

Meeting of the Federal Open Market Committee

November 1, 1988

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, November 1, 1988, at 9:00 a.m.

PRESENT: Mr. Greenspan, Chairman  
Mr. Corrigan, Vice Chairman  
Mr. Angell  
Mr. Black  
Mr. Forrestal  
Mr. Heller  
Mr. Hoskins  
Mr. Johnson  
Mr. Kelley  
Mr. LaWare  
Mr. Parry  
Ms. Seger

Messrs. Guffey, Keehn, Melzer, and Morris, Alternate Members of the Federal Open Market Committee

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

Mr. Kohn, Secretary and Economist  
Mr. Bernard, Assistant Secretary  
Mr. Bradfield, General Counsel  
Mr. Patrikis, Deputy General Counsel  
Mr. Prell, Economist  
Mr. Truman, Economist

Messrs. Broaddus, J. Davis, R. Davis,  
Siegman, Simpson, and Ms. Tschinkel,  
Associate Economists

Mr. Sternlight, Manager for Domestic Operations,  
System Open Market Account  
Mr. Cross, Manager for Foreign Operations,  
System Open Market Account

Mr. Coyne, Assistant to the Board, Board of Governors  
Mr. Ettin, Deputy Director, Division of Research and  
Statistics, Board of Governors  
Mr. Promisel, Senior Associate Director, Division of  
International Finance, Board of Governors  
Ms. Zickler, Assistant Director, Division of Research  
and Statistics, Board of Governors  
Mr. Porter,<sup>1</sup> Assistant Director, Division of Monetary  
Affairs, Board of Governors  
Messrs. Hallman<sup>1</sup> and Small,<sup>1</sup> Economists, Division of  
Monetary Affairs  
Mr. Keleher, Assistant to Governor Johnson, Office of  
Board Members, Board of Governors  
Mr. Wajid, Assistant to Governor Heller, Office of  
Board Members, Board of Governors  
Mr. Gillum, Economist, Open Market Secretariat, Division  
of Monetary Affairs, Board of Governors  
Ms. Low, Open Market Secretariat Assistant, Division of  
Monetary Affairs, Board of Governors

Messrs. Balbach, T. Davis, Lang, Ms. Munnell,  
Messrs. Rolnick, Rosenblum, and Scheld, Senior Vice  
Presidents, Federal Reserve Banks of St. Louis,  
Kansas City, Philadelphia, Boston, Minneapolis,  
Dallas, and Chicago, respectively

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

Ms. Meulendyke, Manager, Open Market Operations,  
Federal Reserve Bank of New York

---

1. Attended portion of the meeting relating to long-run relationship  
between money and prices.

Transcript of Federal Open Market Committee Meeting  
of November 1, 1988

CHAIRMAN GREENSPAN. Good morning, everyone. Shall we start off by approving the minutes of the meeting of September 20th? Is there a motion?

VICE CHAIRMAN CORRIGAN. So move.

SPEAKER(?). Second.

CHAIRMAN GREENSPAN. Without objection. We have before us a proposal for a change to a calendar-year basis for terms of presidents as members of the Committee. You may remember that the Vice Chairman raised this issue a meeting or so earlier and we postponed it until this meeting. I thought it might be worthwhile to go over it at this time. Vice Chairman, would you like to repeat your proposal of that time?

VICE CHAIRMAN CORRIGAN. I think of the issue as quasi-housekeeping but with some substance. The point I raised, of course, was that under current arrangements the four rotating Reserve Bank presidents on the Committee who are responsible for the vote to establish the targets for each calendar year at the February meeting rotate off the Committee a couple of weeks later. It seemed to me that as a matter of good procedure there was something to be said for changing those dates so that the four rotating Reserve Bank presidents who vote for the annual targets remain on the Committee throughout the calendar year [to which those targets apply]. The Committee's General Counsel [Mr. Bradfield] has advised that he thinks that such a change can be made within the framework of the statute, and it seems to me, Mr. Chairman, that simply as a quasi-housekeeping matter--or to put it differently, a matter of good procedure--that there is some logic to trying to structure things to have that consistency over the calendar year and with the establishment of the annual targets.

CHAIRMAN GREENSPAN. You stipulated at the time, if I remember, that the members who vote for the ranges should be responsible for implementing them.

VICE CHAIRMAN CORRIGAN. Well, that is the argument.

CHAIRMAN GREENSPAN. I think it can be stated a bit more firmly in the sense that you can't really ask individuals to implement a policy with which they are in disagreement. So, it's a little more than strictly to simplify the structure. It's an eminently sensible motion, and I am wondering what other members of the Committee have to say on this issue.

MR. BOEHNE. I don't think this is a very important issue, so what I'm about to say should be kept in that context. I don't think it makes much difference one way or the other. I think the reasons that have just been expressed are logical and have some merit. But the argument on the other side is that permanent members constitute two-thirds of the FOMC. I've always thought of the FOMC as a continuing body. The press tends to make an issue, whenever we have this rotation, that the Committee is going to change or is not going

to change, but it seems to me it really has not. Our deliberations have tended to be collegial, and there has been something permanent about the monetary policy of the Federal Reserve. If you have a change from the Philadelphia District to the Richmond District on the FOMC, that in itself should not lead to expectations that there might be a significant change in policy. There is more stability to the Federal Reserve than that, and even though not all of us vote, we do all participate in these decisions. While the vote is clearly important and of legal significance, it has always seemed to me that the collegial spirit of the discussion has been more important, and 99.999 percent of the meetings that I've ever been a part of [have been of this nature]. I think this kind of change tends to emphasize the individual members of the Committee over the Committee as a whole, and the System as a whole, and the collegial spirit. While I don't think this is a very big issue, on the whole I would prefer not to make a change.

