out last year, I think at this stage “steady as she goes” is probably the better policy approach. Thank you.

CHAIRMAN GREENSPAN. Governor Meyer.

MR. MEYER. Thank you, Mr. Chairman. The staff’s revised forecast features once again an upward revision to growth and a downward revision to inflation and hence a more favorable outcome for 1999 than was projected in the last Greenbook. Nevertheless, the staff forecast raises an important question for monetary policy going forward: How will the economy make a successful transition to sustainable growth and labor market equilibrium without an unacceptable increase in inflation? The forces that threaten to raise inflation over the forecast horizon are the prospect of a dissipation of favorable supply shocks and the expected persistence of very tight labor markets. Of course, the staff forecast may be wrong and inflation may continue to decline. For my part, I admit that to date I have not been able to retire from my discussions of economic performance the phrase “stronger-than-expected growth and lower-than-expected inflation.” Nevertheless, if one accepts the staff forecast, and I do, then it seems to me they have asked the right policy question and left it to us to answer it.

The key to the outlook in the context of monetary policy, therefore, is not the blissful state projected for 1999 but the pattern of rising inflation, especially in 2000, and the prospect of further increases thereafter based on the continued labor market tightness

at the end of the forecast horizon. The key policy question, therefore, is whether and when to adjust policy to improve the prospects of a better outcome in 2000 and beyond. It is hard to make such a policy adjustment appear urgent today and, indeed, it is not. But I hope we can focus attention today less on the decision about what the target funds rate should be during the period from March 30 to May 18, 1999, and more on whether and when an adjustment in policy might be appropriate in light of the forecast through 2000. I would also note that if a tighter policy appears justified, it might be better to move in that direction sooner, while the economy is still growing above trend, than later when growth may already have slowed spontaneously to below trend. I accept in broad outline and in most details the staff forecast for growth over the forecast horizon, assuming unchanged policy. The key developments recently have been stronger-than-expected momentum in domestic demand in the first quarter, partially offset by sharper-than-expected declines in net exports and more-moderate-than-expected inventory building. But the upward revision to GDP growth and the more favorable mix of GDP projected for the first quarter provide two reasons to expect stronger second-quarter growth relative to the last forecast: stronger momentum in demand and a positive contribution from inventory building.

My main quibble with the staff forecast relates to the further upward revision to their estimate of trend productivity growth. That revision, though small, lowers the staff inflation forecast by perhaps as much as  $\frac{1}{4}$  percentage point by the end of 2000. As a result, I am a little more pessimistic than the staff about the inflation outlook in 2000 and beyond. But the key to the inflation forecast is that the initial conditions--the very tight labor markets--would make it very difficult to avoid a significant increase in inflation without an adjustment to policy, even if the economy were to slow to trend immediately.

To put into perspective the implications of the initial conditions in the staff forecast, let me pose the following question: How well will we take advantage of the extraordinary disinflationary forces during this expansion, given the staff forecast or my slightly more pessimistic scenario, in order to lower the underlying inflation trend going

forward? Another way of asking this question is: To what degree will the current episode be an example of opportunistic disinflation? Inflation measured by the core CPI was 3.1 percent over 1995 before the coincidence of favorable inflation developments impacted the economy. How much will we lower inflation over the expansion from this point with the help of the extraordinary disinflationary forces that are so clearly important?

Let's take the staff forecast first. To put inflation on a methodologically consistent basis, I add 0.6 percentage point to their estimate of 2.5 percent for the core inflation rate over the year 2000. So the staff's forecast says that we have not lowered the underlying inflation rate at all. We get the same conclusion if we use the GDP chain measure of inflation. Of course, inflation is rising at the end of the forecast period, so we can infer that before this expansion is over inflation actually will have increased despite the extraordinary disinflationary forces at work.

In my forecast, the latter outcome is more evident and emerges earlier. What is driving this outcome? Blessed with a combination of positive supply shocks and supply-enhancing structural changes, monetary policy is the critical factor shaping how the benefits of these developments are shared between higher output and lower inflation during the expansion and, therefore, how they will affect the underlying trend of inflation beyond this expansion. To date their benefits have been split between higher output and lower inflation. However, in the process--in the staff's judgment and mine as well--we have allowed the economy to move beyond its sustainable capacity. The low overall CPI inflation during the period of supply shocks will be partly reversed as the supply shocks dissipate. That is an important part of the inflation story this year. And the benefits of a possible upward shift in the productivity trend itself are transitory, unless taken advantage of by monetary policy.

To be sure, recent economic developments have been exceptional. It has been a wonderful ride, and we have all enjoyed it. But we will ultimately be graded--and indeed we will grade ourselves--on the effect of current policy on the inflation trend in coming years. Might we not achieve a higher grade on the final exam by accepting a less



exceptional growth performance in the near term? That is the question we have to answer in coming months.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Thank you, Mr. Chairman. The basic condition of the economy in this country is well known by everybody here. It has been very well articulated this morning and I will not try to recite again all the factors involved. At our last meeting I felt that the risks faced by policymakers were balanced but that if the upside risks brought on by overly strong growth did not begin to moderate soon, they would need to be addressed. That moderation has not become evident as yet and the case can be made that the time may have come to take a first step.

I find myself pulled toward an asymmetric directive. But two factors give me pause. First, an asymmetric directive, if immediately announced under our new policy, would quite likely cause a spontaneous increase in market rates, especially since it would come as a surprise to many. Such a response might well turn out to be premature but, more importantly, would be undesirable because of my second reason. That second reason is that we seem to be moving ever closer to what could become a very nasty war in the Balkans. Indeed, it has begun. We all pray for an early peaceful solution, but we cannot know what will happen. At a moment such as this, if the Committee considered it necessary to raise rates for whatever reason, it should and would do so. If, however, the Committee were merely inclined to get a preemptive jump on a likely threat, I question whether it would be wise to do so at a time like this, rather than await further developments in a potentially dangerous situation. Like the military itself when it is heading toward a fight, it probably would be a good idea to keep our powder dry.

CHAIRMAN GREENSPAN. Governor Rivlin.

MS. RIVLIN. Those of you who are careful listeners will remember my comments about the little elves who get their kicks out of confounding the experts and modelers and doomsayers by making the U.S. economy perform just a bit better than any of those folks imagined that it could. Well, as I read things, not only have the elves been

scoring again on all fronts, they have driven the enemy from the field. Now they are writing the Greenbook! [Laughter]

MR. PRELL. Is that a short person joke? [Laughter]

MS. RIVLIN. Despite Mike Prell's denial of "new era" thinking, the Greenbook forecast actually looks pretty good. And as Cathy Minehan pointed out earlier, a good deal of the shift in the staff's thinking over time reflects changing views about productivity and hence about potential growth. As I read what they are saying at the moment, it is that the economy could grow at roughly 3 percent for quite a while, with unemployment below 4.5 percent and with not very visible internal pressure on inflation, although one has to worry about risks from outside supply shocks.