MR. FORRESTAL. Mr. Chairman, Ed Boehne has expressed my views very, very well. I would put it perhaps just a little differently. It seems to me that the actions on the Humphrey-Hawkins targets are basically actions of the Committee itself, and the change in rotation shouldn't affect the ability of the Committee to carry out the targets. I think that the voting members who come on after March 1st are in a sense obliged, really, to accept and to enforce if you will the targets that have been established by the Committee. But, like Ed, I don't think that this is a very big issue. Were it the will of the Committee, I certainly wouldn't object. I say that as one who would be affected by the change in the sense that my term would end ordinarily on March 1st. As I understand it, if we adopt this change, my term would end earlier, but it's not all that significant as far as I'm concerned. On the legal issue, our counsel also looked at it and agreed with the views expressed by Mr. Bradfield.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. I support the change for two reasons. One, I came on at the time when targets had already been established, and while I didn't have major disagreements with the targets I feel that I [didn't have] much influence over them. Now, that's a small point. The larger point is one to which you alluded. There's a sense of accountability that gets attached to the targets when you do it. I think people will feel more responsible, and the public will have a much better record [by which] to measure people and their performance. So, there's some accountability with this proposed change that I would support.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I want to make a different point, because I don't know how presidents feel, not being a president. But I can tell you, if this were done right now, the media would pick this up and say the Governors are trying to get rid of Bob Forrestal because he's a "meanie" from Atlanta. And we're changing this arrangement to get rid of certain people. I can just see it.

MR. BOEHNE. It's true, too!

MS. SEGER. I didn't say whether that was true or not.

MR. BLACK. I think you take it the wrong way. It's the other three of us!

MS. SEGER. Seriously, the media would just love to pick up this us-versus-them routine, and while I haven't seen the us-versus-them at work [on the Committee], this would be something else that they would seize on--on top of whatever other considerations there might be. So I'm sure you can't keep this quiet.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. I think Ed and Bob make a very good point, but nonetheless I come down in favor of the change. I wasn't aware of the background of the March 1st vote until I read the memorandum. I always thought it was a very awkward date coming in the middle of the Humphrey-Hawkins testimony. I just feel there's a little bit of confusion there for the reasons that we've said: namely, that by setting the ranges we have some accountability for them. I think for the rotation to be on that basis, it will be a cleaner way to do it, and I'd be in favor of the change.

MR. PARRY. I support the change as well. If the change were announced, say, at the end of the year and the reasons explained, I don't think there would be much press pressure to it. The other thing is that it probably would be wise to emphasize one of the points that Ed has made--that the FOMC is a continuing body. But it does make some sense. If we were starting off today having no precedent, we clearly would probably opt for something more like what you are proposing than what we have. So I would support it.

CHAIRMAN GREENSPAN. That I am sure is correct. President Guffey.

MR. GUFFEY. I, Mr. Chairman, would also support the change on the basis of the continuity and accountability issues already discussed.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. I would favor it as well. I don't have anything to add to the comments that have been made.

CHAIRMAN GREENSPAN. Anybody else who's got views on this? Let me say that this is not something that we should bring to a vote and get a count. Unless we are unanimous, I don't see how we can move forward on this in an appropriate fashion. So I really want to put it to those who feel uncomfortable with it: Is your degree of discomfort at a level where you think it is inappropriate for us to do this? Or is it marginal? I do think that unless we do it by acclamation, it's an inappropriate action to be taking at this stage.

MR. FORRESTAL. Well, I certainly would not object, Mr. Chairman. I just wanted to make the point, as Ed did, that this is a continuing body. We need to stress the collegial atmosphere of this group and the fact that actions taken are actions taken by the Committee. But I have no objection and I would certainly join--

CHAIRMAN GREENSPAN. Suppose that in the public statement made with respect to this that that particular point is emphasized.

MR. FORRESTAL. I would agree to that.

CHAIRMAN GREENSPAN. Would that solve your problem?

MR. FORRESTAL. Sure.

MR. BOEHNE. Looking at me?

CHAIRMAN GREENSPAN. Yes.

MR. BOEHNE. Well, I have a higher level of discomfort for the change. If it comes down to 18 people around the table who want to do it, I'm not going to stand in the way. But if I were going to do it, I would not make it effective at the end of this year. I would do it down the road, to get away from the point that Martha makes. There is, unfortunately, this business in the press about presidents versus governors--which is a lot of nonsense, but it's there. In that context--that's not my main reason--but I think that it is supportive to my concern. If I were going to do it, I would make it effective a year from now, or something, just to get away from any immediate concern about policy.

VICE CHAIRMAN CORRIGAN. There is a way you can do that, of course, and that is make it effective a year from now and just mention it almost in passing in your testimony in February that beginning next year we're going to have this procedural change. I don't think it matters all that much in terms of--

MR. BOEHNE. The other thing is, if we made it effective this year, we'd have to go back to all of our Boards of Directors and get them to change those resolutions of elections because I think it says in there that the terms run from March 1st to February 28th, or whatever it is. It might be better to do it on a pro forma basis rather than go back and change the terms that are already in existence.

CHAIRMAN GREENSPAN. That strikes me as not a bad way to come at this. Would you amend your resolution to do that?

VICE CHAIRMAN CORRIGAN. Sure.

CHAIRMAN GREENSPAN. If there are no objections then, I would presume it's the will of this Committee that the change occur not on January 1st, 1989, but on January 1st, 1990, and without objection I will assume that that is the will of the Committee.

MR. ANGELL. So, in effect, we're making this new term beginning next March run until December 31.

VICE CHAIRMAN CORRIGAN. Right.

CHAIRMAN GREENSPAN. That is correct, yes.

MR. ANGELL. Which seems to me is the appropriate way to do it.

MR. BERNARD. What the Committee is doing is amending its Rules of Organization.

CHAIRMAN GREENSPAN. In effect, yes. The next item on the agenda is an interesting analytical work which will be evaluated by Richard Porter and later by Don Kohn who wants to, as usual, have the last say on this issue.

MR. PORTER. [Statement--see Appendix.]

MR. KOHN. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Any questions for Messrs. Porter and Kohn?

MR. HOSKINS. I don't have a question, I have a comment. I commend the staff on the research. It is cast in very familiar terms for me, and therefore I'm quite comfortable with it. I see lots of P's, Q's, and M's, and V's. I think it couches the debate, or the analysis, in the appropriate form for the long term, which is price stability. If we simply look at our long-term targets that we internally set for next year, 3 to 7 percent, we can be at zero percent inflation with this approach by 1993 by moving targets down by one percentage point each year. To make the test a little better, you took a look at actual M2?

MR. PORTER. True.

MR. KOHN. Yes.

MR. HOSKINS. And the forecast didn't have that. So what you tried to do is to make the test a little clearer. You used the midpoints of the target range, since that's the information the Committee had at the time, and it hardly did any damage to your results. The root mean square goes up because of 1987.

MR. PARRY. I have a question about the approach. It's a single-equation approach, and there is an assumption therefore that money is exogenous. Yet, we know that throughout this period for which you got your statistical results that at times money was endogenous--that you were reacting to what was happening to prices. It seems to me that that is a point which has some bearing on the usefulness [of these results]. The second point is that for some of these [periods] velocity is more stable. If you look at Chart II, it looks to me that if you were at different points of history, you might have concluded as you drew a line most recently that you were going off the long-run velocity line. We know that potential real GNP changes over time. I don't know how much that would lead us astray, but it seems to me that assumptions about both of those being unchanged over time are potentially dangerous with respect to--

MR. PORTER. Well, it is true that M2 has an endogenous component over time. It is strictly one equation, but one period ahead forecasts are okay with a lag. So, clearly, over some period of time the FOMC could potentially control M2 to a pretty good approximation.

MR. PARRY. Sure.

MR. PORTER. And if this equation seems to have worked in a variety of periods--I guess that's what President Hoskins said--maybe the approach would work in other situations. But that is a weakness of the approach and you're--

CHAIRMAN GREENSPAN. Can I propose that the endogeneity is a short-term issue if one can demonstrate--and indeed the data do demonstrate--that carrying these out another 50 years that in fact M2 velocity is trendless or without any really perceptible change [in trend]. Once you have stipulated that, the endogeneity problem disappears over the long run because clearly the trend of velocity can not be a function of anything other than structural aspects of the financial system over the long run. If that's the case, then the issue of the two-year or three-year or five-year projections ceases to have that mathematical property. While I certainly would agree that in the short run there is a great deal of endogeneity in it, I would suspect that that property decays very rapidly and probably is even insignificant over two- and three-year horizons.

MR. KOHN. We ought to be clear in response to President Parry's second question that when the staff made those one-, two-, or three-year ahead projections, we assumed we didn't know anything about velocity except what had occurred up to that time. So all those projections were made with the average velocity up to that period; and implicitly it was assumed that velocity would remain stable. But it turns out that the projections are pretty good--amazingly good in my view--on that assumption that the dynamics of the model apparently capture some of the changes in velocity. The question really is, if we [unintelligible] the so-called Lucas critique and started targeting  $P^*$ , would people change their behavior? If I can reinterpret the Chairman's point, if we can show the behavior hasn't changed over many different monetary policy regimes stretching back into the early part of the 20th century, it is probably a pretty good bet that something pretty fundamental is going on there. You could change the regime without changing something fundamental in the way people handle their liquid assets.

MR. PARRY. What about potential real GNP? That can change for other reasons, and it does change for reasons that sometimes are very difficult to anticipate.

MR. KOHN. Right. We did estimates using various ways of looking at that. Most of the results are in the Board [staff study].

MR. PARRY. I see.

MR. KOHN. When we have used other measures of potential GNP,  $P^*$  is not that sensitive to that unless those changes are much larger than the kinds of changes that we have experienced in the past.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I just have a question; I hope it's a fair one. What if you had done this project 40 years ago, and ran it and established your equations, and so forth, would that have given us good guidance going forward?



MR. KOHN. The only way I can answer that is to refer you to Exhibit 5, because this exhibit in effect reports on the experiment you just proposed. That is, suppose the equation was fitted up to a certain point, say 1980, and then projected, and then '81 is a slightly [unintelligible].

MR. PORTER. This chart here fits up to the end of one year, and then forecasts it three years on the bottom.

MR. KOHN. Right. So that this [unintelligible].

MS. SEGER. So this relationship would pick that up? Because often I see econometric models that cheat. They have the advantage of what has happened, and they go back and say, well, this really would have worked. Whereas in fact if you had done it earlier, it wouldn't have worked. But this doesn't--

MR. PORTER. This isn't subject to that other than the fact that these forecasts do embody the M2 revisions made after the period. But other than that, those estimates of real GNP might have been slightly different at the time but that varies, and possibly there's nothing there at all. I think that would be very slight. Otherwise, the parameters and the assumptions about what long-run velocity was could have been known at the time.

MS. SEGER. Thank you.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. Just a follow-up comment on the comments you made in that I have a concern about it and that is we haven't really formally and aggressively targeted M2 so that the market believed it. In that sense, over time you can say we had lots of different structural regimes and all that, but we never tested Goodhart's law. We never said this is what we're going to do, and I have concerns that once we tell the market that this is what we're going to do, would M2 function as it has in the past? That's a concern I have.