The favorable current picture has been detailed around the table and seems to validate the Greenbook optimism. We have the phenomenon of growth slowing from the improbably torrid pace of the fourth quarter to a still strong but seemingly more solid rate at present. We have continued extreme tightness in labor markets everywhere but no sign of general wage inflation--indeed suggestions of deceleration--well predicted by our staff, it should be said. We have rapid productivity growth plus a wildly competitive economy in which no one thinks they have any pricing power, which apparently allows real earnings to rise and be combined with declining inflation without putting any stress on profits. We have a core CPI that has risen only about 2 percent over the last year despite outsized jumps in tobacco prices. The latter have to be considered good news if they induce some people, particularly young people, not to smoke as much. We have other inflation indicators still falling. And the outlook for the next year or two, while showing some acceleration in inflation, is so benign that I think the elves are getting bored or becoming bureaucratized. Even the worries that Brazil might fall apart and precipitate another overseas downward spiral, which seemed quite real at the time of the last FOMC meeting, have receded somewhat. The view has turned into some modest optimism of "the worst may be over variety" and an expectation of slow but sure recovery in the world economy.

Are there risks? Certainly there are. On the upside there is the risk that the stock market's apparently unwarranted continued upward price march may accelerate again to even more bubbly heights, leading to a devastating crash when the bubble bursts. Another risk is that all the things that have held inflation in check for so long will suddenly reverse, leading to an upward jolt to prices that might be sufficient to rekindle inflationary expectations and leave inflation fighters playing catch-up. Another is that some unforeseen set of events in an unnamed country much bigger than Ecuador--some have named China--will set off a new round of investor panic on the international scene. These are all possible. But the risk of rapid shifts seems a little far-fetched. The more likely moderate turns for the worse that might occur seem likely to do so in the context of a fairly firm atmosphere of confidence among investors and consumers in the United States and of low inflation expectations so that rapid snowballing effects are unlikely.

The sustained solid good news for quite a long time now on both growth and inflation seems to me to have brought us to a point where we will have time to react even if the good news begins to turn. So I see the risks as fairly balanced, with not a great deal of urgency for us to be preemptive.

In the meantime, there is a serious task for economic analysts all around the country--not so much at the Board, although here too--to try to find out why things are going so well and what we can do to keep them going well. That analysis must focus on what is really happening at the firm, the household, and the market levels. It is hard not to conclude from recent events that tight labor markets are good for productivity growth, or can be under certain circumstances. What is happening to make this true? Is it that new management attitudes see scarce labor as an opportunity to reengineer processes or substitute capital for labor, or both? Is it that an awareness of the importance of skill acquisition and adaptability, combined with new techniques for training both on the job and in newly flexible and relevant educational institutions such as community colleges, has given new opportunities for productivity improvements? Is it that new workers moving into the tight labor markets have a major contingent of unusually ambitious and upwardly mobile immigrant workers? Does it relate to the unusual backlog of

technological innovations flowing out of new kinds of practical research and development? The answers are not going to be found in macro statistics or in models. We have to get into the interstices to find out what is happening and how we can keep it going. But that is not such a bad assignment for analysts--to investigate the causes of the good news.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Mr. Chairman, economic conditions in the Eighth District are largely the same. Some industries and some geographic regions are doing a little better and some are doing a little worse, but the overall picture is certainly one of steady, sustained growth without undue strains or problems.

Two of my contacts, one at FedEx and one at UPS, both report steady growth in their domestic business. My contact at FedEx had some detailed comments about the company's international business. He said that Fed Ex is seeing the first pickup in a year in its international business--an increase of 18 percent in the latest quarter on a year-over-year basis--led by strong shipments originating in Asia and going both to the United States and to Europe. That would suggest that exports are flowing out of Asia. South Asia had the best growth, Japan showed single-digit rates of increase, and growth in Europe was slowing a bit but still fairly strong. However, there was no growth whatsoever in the traffic from the United States to Japan, and that would be consistent with what we know from other sources.

I was particularly interested in talking with \_\_\_\_\_ contacts and others about the labor market situation. I heard from these people the same stories we have been hearing about problems in recruiting entry-level employees and problems with increased turnover. I have been trying to make sense out of that situation. I certainly do not get the impression that the business leaders I am talking to believe this is anything approaching a crisis situation. They are learning to live with it. Nevertheless, I have the distinct impression that they regard the situation as inherently temporary; it's not something they want to see continue nor do they expect it to go on indefinitely. They are expecting some of the pressure to come off. Of course, that is the same story we have

been hearing for eighteen months now, and the pressure has not come off. But the strains have not been so severe as to cause them to do anything very dramatic. There continues to be pressure around the edges in compensation that is not showing up in the wage numbers. \_\_\_\_\_ is providing tuition scholarships because a lot

employees are part-time

and so forth. So,

\_\_\_\_\_ is recruiting people in

\_\_\_\_\_ a city with great labor market pressures, is by providing tuition assistance at the local university.

\_\_\_\_\_ had an interesting comment on the labor situation. He said

\_\_\_\_\_ is able to extract--that's my word, not his--a fair amount of what he called "discretionary effort" from the labor force. By having its labor force work somewhat longer hours of overtime and perhaps at a somewhat faster pace, the firm is able to handle its problem of a shortage of entry-level employees. He said that his firm was pressed to the limit at the time of \_\_\_\_\_ and could not have continued the pace for any great length of time. Fortunately, the \_\_\_\_\_ and that took the pressure off.

\_\_\_\_\_ has fewer people in its training program than the firm would like--my contact would feel comfortable with about double the number--he does not anticipate any problem through the fall. The fall, of course, is the peak season for

\_\_\_\_\_ but it all depends on demand coming out more or less as anticipated.

Let me add one comment on the policy front. We have drifted a little into the policy discussion and I don't want to go any further in that direction at the moment. But I would like to suggest that some of the differences around the table may reflect different views on what our inflation target really ought to be. My own view is that our inflation target ought to be in the neighborhood of 1 percent on the CPI. Given the not completely understood discrepancy between the CPI and the GDP chain index, perhaps I should say 1½ percent on the CPI. My suspicion--though of course I would let everyone speak for himself on this--is that some people around this table are more comfortable with allowing the inflation rate target to be somewhat higher because they believe it is inappropriate to try to push it down. So, certainly, my policy views reflect in part my belief that we are

clearly on the high side of the appropriate inflation target. I just throw this question out as something we ought to be clear about: To what extent do our policy differences reflect differences in our views about the outlook and the risks, and to what extent do they depend on differences in where we really want to go in the long run?

CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. Before I comment on current events, I would like to step back to another interesting time, the 1960s. At that time we thought the rate of productivity growth was high and the NAIRU was low, though we didn't call it NAIRU then. It turned out we were wrong on both counts. Both variables, which one might expect to change at rather glacial rates, seemed to change rather abruptly--the NAIRU in the late 1960s and productivity growth in the early 1970s. It is difficult to proclaim that now is another era of abrupt shifts--the truth only becomes known many years after the fact--but there is some evidence in favor of that hypothesis.

The staff has done calculations of productivity and it looks as if there is enough evidence to suggest an upturn in productivity growth rates of about ½ percentage point beginning in about 1995. The staff has also done NAIRU calculations. While these are much more speculative because the NAIRU is not directly observable--and many things could be responsible for the good price behavior--at least one interpretation of the data is that the NAIRU shifted down by about ½ percentage point also in about 1995. One could make a justifiable case for an even larger shift in the NAIRU. The evidence is still murky. But this could be a time when the unfavorable shifts of the late 1960s have been reversed and, as then, the shifts could have taken place rather abruptly. I won't get into causes. There could be many, and a number of you have raised interesting hypotheses. But the implication is important. If we have had this dual shift, the implication is that output could grow at a rate of nearly 3 percent a year without sparking new inflation and that unemployment could stay in the neighborhood of 5 percent or perhaps even a bit below that, again without sparking new inflation.