MR. JOHNSON. What he means is, if you take it out far enough, you could probably wash all that out. But the point I'm just making about this is that some people think it is a shorter period of time to [get full] adjustment and smoothness, but I have to think that in the short run it could be a very, very tumultuous situation. This is very good in terms of the long-run picture, but in the long run, we're all dead.

CHAIRMAN GREENSPAN. Well, Lee, I think the issue you are raising does wash out over a three-year horizon, because so long as it's a type of trend like the one we are going through now--I mean, are we targeting M2? In a certain sense, we are or we are not, depending on how rigidly--

MR. HOSKINS. I agree.

CHAIRMAN GREENSPAN. The question of rigidity.

MR. HOSKINS. But if the markets see something in our directive, six variables that we're looking at, one of which happens

to be M2 and which we're not as aggressively targeting as we perhaps targeted the Ms in the early '80s, would we get the same result over time? I don't know the answer. If we move forward with four or five things that we have listed in the directive as important to us, the market would say that M2 is one of them. And you may not get that effect, but I have no way of knowing.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. Well, it seems to me that this approach, in contrast to what I will call a naive monetarist model, does say something that is both very intuitive and very important. What it says is that some given M2 target has different inflationary implications depending upon the amount of slack in the economy, and that is both important and intuitive. What's good about this is that it does confirm that intuitive notion in a fairly robust way, to use your term. In that sense, it has a great deal of appeal, and it also says something I think rather compelling about what's wrong with the naive monetarist perception of things. Now having said that, I guess my judgment as to its utility in a policy context is somewhere along the following lines: I would not be willing to go so far as to adopt what I think you're calling a rigid M2 targeting approach simply on the basis of what we see here. On the other hand, I do think that it can be useful to the Committee internally in terms of trying to frame our thinking more systematically as to what might constitute reasonable targets over time. In that sense, it has some real utility because I'm not ready to jump on the M2 bandwagon to the exclusion of everything else, which will come as no surprise to you.

CHAIRMAN GREENSPAN. It will come as no surprise to you that I agree with what you just said about [unintelligible] explanation. Governor Angell.

MR. ANGELL. Well, I'm delighted of course to see this impetus to the monetary aggregates because certainly I think all of us have known that our job in regard to long-run price stability has to be related to what we do in regard to facilitating money and avoiding getting too much money in the system. The record of this year is of having M2 clearly appear to be running against our upper limits in the first quarter and our taking offsetting actions, and it seems to me that that was indeed appropriate. We now have M2 below 5 percent on an annual growth rate basis over a 24-month period for the first time, I think, since 1962. And it seems to me that this does bolster that [unintelligible] and that view. I would caution, however, that what I think Manley Johnson has been suggesting in regard to the short run, and that is if we make short-run mistakes and get the economy in a severe recession the problem with that is that you end up then not behaving well in regard to monetary aggregates. So, I think this is indeed a very extraordinary development which bolsters those of us who want to see M2 raised [in importance]. We just need one more step and that is to be sure to use commodity prices as some signal as to when to tighten the screws.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Well, Mr. Chairman, I guess like you are not surprised by what Jerry Corrigan said, you probably won't be surprised by what I say either. I like this paper very much because I think it

has very important implications about how we ought to conduct our long-run policy. The main thing the evidence says to me is the same thing I think it said to all of you--namely, that we can control prices over the long run by controlling M2. It also suggests that there has not been in the last 30 years or so enough of a permanent shift in demand for money that that would have been troublesome. Now, of course, it does point out that we might have shifts in money over time for which we'd have to allow, but I don't think that really negates the basic conclusion that we can control the price level over the long run while targeting the M2. The idea of controlling inflation in this manner obviously is not a new one, but the evidence given in this paper I think makes it pretty dramatic and gives it added support.

I think all of this really raises some fundamental questions about our current long-run strategy. Obtaining long-run price stability is clearly one of the preeminent goals of monetary policy; I would say it is the goal of monetary policy. We frequently state this in our public statements, and yet there's nothing really in our current set of procedures that ensures that we are really going to target M2 or any other aggregate over the long run. It's true that we announce that we have targets for these aggregates, but we don't hit those targets a lot of time. And we allow base drift to come in, and so there's no assurance in our present procedures that M2 is going to grow at a rate that will be compatible over the long run with price stability--over 2, 3, 4, 5 years, or whatever you want to target on. I've been dissatisfied with this procedure for a long time, and I think there are some other members who have been somewhat uncomfortable with it, too. The staff paper provides impressive evidence that we really can control price stability in the long run by controlling M2, if we just change our procedures to ensure that we keep our long-run M2 [unintelligible]. And I'd like to make one further observation about section 6 of the staff paper which explores the long-run dynamic characteristics of the price gap equation. The analysis in this section suggests that if we fix the M2 growth at a constant rate, the price level [fluctuation] would remain pretty wide around the equilibrium level for many years before stabilizing the--

MR. JOHNSON. 100 years.

MR. BLACK. Yes, that's right! And this is very discouraging more so to me than to you, Manley, because I'm an old man. I'm going to be on a fixed income in four years. We have to wait until our grandchildren to see this price stability.

MR. JOHNSON. Our great grandchildren!

MR. BLACK. Yes, our great grandchildren. I haven't even gotten my first grandchild yet, but do have one coming in January in case any of you are interested! I think it needs to be emphasized that this particular analysis deals only with the special case where there is a stable rate of growth in the money supply. I think it's reasonable to suppose that we could have some kind of reactive mechanism that would bring this under better control and damp these oscillations. We had one of a sort when we were targeting nonborrowed reserves. If there was an overshoot in the aggregates [under that sort of targeting] we made the banks borrow half of that overshoot. And that was an automatic mechanism. There are others that obviously

could be used. I would also draw the opposite conclusion from the Lucas critique on this and say that intuitively I think if you had a stable rate of growth in money supply over this 30 years, that you would not have changed the structure of the models. So, if you targeted a stable rate of growth after that you would have had less in the way of oscillations this produced because these are two very different regimes and that is the issue to which I think the Lucas critique was addressed. I've said too much, Mr. Chairman, but I surely like what the staff is doing. I would not go quite so far as one of my colleagues and say the first eight pages represent the best work the staff has ever done because I think it has done a lot of other awfully good work, too.

MR. HOSKINS. Should we suggest a name for your grandchild? M2 or Base?

MR. BLACK. There's a problem with that!

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Well, like many, I guess I found this to be a valuable and stimulating paper. In a way it formalizes a bit some of the back of the envelope kinds of calculations that a lot of us go through from time to time. But a reservation that I do have about it all is that this is a rather specialized model with lots of special restrictions in it at least implicitly. If one runs some more general models and tries to identify a significant impact of M2 on prices, it can be very, very hard to find that. And so I'm a little at a loss at this stage to know exactly what to make of these results in a policy sense or in a more general sense. I have some sympathy with them and I would like to think that M2 is important and significant and can be a valuable guide; but I must say I think we may have here only the tip of the iceberg as far as some of the evidence that we ought to be considering is concerned.

CHAIRMAN GREENSPAN. But there is a simple relationship here which is algebraically necessary once you stipulate that velocity is trendless. If velocity is trendless, then it is an algebraic necessity that the price level be proportional to unit money supply. And that's a [link] which can only be broken if we can argue that velocity has no constancy to it. All the rest of this is just interesting additions, but the essential tie between prices and M2 is defined by that relationship. If the remarkably stable trend in M2 velocity since the turn of the century, and maybe earlier, is an accident, then I think one can argue that the relationship between M2 and the price level is an accident. But if you can't argue that, you're required to stipulate that unit money supply is governing the level of prices over the longer run.

MR. STERN. Yes, I would accept that as far as the longer run is concerned.

CHAIRMAN GREENSPAN. But I don't think much more is being made of this. It's very interesting that the R squares rise significantly as they do over the long run because in most models it's in exactly the reverse order. President Morris.

MR. MORRIS. Well, Mr. Chairman, most things have already been said, and I certainly agree and I think most economists agree that in the long run the price level is a function of the long-run rate of growth in the money supply. I think for that reason it would be useful every six months for this Committee to take another look at the last chart [in the staff study]. On the other hand, if you look at chart 2, exhibit 2, you see that in the third month M2 velocity is extremely unfavorable and therefore we've got to think in terms of the long-run trend of M2 while at the same time recognizing that any rigid targeting of M2 is not going to produce a desirable outcome with respect to nominal GNP. So, I think it has a value but not a value in setting monetary policy in the short run.

CHAIRMAN GREENSPAN. I think the real value [occurs] when we get to a position where policy has to be eased and we want to induce as a consequence an acceleration [in the growth] of the monetary aggregates. If we had out there what a noninflationary level of M2 should be, say, three years out, I think it would give us a little better insight as to what our M2 range should be in a period of ease. In other words, when do we get into dangerous levels [of inflation] where the degree of retrenchment to get back to a stationary noninflationary environment [is substantial, we can better gauge] what would be the consequences of various different types of policies we [might] implement at that time.

MR. MORRIS. I just wonder, though, whether it's safe to say in retrospect, [given] the very large rate of growth in M2 since 1986, that a much tighter policy would have been desirable in 1986. I don't have that sense. I think that in certain contexts that may well be true, but it seems to me that this exhibit 2 dominates, and I'd hate to see us think if we had had a slow rate of growth in M2 for a couple of years that this would give us the feeling that we can be a little looser now because we don't have to worry about inflation in 1989. I think that would be a completely wrong--

MR. ANGELL. But, Frank, the model doesn't say that.

MR. MORRIS. I know, I know.

MR. ANGELL. The model says the gap is still the other way.

MR. MORRIS. I'm just saying that it's very tough to tighten monetary policy, and I wonder whether just occasionally the model may not give us a rationale for not doing what we ought to be doing; that's the only concern I have. Two years of slow M2 growth I think should not under this set of conditions lead us to conclude that we need to be a little less alert to inflation than we otherwise would be; I think that would be a wrong conclusion. I'm not saying you are drawing that [conclusion], but I think there's a danger in being tougher. I remember back in 1975 we had this slow rate of growth of M1 and this was the [period when] monetarism was [gaining prominence]; the broader aggregates were growing very rapidly; M1 was not. And this Committee took a little comfort from the fact that M1 was growing fairly modestly and that comfort turned out to be costly. So I just wonder whether in the short run such a model might lead us as much to error as to success.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. The example you cited about how [the model may] be useful in the long run really depends upon the actual coefficients that are estimated. In effect, that's how you determine at what rate M2 should grow to get the growth and prices that you find acceptable. The only point I was trying to make--I think this is a correct statistical point--is that to the extent that money is not exogenous, those statistical results can be biased. I don't know if that is a major factor. I don't think you ought to assume that those coefficients are unbiased coefficients because the model starts out with an assumption of the exogeneity which is not there. This may not be a big factor, but I think it is a factor.

MR. KOHN. All the coefficients do is give you the dynamic path by which you reach the long-run [unintelligible].

MR. PARRY. Yes.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. I had a question that I guess would follow what Gary Stern was saying. Some of the work done prior to the early 1980's would have indicated greater explanatory powers in some of the narrower aggregates. I gather they are not candidates for this type of approach because of the instability in their velocity over time. Is that the assumption?