One apparent casualty here is the Taylor rule, which is now telling us that we should be raising interest rates significantly. As I have noted before, and others have

also, that rule needs precise point estimates of the inflation and unemployment targets. If the estimates are off, the advice is off. We could get around these uncertainties by supplanting the Taylor rule with what I will call a speed limit rule: That we should target growth in aggregate demand at about 3 percent, or perhaps a bit less, and stay with that policy as long as inflation does not accelerate.

On the demand side, conditions look about right. The current Greenbook forecast for 1999 is exactly 3 percent, with some slowdown forecast after that. I will not go through all the forecasting uncertainties; they have been talked about at length. But I will point out that most Blue Chip forecasts are in a very similar neighborhood and, as many of you have said, most Reserve Bank forecasts are as well.

On the inflation side, the Greenbook does forecast a moderate pickup, but it is partly due to special factors such as oil, with only a relatively small amount due to tight labor markets. The latest evidence, after stripping out various kinds of shocks, seems to suggest a slight deceleration, not acceleration, in the trend of both prices and wages. Surveys of inflation anticipations do not show much evidence of acceleration. There has been a very slight increase recently in anticipated inflation based on a comparison of long-term nominal and real interest rates. But this increase is more likely explained by the reversal of flight-to-quality factors that had previously lowered nominal interest rates more than real rates. The Blue Chip forecasters continue to write down their inflation forecasts even as they write up their real output forecasts.

Putting it all together, it is hard for me to find much evidence of accelerating inflation right now. But this all involves guesses and estimates. What if we are wrong? In that regard we may benefit from another welcome change. Monetary policy may work more quickly than we had thought previously. There is lots of uncertainty about that as well. It is a good area for research. But in addition to the reasons that Alice Rivlin brought up earlier, another factor is how anticipatory credit markets have become. The Chairman could change long-term interest rates by 25 basis points, if he wanted to, by just frowning in a certain way! [Laughter] So, if the lags are shorter, being wrong does not trouble me quite as much as it did a while back. We should look at the evidence

carefully, particularly on inflation and demand growth, and change rates quickly if we need to. But as others have said, I don't think we have to be preemptive now. This all adds up to an argument that our present policy stance is about right. Thank you.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. Thank you, Mr. Chairman. In the material we received at the hotel last night was the proposed draft statement of the directive, which begins: "The information reviewed at this meeting suggests that the expansion in economic activity has moderated in early 1999." I was curious whether I would hear that view expressed around the table because I certainly did not hear it in my District. I have not heard it around the table. If that sentence is supposed to convey something about the real GDP number, I don't think it fully captures what we have been hearing and feeling about economic activity, whether from the Purchasing Managers' Report or anything else.

The directors and Advisory Council members in my District continue to be generally upbeat about the first quarter. While we've had some reports of a slowing in demand in these first few months compared to the fourth quarter of last year, which was surprisingly strong to most people, those were more than offset by reports of further increases in sales and orders in the first quarter. Retailers, who had expected a slowing after the surprisingly strong year-end numbers, are now reporting that the first quarter will show further increases. They also say that their inventories are below desired levels and that they want to try to get them up. One retailer said that catalog sales were up sharply compared to in-store sales, about 30 percent in the first two months of this year versus last year. They break their sales figures into two components, those from 800-number calls and those from Internet orders. The Internet share has risen dramatically, and the profit margin on the Internet sales share is significantly higher than on the 800-number catalog sales.

The labor markets continue to be tight throughout the District, especially in the southwest Ohio and central Kentucky metro areas where reported unemployment is less than 2 percent. As others have noted, temporary employment agencies say they have more requests for workers than they can meet. One large regional commercial bank that



is headquartered in the Cincinnati area but operates in several states said it currently has over 500 approved openings that it is unable to fill.

Companies, both large and small, continue to report an escalation of health care costs. Some of the increases they report are really very, very high. Some companies are trying to contain these costs by cutting coverage or by raising the deductibles. They are targeting prescription drugs especially because they say those costs are rising very, very rapidly; so they are trying to get the employees to pay more of the cost for prescriptions.

One company with a unionized workforce is bargaining for what they call a "total compensation increase" over the life of the contract and letting the union and the employees decide how much will go into the paycheck and how much will go into benefits. They say that if they can contain the increase over the life of the contract to a total of 6 percent per year for the two components, they will be satisfied.

Construction spending is accelerating further from the record 1998 pace, and unions are reporting that contractors are now offering bonuses to previously retired construction workers to come back into the workforce, especially to train and tutor apprentice workers. We even have had some reports of retailers giving as their reason for going out of business the difficulty and cost of attracting and retaining workers. Bankers continue to report strong loan demand. Home sales have been so strong that there is a growing backlog of appraisals to be done.

As Mike Moskow reported, steel companies are feeling a lot better about their situation, especially since steel exports from Japan have dropped off sharply. They do mention that there has been some increase in steel coming from Europe and Mexico. Nevertheless, consumption of steel has continued to be extremely strong, and price increases have been posted for the second quarter. We don't know if those price increases are going to stick, but the industry is quick to point out that the increases are only a reversal of price cuts taken last year that they considered too large. So, in their view, the price hikes are not inflationary.

Turning to the national scene, I would note that also in our hotel rooms last night was a copy of the Board staff's briefing yesterday on domestic nonfinancial developments. I thought that did a very good job of summarizing what the implications of an improving productivity trend--technological efficiencies or those other labels we have talked about in analyzing the real growth numbers--might be for monetary policy. I would encourage the staff to go further in that analysis to develop an understanding of the implications for the financial sector, not only for banks but for other financial intermediaries. There may be implications for asset-based lending or income-stream or working-capital-based lending if lenders begin to make some mistakes. There is a tendency to overshoot especially when negative second differences come into play and the rate of change starts to slow. Both short-run business earnings and market valuations of assets can be influenced by the dynamics that are described in that analysis. If so, an inherited approach to credit risk analysis would subsequently prove to have been a myopic way to look at the risk/return relationship. One does not have to have been a lender in Southern California, Arizona, Texas, or some other places in the 1980s to see how those dynamics work out. But the people who made those mistakes back then are now retired, so I guess there's a new group that has to repeat those mistakes.

The tendency is for positive productivity surprises, by their very nature, to be reflected in favorable earnings reports. If that tendency has been amplified by a failure of workers or their union leaders to fully appreciate that the value of the marginal product of labor has in fact risen, then there is going to be a further but temporary acceleration in returns to capital versus returns to labor. And those dynamics at some point have to reverse. A reversion to conditions where real wages do reflect the value of the marginal product of labor, which we know will ultimately happen, requires a mirror image of surprises on the returns to capital. The risk to financial stability depends on the ability of lenders, both banks and financial intermediaries, to absorb those adverse surprises. As I've said before, stability in various measures of average prices of consumer goods is not a sufficient condition for overall monetary and financial stability. It is a bigger issue than that. Thank you.

CHAIRMAN GREENSPAN. I think we can break for coffee.

[Coffee break]

CHAIRMAN GREENSPAN. Don Kohn has the floor.

MR. KOHN. I will be referring to the table marked "Financial Conditions." 2/

Once again the Committee is faced with considering policy against the backdrop of unexpected strength in output and weakness in inflation. Central to that consideration would seem to be the need to determine whether financial conditions are consistent with economic growth slowing to trend reasonably promptly, preventing substantial further tightening of the labor market. If they are, the case for continued "watchful waiting" would be strengthened, though the question of whether the level of production when growth finally slowed was too high to be sustained without inflation pressures emerging would still be open.

To help with judging the appropriateness of current financial conditions, I have distributed a table showing information on key financial returns, prices, and quantities. I chose two time periods to compare with current conditions: The first is the average of June and July of last year, which predates the Russian crisis and subsequent turmoil in financial markets; and the second is mid-November, just before your last easing action. Other things equal--most importantly the underlying strength of demand--over time, unchanged financial conditions in real terms should be consistent with output growing around its long-term trend rate. In the context of the current situation, such financial conditions ought to contribute to a slowing of the pace of economic expansion to around the rate of growth of its potential, although the average level of output would not necessarily line up with the level of the economy's potential.

Looking across these periods, what is striking is how little effect monetary policy easing has had on many of these measures. Short-term borrowing costs for businesses, lines one and two, have fallen, of course, but tightening standards and non-price terms at banks over this interval have probably offset the effect of some of the recorded drop in the average bank loan rate. Lower short-term rates have not shown through to the cost of longer-term business credit, lines 3, 4, and 5, perhaps the more important determinant of spending. Investors have become much more discriminating, and while the highest quality borrowers have experienced a decline in the cost of bond finance, lower-grade issuers are paying more. On average, it would appear that the nominal cost of long-term credit to

businesses has changed little on balance since November and has increased a bit since early last summer. With longer-term inflation expectations dropping since then, as shown by the survey results on lines 16 and 17 at the bottom of the table, real long-term borrowing costs most likely have risen.

In the household sector, nominal interest rates are about unchanged on fixed-rate mortgages, line 7, but have declined on consumer credit, here represented by auto loans at banks, line 8. Trend growth in the monetary assets of households and others, shown by M2, line 11, remains quite rapid. However, expansion in broad money has slowed more sharply in March than had been expected, suggesting that more of the spurt of last autumn might have been attributable to market turmoil than we had estimated and that a slower growth trend may be emerging. The foreign exchange value of the dollar, lines 12 and 13, has fallen modestly on balance since last June and July, but has appreciated since November. In fact, after the recent firming of interest and exchange rates, markets have already taken out many of the effects of the third easing last November, and they have done so without building in expectations of an imminent tightening on your part.

The notable exception to this pattern of generally moderate and mixed changes in financial conditions, of course, is the stock market. The cost of equity capital for business, line 6, apparently has dropped considerably further and the impetus to spending from outsized increases in household wealth remains substantial. The longer-run moving average of equity price increases, line 10, is weighted to capture the lagged effects of stock market wealth on consumption; it suggests that the contribution of equity appreciation to growth above trend has eased only modestly since last summer. In the staff forecast, equity prices decrease slightly and interest and exchange rates remain near current levels so that financial conditions are roughly unchanged for some time. This stability stands in sharp contrast to the substantial declines in long-term interest rates and increases in equity prices in the year leading up to last June and July, which undoubtedly contributed to above-trend growth. Stable conditions should, other things equal, tend to slow economic growth to a rate more in line with the economy's trend rate of growth.

Of course other things in addition to the changes in financial markets captured in the table have not been equal over the last nine months. Importantly, prospective foreign demand has been revised down considerably as the emerging market crisis has spread to Latin America and the Japanese and European economies have weakened. At the same time, domestic demand has been more resilient than anticipated. However, Mike has discussed a number of stock-flow or accelerator-type relationships that

work in the staff forecast to reinforce the tendency for the economy to slow at the stable financial conditions assumed in that forecast.

As noted, reasonable prospects that such a slowing will occur before very long would seem to be an important factor behind a decision to keep policy unchanged in the near term. Halting the intensification of strains on labor resources at some point is a necessary condition for keeping inflation in check. It may not be sufficient: Inflation pressures still may build, as they do in the staff forecast, even around current levels of labor utilization. In that case, the funds rate will eventually need to be raised to contain inflation pressures. But in light of the considerable uncertainty about the relationship of labor market tightness to inflation, if the economy is expected to slow, the Committee may opt to await firmer evidence that costs and prices are likely to accelerate. The recent downturns in 12-month averages of inflation in core CPI and nominal wages serve to underline these uncertainties and also should help to keep inflation expectations in check as the Committee sorts through the incoming data for early signs of building inflation.

In contrast, expectations that growth will continue to exceed its longer-run trend for some time might warrant consideration of near-term policy firming, even without hard evidence in hand of an upturn in price inflation. A significantly delayed economic slowing could leave labor markets noticeably tighter and potential inflation pressures more intense than today. The subsequent tightening of policy and induced weakness in economic activity needed to correct those imbalances would tend to be larger and hence more disruptive. Moreover, the possible downside risks to the forecast that the Committee was in part insuring against in its easing moves last fall have diminished in recent months. Emerging market economies generally have weathered the effects of Brazilian problems and shown increasing signs that investors are regaining confidence. In domestic financial markets, liquidity has improved substantially, and risk appetites and assessments look more reasonable.

Markets would be surprised by a near-term tightening of policy and hence would react strongly. In a situation that called for policy firming such a reaction might be seen as a necessary aspect of imparting restraint on demand, provided it were orderly and did not precipitate a renewal of exaggerated flights to quality and liquidity. In that regard, the improving trends in domestic and foreign financial markets have not been hindered by the appreciable backup in intermediate- and long-term interest rates in the United States over the intermeeting period. To be sure, the effect on markets of building in expectations of a policy firming in the next year is not likely to be the same as the effects of experiencing such a firming

today. But the reaction of markets may indicate at least that the chances of disruption from a policy tightening today are considerably smaller even than they were from not easing a short time ago.

If the Committee saw the probability of a turnaround in inflation as having risen, and as now more sizable than the probability of undue softness in activity, but not by enough to tighten policy at this meeting, it might want to consider adoption of an asymmetrical directive. Such a directive has meant different things to different people at different times. But based on past experience, an initial shift to asymmetry might connote that, in light of those risks, the Committee saw its next move as more likely to be a firming than an easing and that such an action probably was more than a theoretical possibility in the distant future.

The Committee has reaffirmed its option to announce immediately such a shift in its outlook. As a reminder, the Minutes and the Chairman's testimony noted that not every change in tilt would be published immediately and that those that were would meet a couple of criteria: They would represent a significant change in the Committee's thinking, one that was not appreciated by the public or the markets, and one in which that lack of understanding or knowledge could seriously mislead the public and markets.