MR. KOHN. Well, that's what made M2 attractive from this perspective. In theory there's no reason why you couldn't specify a long-run path for M1 velocity and feed that into the model in terms of its long-run path. I think it [would have] been more effective [before] deregulation. It's not clear to me that M2 hasn't, but M1 certainly has, and that path is certainly not flat. So it loses this with the simplicity or elegance perhaps of this model. But in theory if you knew the long-run path for M1 velocity, there is no reason why you couldn't put that in for  $P^*$  over time.

MR. PORTER. We ran the base and M1 and we didn't get the kind of result that they got with that model.

MR. MELZER. Yes.

CHAIRMAN GREENSPAN. Any further questions or comments on this before we go further? If not, I'll call on Mr. Cross. Thank you very much, Mr. Porter.

MR. CROSS. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for Mr. Cross?

MR. HELLER. Can I make a comment?

CHAIRMAN GREENSPAN. Sure.

MR. HELLER. You know the dollar is falling, and it's now [blamed] on the weak U.S. economy. Late last year, the dollar was falling and it was blamed on the strong U.S. economy because it meant that more imports were being sucked into the country and therefore the

dollar had to go down. I'm getting a little confused, not by what Mr. Cross was saying but by the way the world is reacting. One day undoubtedly the dollar will be falling, and we will be called upon to tighten policy which undoubtedly will send the economy a little bit further down, and presumably the dollar will go up.

MR. BLACK. But not necessarily.

MR. CROSS. I don't think the expectation in the market is that the economy is very weak. I think that they had been expecting and thinking that it was growing a lot more robustly and that that was going to lead to higher interest rates and was yielding some upward pressure on the dollar. That was the prevailing attitude in which the various statistical releases [came out] all suggesting that the growth is not so robust. And so they are reassessing that.

MR. HELLER. It's probably the differential between the two larger--

MR. CROSS. Different things prevail in these markets at different times, but that seems to be a very important factor.

MR. HELLER. Probably it's the differential between the two that counts, right?

MR. CROSS. That's right, as much of this is based on what they had been expecting.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. My concern is not a new one to this Committee, but I think it has been portrayed rather well in this last month. We have been in on both sides of the market which gives an impression that we know what the right exchange rate is. I don't feel comfortable that I know what the right exchange rate is, and I'm not sure anyone around this table does. If Peter Sternlight were to go in on both sides of the market we might have trouble with that, although he does that on occasion when we ask him to. I think we run the risk of setting up the public and ourselves for a nice fall in the dollar simply based on expectations. If the belief is we're going to stabilize the dollar until the election is over with and [unintelligible] tell you about market reaction after the election. My concern is broader than just that particular issue. It's that by doing this I think we continue to confuse the public as to what our policy is all about and divert attention from our long-term objective of stable prices. And secondly, I think we run the risk of confusing ourselves as to our abilities to influence exchange rates in an inappropriate fashion.

MR. CROSS. Well, as you know, we've been trying to introduce some stability, and I think it's understandable in a period when the dollar is falling about 10 percent that we could be on both sides of [the market with] that sort of exchange rate movements. It's not surprising in a number of European countries [to see intervention on] opposite sides of the exchange markets within a matter of [unintelligible]. We attempt this, it seems to me, not to try to say with a great degree of precision what is the right exchange rate but to say that we are trying to introduce a greater measure of stability.

I think if you look back over the period since the Louvre Accord, there has been somewhat more stability in these exchange rates. And it is of some value, some importance, when you think of the problems that arise if, for example, the dollar should start to fall very rapidly against the yen and trigger responses by all of the present holders of the dollars to try to protect themselves. We have to walk this narrow line between trying to encourage a certain degree of stability and to keep the financing for this deficit occurring until we can move further toward other financing. It seems to me that's the basic policy.

MR. TRUMAN. I think the international understandings-- whether the authorities will consider intervention--in fact are part of the framework for international economic cooperation that is designed to deal with common international problems. And there is a considerable [range of] views about how large those problems are and what the price [unintelligible] to be and how effective some various [approaches] are in doing so. But as the major industrial countries [unintelligible] of the growth-driven process try to deal with large imbalances [unintelligible] this process of intervention that we've been involved in will be as noticed as [unintelligible] to the exchange rates over the various parts of that. But the price to this Committee seems to be the more risky case in saying you don't know better, or if you don't know then you can't concentrate or think about it, is the risk that comes along with the accusations of [benign neglect] about U.S. policy in the past. And you're just watchful. In fact, you'd probably argue that if we are going to solve our financial problems, we're going to have to do so on our own.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I just want to make sure I heard you right. This is the first time I believe I've heard the election introduced into this analysis of what's going on.

MR. CROSS. Well, not really. I think I said earlier that as we moved up toward the election there has been a feeling on the part of a lot of people in the market that the authorities would be particularly careful not to let exchange rates change very wildly, and they succeeded in doing that.

MS. SEGER. But I haven't heard us discuss that here in terms of what, in fact, it would be.

MR. CROSS. All I'm suggesting is that that is what is in the market.

MS. SEGER. Okay.

CHAIRMAN GREENSPAN. That's not our fault.

MR. CROSS. I'm a reporter.

MS. SEGER. Yes, but I'm just saying that this is the first time I've heard this even.

MR. CROSS. It certainly has been a factor in the foreign exchange market for some time.



VICE CHAIRMAN CORRIGAN. It works.

MS. SEGER. That they expect some tremendous change after the November.

VICE CHAIRMAN CORRIGAN. Well, it's not so much necessarily that they expect a change after November 8th.

MS. SEGER. Well, that's the day of the election.

VICE CHAIRMAN CORRIGAN. But I do think that there has been a large gut feeling in the market for months that authorities would go to rather extraordinary lengths to prevent the dollar from falling on its face.

MS. SEGER. Thank you.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. I was just going to make a comment on what Governor Heller said earlier. It's interesting that last year we had the weakness in the dollar, and it appears we had a strong economic situation, stronger than some people saw at the time. I think that led to feelings that the trade deficit wasn't going to improve-- imports were going to be strong--and that policy was going to be geared toward further dollar depreciation to the point of protectionist pressures. So, there was a definite fear, I think, in the market of an orchestrated decline in the dollar and that tended to feed on itself. But this year we have seen something different. The deficit has improved, and the dollar started turning about the time we started seeing trade improvement. And it has improved consistently up to recently. On top of that were the expectations of rising interest rates because the economy remained strong and everybody anticipated a tightening monetary policy action. Now, you've got a bit of a different perception. I think the markets see the economy as not as strong as expected earlier and believe that rates may not have to go as high as anticipated earlier and that's taking the pressures off the exchange market. And I think they've seen some slowing in the trade improvement. It may be just an aberration, but all of that I think is sort of leading up to a weaker trend in the dollar. I don't know where that takes you exactly, but that is how I would characterize the way things have developed.

MR. CROSS. You know, a stronger economy or a weaker economy can lead to all kinds of other things which sometimes lead to strengthening and sometimes to weakness.

MR. JOHNSON. There may be some of that [unintelligible] feeling, but there also was a strong feeling that aside from that we'd do anything necessary, or the perception was that we want to maintain dollar stability. It also was a perception that the central bank might be a source of the political cycle, too. I don't know how you weigh those two out. And they could balance each other.

MR. HELLER. I think the only thing I meant to say was that we shouldn't overdo it. It's all that Mr. Cross and Mr. Truman were saying earlier also in response to Lee Hoskins. I really agree with the way you present the case. We shouldn't overdo it as far as the

strength of the economy and the dollar are concerned. And I think one very important factor in the current dollar slide clearly was the disappointing trade numbers released a month ago. I'm not sure whether the slide started on that day or roughly a week or--. I think it started a day or two earlier because there were some reports that the numbers were going to be bad.

MR. JOHNSON. Well, I think it's a combination of the perception of things; they're all intertwined, with the perceived relatively weaker situation in the economy and the trade numbers are all tied up together. Although it's hard for me to--. What do the models show when you have a relatively weaker economic situation? I thought you'd get more on the import side than you'd lose on the export side.

MR. TRUMAN. You do, but both arguments are indivisible, when put that way in terms of economics. It is true that if the economy is weaker, interest rates go down or may go down and lower the attractiveness of the dollar. But it also is true that if the economy is weaker, then the economy can absorb more aggregate demand [stemming from a] depreciation. So if it were economists who were trading [in the exchange markets], let me put it that way, then [unintelligible] and it may not even be convincing or have anything to do with what we're doing. But at the same time, it would tend to be a motivating force in correcting the trade balance.

CHAIRMAN GREENSPAN. President Morris.

MR. MORRIS. Mr. Chairman, I expected the decline in the dollar after the [unintelligible] Treasury issued in the past three months which suggested the improvement in our trade position was fizzling out. We've really been stagnating with respect to any improvement in our trade position in the last three months. Furthermore, we've had an exchange rate in the third quarter which produced a net decline in import prices. Even if you take out the decline in oil prices you have a decline in import prices. Now, I don't see how we're going to make much further progress on the trade deficit unless we have a further decline in the dollar. I think we should intervene to make sure that it's an orderly decline. But it seems to me the evidence is pretty strong that with exchange rates at their third-quarter level we are not going to make much progress in reducing the trade deficit.

MR. JOHNSON. How does that fit into your view about inflation?

MR. MORRIS. It accentuates it. That's one of the reasons why I have to classify the staff inflation forecast as the best possible scenario. I think the inflation rate in 1989 has got to be higher, but I was going to talk about that later.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Sam, given the dollar-yen pressure we're experiencing and [unintelligible], are there any changes in the attitudes of the Japanese [investors] over the dollar as an overall issue?

MR. CROSS. Well, as the dollar has tended to slide against the yen, we've been hearing more reports of hedging. As they get less confident they tend to hedge more; that's the form it takes, but it has the same exchange rate effect.

VICE CHAIRMAN CORRIGAN. But also there are comments you get from [unintelligible] that suggest that at least in the market there has been a somewhat marked shift in diversifying assets without [unintelligible] at this point.

MR. CROSS. We get reports on this. And certainly during some periods this year when the exchange rates appeared to be relatively safe and stable, there was a tendency to shift into the high interest rate currencies by Japanese investors--into the Australian, Canadian, sterling currencies--

MR. MORRIS. I was talking with a visitor from about countries diversifying their reserve assets, and he said that keeps asking why they keep all their reserves in dollars. So we are beginning to hear the kinds of things we heard in 1978-1979.

VICE CHAIRMAN CORRIGAN. It's precisely for those reasons that you've got a mess in these circumstances and huge balances out there that have got to be financed. [Unintelligible.]

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. Sam, I wanted to try to get an idea. You mentioned the negative sentiment. Is that backed up at this point by large speculation or not? In other words, I would think if there is this expectation out there that you've described about trying to hold things stable until the election that shorts would be covered rather quickly and we could be in the situation where despite the decline we've had, or maybe because of it, that there is not a big short bid in the market. Do you have any sense of that?

MR. CROSS. It's very hard to be very precise. You hear what one person says; then you hear three other people. But certainly there is this prevailing concern that as we look forward a few months there are those big problems, and we are going to have a new Administration. That in itself brings a little uncertainty to the situation. Are they going to be able to and will they take actions to deal with these problems? So as you look ahead a few months this is very much on their minds.

MR. MELZER. So there's a good deal of short-term vulnerability?