At this time, markets have built in expectations that your next move is more likely to be a tightening than an easing, but not any time soon. Market reaction to publication of a shift to asymmetry is difficult to predict, and could be shaped to a degree by the accompanying announcement. We did, unfortunately, have one recent test--the leak of the March 1998 shift to asymmetry. In reaction to that story, federal funds futures markets moved up their implied probability of firming at the next meeting to 30 percent, and intermediate- and long-term rates backed up 10 basis points even though markets already had built in a 10 percent chance of firming. A case could be made for a more muted response today on the grounds that markets would take into account the fact that after March 1997 the many asymmetrical directives toward tightening were not reliable predictors of subsequent Committee action. But the Committee did say that it was reserving announcements for significant shifts that it wanted to alert the markets to; and with no near-term policy firming now built into the yield curve, an even larger reaction than a year ago is a distinct possibility. Markets might build in substantial odds on tightening in May or June, and ratchet up expectations of short-term rate levels for the rest of 1999 and 2000 as well. Moreover, with the Committee having alerted the market to its readiness to act, market participants are likely to scrutinize incoming data especially hard for their implications for the next meeting.

If the Committee sees firming action over its next few meetings as considerably more probable than is now built into the markets, it might want to consider publication as well as adoption of an asymmetrical directive. Presumably, the Committee would be contemplating such a possibility because it was concerned about the strength of demand and its implications for inflation. In this circumstance, the market reaction would be helpful, putting in place some probably needed restraint more quickly than if the Committee had simply waited and then tightened.

If, on the other hand, the adoption of an asymmetrical directive was seen as a more marginal shift, reflecting a changing balance of risks but not necessarily significantly higher odds of tightening at upcoming meetings, then the extent of market misunderstanding is relatively less, as is the need for immediate restraint. Indeed, encouraging the market to build in a significant chance of tightening would itself be misleading. In this case, the Committee could allow the asymmetry to be published in the Minutes of this meeting to be released in May, explaining why it did not choose to publish it immediately.

CHAIRMAN GREENSPAN. Questions for Don? If not, let me get started. For quite a while our Greenbook and indeed all models have been projecting slower economic growth and higher inflation than actually have materialized. Looking back, it is conceivable and perhaps likely that the major explanation for these projection errors is that the models have missed the extent of the acceleration in productivity. By that I mean that the cyclically adjusted rate of increase in productivity, as now shown in the data, has been rising appreciably since the mid-1990s. The evidence of this in the underlying data is fairly clear-cut. That is, the speed-up of productivity growth can explain to a large extent both the significant acceleration in GDP from the supply side, as a number of you have indicated, and the suppression of unit labor costs and total unit costs more generally, which in turn explains the softness in inflation.

The interesting question, however, is how to project that trend of acceleration in productivity. It is clear arithmetically, and indeed it is in the nature of any structural model with fixed coefficients, that if we continuously underestimate one fundamental variable that is rising faster than its underlying coefficient would suggest, then once we stabilize its rate of growth, we engender the type of forecast that we have in the

Greenbook, namely, a forecast that implies a slowdown in economic activity or economic growth and an acceleration in inflation. That is algebraically necessary.

I think the question on the table is whether we are looking at an aberration or at the emergence of a new era. If we take away the new era alternative and ask ourselves what the cyclically adjusted productivity growth rate was for a significant part of the pre-1995 period, it was flat. Indeed, one of the more interesting statistics that corroborates this independently is that terribly flawed number that we often discuss, the expected long-term growth in earnings per share of the S&P 500 as estimated by security analysts. Such analysts throughout the country predict the individual company earnings that are aggregated in an averaging process of the I/B/E/S organization. As we are all aware, those forecasts are highly biased on the upside. Nevertheless, if we look at the history of these long-term earnings expectations, from 1983 until late 1994 the data fluctuated in a very narrow range of about 1 percentage point.

If we presume that the bias in those numbers has not changed significantly over the years--and there is no evidence that it has--we then see a major breakout of this series in late 1994. Between late 1994 and the current month, the rise is almost 3 full percentage points. What does that mean? It means basically that the earnings expectations for individual companies, as evaluated by the security analysts who obviously are speaking to corporate management and getting an excess dose of optimism, are changing very dramatically. These are long-term earnings expectations of individual companies that are not unrepresentative of the economy as a whole. I will argue that the noncorporate sector, which is not included, does raise very interesting statistical problems.

In any event, we are looking at something that raises a question as to why the analysts are changing those estimates. Roughly 40 percent of the earnings stem from foreign affiliates and are foreign directed. It just is not credible that the acceleration in long-term earnings expectations in the last year has been the result of a major increase in expected long-term earnings of foreign affiliates. This underscores the likelihood that increased earnings are basically domestic.



Since pricing power is clearly nonexistent, the improved earnings expectations have to be the result of cost containment of some form or another, which on a consolidated basis is essentially labor productivity for the economic system. We therefore have a variable missing from our models, if I may put it that way, which is essentially this change in expected long-term earnings. Those of you who have seen the chart know that there was a dramatic acceleration that started in late 1994 and has persisted. The rise is not a cyclical change; the line just keeps going straight up. It slowed a little during the crisis in the summer of 1998 and previously in the crisis in 1997, but it did not go down; it just flattened out and then it took off again.

If we could forecast that variable, it strikes me that we would have a very important insight into the process. But implicit in the Greenbook forecast, and indeed in everybody else's forecast, is that this variable will flatten out because a constant cyclically adjusted long-term growth rate in output per hour is also implicit. That has not occurred in the last four years or so. However, this process is incomplete, meaning that it still has some distance to go. You may recall the anecdotal comments at our last meeting about technological synergies. Reportedly, they are occurring at a pace that implies that rates of return on new capital facilities vis-à-vis the cost of capital still have not crested. Anecdotally, people we speak to in businesses such as computers, software, telecommunications, and obviously the Internet all say that the backlog of potential profit-making investments is still rising. That is what the security analysts are saying. The latter obviously are not independent observations. It is just that the security analysts' expectation is a far broader sample measuring the same phenomenon.

As a consequence of all this, we were all concerned at the last meeting, and I think rightfully so, that we were experiencing a major acceleration in aggregate demand. And if anything, the acceleration is even greater now. The numbers for private domestic final purchases are truly awesome, as everyone has been observing.

Everyone has been concerned about weakness in manufacturing, but I suspect that manufacturing activity may have turned up. Indeed, some of the numbers we use to estimate industrial production suggest that the manufacturing component of industrial

production could very readily be up  $\frac{1}{2}$  percentage point in March. That is showing up in the Chicago Purchasing Managers' report as well as in a lot of anecdotes relating to the manufacturing sector.

There is no evidence of which I am aware of any acceleration in prices. I think the uptick in the Chicago Purchasing Managers' prices-paid survey reflects the rise in oil prices. Everybody has seen an oil price increase, and the proportion of people who report that they have seen price increases goes up every time there is an increase in oil prices. But oil prices are not what they used to be in this economy. The extent to which energy affects manufacturing industries has declined dramatically, and the impact of oil on GDP and inflation has fallen quite markedly.

We have to be careful in our assessment of the CPI. That measure of prices can show a big increase, and it has. But the CPI is a flawed statistic; it is a statistic that overweighs housing and overweighs a significant part of personal consumption expenditures. The big difference between the PCE chain-weighted index and the CPI is largely in the weights. That is, if we ask people what they spend money on, which is the basis of the CPI survey, they remember their housing costs. When we match the housing costs, mortgage payments, and all the big ticket items against known retail sales, we discern a very significant bias in the weighting system of the CPI that is creating a considerable divergence from the far superior PCE deflator. Nonetheless, in the first two months of this year the two measures have shown the same thing, virtually zero inflation, both on the total and on the core. That is going to change for the March data as the oil prices come in significantly higher for the CPI than for the PCE.

What is more interesting are the wage data, which I find increasingly difficult to understand. Why are wage increases slowing down in this exceptionally tight labor market? To be sure, the fall in inflation is a major factor, but it really does not explain the extent to which wages have decelerated in this period when the labor markets are so tight. Nonetheless, the combination of a slightly slower rate of increase in compensation per hour and accelerated productivity has lowered the growth in unit labor costs for the nonfinancial corporate area to 0.1 percent over the last four quarters, a significant

improvement. That is a lower increase in unit labor costs than in the preceding period. As a consequence, the change in value-added prices in the nonfinancial corporate sector--that is, the deflator for gross product originating from corporations--is actually negative and has been negative for a number of quarters.

The difficulty that I have in looking at overall business sector productivity is an issue that we have discussed previously, namely that the measurements we see in the corporate and the noncorporate areas cannot be reconciled. The margins of noncorporate profits, if I may use the term, are not bad. Yet the implicit output per hour number in total business sector productivity or nonfarm business sector productivity is picking up an implicit output per hour number in noncorporate business that has been declining, on balance, for two decades. For example, in industries where we have very significant amounts of noncorporate business--the legal profession, the medical profession, and business services--measured annual productivity has declined about 2 percent per annum on average since the late 1970s. That is just not credible.

So, we have a major measurement error problem in the noncorporate area that distorts our view of what is happening to productivity. As a result, the corporate data--especially nonfinancial corporate data--are far more reliable. When we look at manufacturing, the numbers are rising at a very sharp pace, more than for all nonfinancial corporations. I might add that the January-February data for manufacturing show strong productivity growth, to the extent that we have hard data, and they show unit costs going down. Indeed, if anything, overall margins in the most recent quarters are starting to open up after being constrained through a good part of last year. And the numbers for farm productivity, for which we have hard data, are rising over 4 percent per year. So, the crucial statistic that is throwing this whole forecast off is the growth rate of productivity, properly measured. When the increase in that number slows, then I think the new era will be over. We will go back to the relationships where the fixed coefficients, the NAIRU, and all the other factors that are being overridden by this variable come back into place.

We have not reached that point yet. At the moment, if we want to look at the evidence both anecdotally and in the security analysts' forecasts, March is virtually unchanged from February. We may be seeing the beginning of the topping-out process, but it follows a very sharp acceleration. Nonetheless, I think we are confronted with the fact that labor markets are very taut. Initial claims are unbelievable. The tightness in markets is such that, as Cathy Minehan points out, there is evidence that production in the First District is being restricted by a lack of workers. And I dare say that is probably true in one way or another throughout the whole country. We may at some point soon begin to see the wage acceleration, but we are not yet at the point where inflation is beginning to move in the pipeline.

While I think it is exceptionally likely that the next move the Committee will be making will be on the upside, I do think--with inflation effectively at zero and with no evidence yet that the acceleration in productivity has come to an end--that we have time. Indeed, if this acceleration in productivity continues, I believe we are going to start to see prices falling, although that would not be deflation in the usual sense of things imploding. As a consequence, even though in one sense I feel inclined toward asymmetry toward tightening because I think that is the likely direction of our next move, I am a little concerned about adopting an asymmetric directive today.

I am assuming that we will choose not to move, which is what I generally heard in the comments around this table this morning. I would be disinclined to move toward asymmetry if for no other reason than I think, were we to do that, that we would have to announce it. I agree with Mike Kelley; I am getting very queasy about this Kosovo war. I see potential dangers here. The antiseptic wars that we have been experiencing--the Gulf War and the more recent air attacks on Iraq and Serbia--have given us, I think, a mistaken view of what war is. We are moving very quickly toward using American ground troops in Kosovo. The situation is getting scarier and scarier.

As Mike Kelley points out, if there were any urgency about moving toward a firming at this stage, I would say we would have no choice. We would just do what we have to do. But considering that we do have some time and flexibility, I would

recommend that we stay where we are at this point both with respect to moving interest rates and with respect to remaining neutral on symmetry. Vice Chair.

VICE CHAIRMAN MCDONOUGH. Mr. Chairman, I not only support but applaud your recommendation. I think an announcement of a tightening in policy at the present time would make us seem oblivious of what is going on in the world. But perhaps even more seriously, with a complete absence of inflation, it would put the Committee on record as being opposed to economic growth. Inevitably that is how a tightening move would be perceived, and I don't think that would be an appropriate message for us to send.

CHAIRMAN GREENSPAN. President Poole.

MR. POOLE. Mr. Chairman, if I were a voting member I would, with respect, dissent from your recommendation. I want to explain why. First of all, I believe the appropriate inflation goal, properly measured, is zero in principle. As I translate that into price indexes, it gives me a CPI somewhere in the area of 1 or 1½ percent, given the ambiguity of the reading that we are getting out of the chained price index. So if we stated the target as a CPI of 1½ percent, plus or minus 1 percentage point, it seems to me that we are already at the upper end of that range and probably heading a little higher. Secondly, in the absence of the credit market disturbances last fall, most of which have dissipated, I think it is very unlikely that we would have cut rates then. So now that the markets are mostly back to normal, I believe it is time to unwind those cuts and bring monetary policy back on course. Thirdly, I think the balance of the risks is on the upside. I would illustrate that point by comparing the following two options: One option is to raise rates now and have it turn out ex post not to have been necessary; the other option is to hold rates steady now and have it turn out after the fact that we should have tightened. I would much rather deal with the former situation than the latter because I believe it would be much easier to reverse a tightening than to have to catch up if it turns out that we are behind.

I absolutely agree with you that if we have a tilt in the directive, it ought to be disclosed given the changed announcement policy. If the information regarding the tilt

were released six weeks from now after our next FOMC meeting, the market would be confused about what our new disclosure policy means. So, if we are going to have a tilt, we should disclose it. And that, I think, is a good reason not to have a tilt.

I also believe that at present we have as good an opportunity as we are ever going to have to emphasize that our objective is low inflation and not an attempt to control the rate of growth of GDP or the unemployment rate. I say that because there is a widespread expectation that the increase in oil prices will lead to an increase in the price indexes in the months ahead. Whether that means that we should act now or wait until we actually see that in the price indexes is a matter for discussion. I think it would be better to act ahead of time before we see it in the indexes. Thank you.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. I support "B" symmetric. I don't think there has been enough of a change since the last FOMC meeting to warrant a change in our basic directive. As far as what we stand for, I don't think our primary objective is zero inflation. In my view, our primary objective is maximum sustainable growth, and low inflation is simply a means to that end. Therefore, I think we need to see something in the pipeline, even very preliminarily, that suggests that the economy is beginning to experience a buildup in inflationary pressures that puts sustainable economic growth in jeopardy. Or we need to see something, even if it is very preliminary, that suggests that we have the beginning of boom conditions. Neither strong growth alone nor a low unemployment rate alone is a reason to tighten monetary policy. So, I favor steady as she goes. Our next move may indeed be a move to tighten. But that in and of itself doesn't justify a change from "B" symmetric at this point.

CHAIRMAN GREENSPAN. President Broaddus.

MR. BROADDUS. Mr. Chairman, my views on policy are related to a couple of the points I made earlier in the economic go-around. First, as the Greenbook indicates and as you have stated very eloquently, we are looking at an acceleration of productivity in this country. If that is true, that implies an increase in real interest rates. That is not antigrowth; that is just the way the macro economy works, as I understand it. And I

worry that if we fail to validate that increase, we risk over-stimulating the economy and eventually producing inflation.

Secondly, whereas the increase in the trade deficit last year reflected widespread weakness abroad, it seems to me more likely that an increase this year could reflect excessive domestic demand in the U.S. economy, which could lead to a depreciation of the dollar and inflationary impulses from that direction. What worries me the most, ironically, is that our high credibility may in some sense be permitting us to delay confronting this inflation risk. But if things ever begin to go in the other direction, I think they could unravel very quickly. So, as I said at the last meeting, I think it is time for us to get back in the ball game. In my view, a step toward an asymmetric directive would be a good way to do that.

I hear your comment about Kosovo. I don't know exactly how to read that in the sense that I think, as you suggested, it is likely to be a lengthy conflict. And it is a very dangerous situation. But the longer we wait, the more difficult it will be to move. It seems to me that we might want to try to preempt that problem by moving sooner rather than later.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, I basically agree with your recommendation. I am somewhat more inclined to favor the adoption of an asymmetric directive to the upside. But, quite frankly, there does not seem to be much risk in waiting to see how events unfold between now and the next meeting.

CHAIRMAN GREENSPAN. President Moskow.

MR. MOSKOW. Mr. Chairman, based on our discussion today, the most serious concern is the inflation outlook for the year 2000. Our current policy stance is too expansionary relative to the acceleration in inflation projected in the Greenbook and in our outlook as well. I don't think it is important to shift policy now but if we accept these inflation forecasts, then it will be important to increase rates later this year. The key, of course, is whether we accept these forecasts, and we have had a lot of discussion about that. Given the fact that we have very low inflation rates now, I agree that we have

to see some indication of wage increases or price inflation or inflation in the pipeline before we would want to take some action. In this environment, it is important that we not become complacent about our current economic good fortune. But I agree with your recommendation on both counts--on maintaining the current funds rate objective and also the symmetric directive.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. I support your recommendation of "B" symmetric. I will elaborate very briefly by saying that if I were a betting man, given initial conditions, I would bet that our next move is more likely to be an increase in the federal funds rate than a decrease. But I don't have any conviction about its timing and I don't see anything significant to be gained by adopting an asymmetric directive now or by becoming more aggressive now. So I am comfortable with your recommendation. I would add, with regard to the actions we took last fall to reduce the funds rate, that nothing I have seen in subsequent developments has led me to believe that things have gone wrong in the wake of those actions. So I see no reason to want to undo them at this point.

CHAIRMAN GREENSPAN. President Guynn.

MR. GUYNN. Mr. Chairman, as is evident from my comments during the earlier go-around, I am a little less comfortable with waiting to have obvious inflation "in our faces," as the teenagers say, and I am perhaps at least a bit more inclined to support forward-looking and preemptive policymaking. Having said that, if I had a vote this year, I would support your recommendation today because I don't think the case for a move is compelling, or at least compelling enough. That said, I am going to continue to worry and try to weigh the consequences of erring on both sides of what will turn out after the fact to have been the optimal policy. I think there is a chance that we are underestimating the importance of good policy and the payback from the low inflation expectations that we have helped engender in this current policy environment. And I hope we will continue to stay extremely alert and be willing to revisit this issue if the need for tightening becomes more obvious. Thank you, Mr. Chairman.



CHAIRMAN GREENSPAN. Governor Gramlich.

MR. GRAMLICH. Thank you, Mr. Chairman. I support your recommendation for "B" symmetric. I am asymmetric in my head but, as long as there is the luxury of time, I think we can afford to move against an acceleration of inflation or super rapid economic growth when we see it. Otherwise, I don't think we should act because we are sure to be misinterpreted. While I do think we have the luxury of time, I will also say that it may be necessary to move sharply later, and we should recognize that as well.

CHAIRMAN GREENSPAN. President Minehan.

MS. MINEHAN. I agree with your position on policy, Mr. Chairman. I might be a little more comfortable with an asymmetric as opposed to a symmetric directive, but if I had a vote, I probably could live with a symmetric directive as well. For some time I have been concerned about what I referred to in my comments earlier as a party building up again, as it clearly was at this time last year. I think the stance of policy is contributing to that. I don't think we are seeing the party as much as we may ultimately see it in the real estate markets, but we certainly are seeing it in other asset markets. The price-earnings ratios may be appropriate because they do reflect expectations of a better return on capital going forward than we have had in the past, and that may have to do with major changes in productivity. I am a bit agnostic about all of that. But I think it is possible that we will have significant problems with our economy working itself up higher and higher without seeing signs of inflation, so that ultimately when conditions do change--either we tighten or something else happens--the fall may be a lot farther than we would otherwise experience. We saw that in Japan. We are not like Japan; a lot of things separate us, not the least of which is the health of the financial sector in our economy versus the Japanese situation. But I think there are some lessons to be learned from the Japanese experience.

Also, with regard to your comments about Kosovo, I think the rest of the world is looking to us for leadership. That leadership goes to our stance on the economy broadly speaking, with respect to financial markets as well as everything else. And in that regard I would opt, actually, for a more conservative rather than a less conservative

position, given what is going on in the rest of the world. So, as I said, I can live with your recommendation for now. I just hope we have our eye on the ball and don't wait until we see significant signs of inflation before we decide to move, because at that point it might well be too late.

CHAIRMAN GREENSPAN. Governor Ferguson.

MR. FERGUSON. Thank you, Mr. Chairman. I support both halves of your recommendation. I think we are struggling with an important issue: Do we act based on forecasts or do we, as Don Kohn said in his statement, look for evidence in the incoming data? In part the challenge is that since the forecasts have been inaccurate, we are forced to look more and more at the incoming data. As you indicate, the incoming data do not show even the earliest buildup of inflation. If they did, we should act. In some sense what we are trying to understand in this economy is: What is its maximum sustainable growth? We aren't really sure. So, since there is very little pressure on inflation now or in the pipeline, and since we haven't in any sense prepared the markets for a policy move in a way that would avoid an adverse market reaction--including a move to asymmetry which, if we made one, I think we should announce--I believe the more prudent action at this stage is to wait and see.

CHAIRMAN GREENSPAN. Governor Meyer.

MR. MEYER. Thank you, Mr. Chairman. I can support your recommendation for no change in the federal funds rate target today. In my view, however, monetary policy should be biased toward tightening going forward. Let me explain why and then confront the issue of whether or not a move to an asymmetric bias should be made and announced at this meeting.

I think there are three important considerations that relate to possible adjustments in monetary policy in the period ahead. First, there is the reassessment issue, which the Chairman articulated very clearly in his Humphrey-Hawkins testimony. That is, given what I see as an improvement in financial market conditions and given a significant upward revision in our forecast compared to what it was at the time we

implemented the recent easing, we need to reassess whether the full amount of that easing is still justified.

Second, and here is where I place most of my emphasis, there is the question of how policy should respond to developments going forward, specifically to changes in the unemployment rate and inflation. I suggested at the last meeting that we follow a strategy that I call an incremental asymmetric Taylor rule. This is a policy that is not forward-looking but reactive; it responds not only to changes in inflation, but also to changes in the unemployment rate. Following the strategy would entail raising the real federal funds rate in response to declines in the unemployment rate and to increases in inflation. Based on the staff forecast, following such a strategy would indeed result in an increase in the federal funds rate over the next year.

Third, there is the question of how monetary policy should respond if there is in fact an acceleration in productivity growth under way. This is an issue that the staff has addressed recently and that President Broaddus talked about today. I think the conclusion that we reached in that analysis is that such acceleration in productivity growth raises the equilibrium real interest rate of the economy and requires, in order to maintain an unchanged stance of monetary policy, an increase in the real federal funds rate.

Governor Kelley along with the Chairman made a persuasive case, nevertheless, for not changing the policy bias at this meeting given prevailing international tensions and the prospect that the first announcement of such a change in the tilt could produce a particularly large financial market response. So I can accept the Chairman's recommendation for continuing the symmetric posture under these circumstances with the understanding, as I'm sure we all agree, that this is no obstacle to changing policy going forward.

CHAIRMAN GREENSPAN. Governor Rivlin.

MS. RIVLIN. I also concur in your recommendation, Mr. Chairman. I don't see any evidence that inflation is a clear and present danger in the United States at the moment. I concur with Ed Boehne and others that what we really should be focused on is

maximizing sustainable growth. We don't know exactly what that is. And I am unconvinced that at the moment we are operating at a rate which is unsustainably high or that we will be in the near future. I see risks on both sides. I concur with your feeling that Kosovo introduces more uncertainty, although it is not clear which way the risks would cut. I also see plenty of time for action if we turn out to be wrong. So I would stay where we are.

CHAIRMAN GREENSPAN. President Jordan.

MR. JORDAN. Thank you, Mr. Chairman. I agree with what Bill McDonough said at the outset: It is highly likely that if we were to take a firming action today, it would be interpreted in view of the strong growth numbers as being antigrowth, and that would be very undesirable. It is also true, in view of the stock market finally closing above 10,000 yesterday, that a tightening step could easily be interpreted--unfortunately, and in my view wrongly--that we considered that undesirable and we reacted to it. What is troubling about that is that it leads to the implication that we have to wait until growth slows sharply and the stock market drops and then it will be safe to raise rates. [Laughter] I don't know how to get out of this box because, certainly, once the need for a move is obvious it is too late. It is easy for monetary policy steps to be taken when it is obvious to everybody that they are appropriate. I believe, however, that some of our greatest successes in the past have occurred when we were willing to take actions that were not, in fact, obvious to everybody.

If my memory is right, our May FOMC meeting will mark the second anniversary of our looking at domestic conditions and forecasts of the future, taking account of our concerns and the lags and saying: Well, we probably should move in an anticipatory or preemptive way, but there are certain external reasons for not doing so. Since then we have had a whole succession of reasons. Sometimes they have been compelling--for example, in the fall of 1997 and even last fall when the newsletters were full of stories about how the Asian crisis was going to bite us if we waited just a little longer.

We have had some discussions around this table in the past about the partial analysis of the negative impulses and the partial analysis of the positive impulses affecting the U.S. economy coming from events abroad. It is very difficult to net these factors out. But it is hard for me to imagine that the economy today in the United States would be even stronger had these events not happened. So it is easier to come to the conclusion that the netting would lead to the view that we have had more beneficial than adverse consequences, though certainly not every sector or industry would agree with that. But we cannot live on just-in-time crises around the world to sustain this economy. At some point the effects on our economy have to come from internal decisions.

I don't believe that recessions are caused by the economy running out of gas, with demand just drying up for lack of stimulus. Rather, I believe they are caused by the kinds of conditions that Japan created for itself: Dramatically expanding domestic industrial capacity far beyond the ability to absorb it internally and creating conditions in its financial sector that they have been trying to work off for a decade. If we get to a point where we have to have a protracted period of no growth or a contraction, it will be because we have overstimulated on the front end, not because we ran out of stimulus to demand.

CHAIRMAN GREENSPAN. Governor Kelley.

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

CHAIRMAN GREENSPAN. President McTeer.

MR. MCTEER. I support your recommendation and I agree with it in both respects. At our last meeting we voted for no change and a symmetric directive. As I indicated earlier, two months of statistics have come in since then. They continue to show employment growth, a low unemployment rate, very strong output growth, and contemporary measures of inflation that are flat, with no inflation in the pipeline. So I agree with Bill McDonough that if we were either to tighten or adopt an asymmetric directive toward tightening, we would be interpreted as being antigrowth and probably rightfully so. I don't think that is the way we should be perceived. So I agree with your recommendation.

CHAIRMAN GREENSPAN. President Hoenig.

MR. HOENIG. Mr. Chairman, understanding the difficulties of these decisions, I would still recommend that we tighten and that we present the tightening as an unwinding of the actions that we took in the midst of the crisis last fall. Last summer we were continuing to experience strong growth in economic activity and jobs. We took some easing actions because of the Asian crisis. We introduced additional stimulus into this economy, which is playing out now. I think we could legitimately and forthrightly explain a tightening move as an unwinding of those earlier actions; that would make it more acceptable. In the long term such an action would be healthy.

Having said that, I would make the directive symmetric if the Committee adopts a no-change policy, as it appears it might, because we probably will not act during the intermeeting period and I don't think we should suggest otherwise. So my preference is to unwind. However, if we don't, I would not have an asymmetric directive.

CHAIRMAN GREENSPAN. Thank you. The majority of the voting members appears to favor "B" symmetric. Could you read the directive, including the change that has been recommended in the general paragraphs?

MR. BERNARD. I will begin with that, Mr. Chairman. There is a change in the very first sentence of the general paragraphs. Basically, it involves dropping the words "has moderated." So the first sentence would read: "The information reviewed at this meeting suggests that the expansion in economic activity is still robust." Moving on to the operational paragraph, the draft language is shown on page 13 of the Bluebook. It would read: "To promote the Committee's long-run objectives of price stability and sustainable economic growth, the Committee in the immediate future seeks conditions in reserve markets consistent with maintaining the federal funds rate at an average of around 4¾ percent. In view of the evidence currently available, the Committee believes that prospective developments are equally likely to warrant an increase or a decrease in the federal funds rate operating objective during the intermeeting period."

CHAIRMAN GREENSPAN. Call the roll.

MR. BERNARD.

3/30/99

69

Chairman Greenspan	Yes
Vice Chairman McDonough	Yes
President Boehne	Yes
Governor Ferguson	Yes
Governor Gramlich	Yes
Governor Kelley	Yes
President McTeer	Yes
Governor Meyer	Yes
President Moskow	Yes
Governor Rivlin	Yes
President Stern	Yes

CHAIRMAN GREENSPAN. May 18 is the date of our next meeting. We will now adjourn for lunch.

END OF MEETING