MR. CROSS. I assume that they are acting on the basis of that concern. But it's hard to have any precise numbers.

MR. MELZER. Yes.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Mr. Chairman, I have a lot of sympathy with the view that Lee Hoskins expressed. I have had some reservations about

these swaps ever since we entered into them. It's not that I'm all that opposed to smoothing operations but I felt that they might delay our dealing with some fundamental problems by covering them up for a while. I think it is important to note that foreign affairs are basically an Administration function and the Treasury has primacy in this area. And even if we philosophically don't agree with the kind of intervention we've done--and I think we pretty well [have expressed that] disagreement--we would have to yield to the Treasury on this, just as monetary policy is a function that Congress has delegated the Federal Reserve and the Treasury shouldn't be telling us what to do in those areas.

CHAIRMAN GREENSPAN. Any further questions for Mr. Cross? If not, can I have a motion to ratify the transactions since the September meeting?

MS. SEGER. I'll move it.

VICE CHAIRMAN CORRIGAN. Second.

CHAIRMAN GREENSPAN. Without objection. I also need a motion to approve one-year extensions of the swap line agreements.

VICE CHAIRMAN CORRIGAN. So moved.

MS. SEGER. Second.

CHAIRMAN GREENSPAN. Without objection. I think it would be useful to have Ted Truman bring us up to date on the Mexican situation.

MR. TRUMAN. Thank you, Mr. Chairman. I'll try to be brief. Basically, I have three points. The first is about developments in the last two weeks or so. Over the 11 business days since the announcement of the willingness of the Federal Reserve and the Treasury to develop a short-term bridge loan for Mexico's economic policies, that compares with Now, over the previous two weeks. In the first week, in fact, oil prices remained relatively firm, and short-term interest rates were pushed up by 200 basis points to 45-1/2 percent. Last week oil prices eased, interest rates were left unchanged, and so indeed

and I guess we would not be surprised if interest rates rose after today's auction.

The second point has to do with where we stand on the documentation for this proposed bridge loan. It is assumed in our review with the Bank of Mexico and the Mexican government that it will involve, as we now envisage the situation, a new special System swap arrangement for \$1-1/4 billion on which various amounts would be drawn successively. I would describe successive [drawings] as bridging to various IMF drawings in advance of payments for oil for the strategic petroleum reserve and World Bank loans. Those drawings would [not] be made until the sources of repayment were reasonably assured. And each would go on to-- , be made on a new swap line with the Exchange

Stabilization Fund of the same size. The remaining \$1 billion of the arrangement would use the existing Federal Reserve and ESF swap lines and

We expect to have the technical details fully agreed in a couple of weeks at which time we would ask the Committee for its formal concurrence of those arrangements.

The last point would be that Normand Bernard sent out to the Committee a paper by Ives Maroni on Mexico's economic situation and prospects. I hope it was informative, and I'd be glad to respond to any questions.

CHAIRMAN GREENSPAN. I just want to point out that I will be soliciting by telegram your views on the agreement--in a couple of weeks, Ted, did you say?

MR. TRUMAN. Well, I'm trying to be optimistic about it. It's a guess. The General Counsel is nodding 'yes' and he's--

CHAIRMAN GREENSPAN. Yes, I will be soliciting your views immediately upon completion of the negotiations, whenever that may turn out to be the case. Questions for Mr. Truman?

MS. SEGER. This is just a fundamental question. The day that this bridge loan was announced in the newspaper, I happened to have breakfast with a Congressman from the House Banking Committee and he said, "What in the world is the Federal Reserve doing in that? Why would they be involved with the bridge loan?" And I didn't know how to answer, I'll be honest with you. And then, secondly, there were a couple of articles in the newspaper shortly thereafter that indicated the conditions surrounding this loan were so much different from the bridge loans in the past. I would like comments on both of those.

MR. TRUMAN. On the first point, there was some activity in advance; and we, the Federal Reserve, have had a swap line with the Bank of Mexico since 1967. In fact, over that 20-year period the Bank of Mexico frequently has turned to us for short-term bridges and swap drawings, whatever you want to call them. The reasons for that swap line have something to do with the financial, political, and economic interaction between our two countries.

MS. SEGER. Well, I guess he thought the Treasury would be involved; I don't think he thought it was inappropriate for the country.

MR. TRUMAN. No. Well, traditionally the swap network was a Federal Reserve operation. It is true that the Treasury has a swap line too, but in every case going back at least as long as I've been here these operations have been joint and/or the Federal Reserve has been in there alone in some smaller, less dramatic circumstances. We have increased the swap line to show support, to allow them to borrow over an election period, whatever it might be, to provide some degree of financial support. On the second point, I think it's particularly difficult to generalize about bridge loans. At the broadest level, this operation is not any different from any of the other ones that we've been involved in over the last six years. We have identified a means of repayment of our swap; and once that's identified, we are reasonably sure that we are going to get repaid.

The issue which I think is found in the press was more in the context of loans that Mexico may receive from the World Bank than a full-fledged IMF program. That issue really turns on a judgment as to how serious Mexico's current economic problems are, which I would argue in turn depends on one's forecast for oil prices. If oil prices go down a lot, Mexico is going to have to take another strong dose of adjustment to another terms-of-trade shock. And that necessarily is going to involve a full-fledged IMF program. If oil prices stay where they are or go up some from where they are, it's less clear that they will need the kind of international financial support that is associated with IMF programs, and they more appropriately can look to further longer-term, development-oriented financing that comes out of World Bank loans. So, it's a question of how you see Mexico and its economic situation with regard to the extent to which the particular financing or bridging is oriented more toward the Fund or more toward the World Bank.

MS. SEGER. Thank you.

MR. MORRIS. The term "bridge loan" has taken on connotations that it didn't use to have.

MS. SEGER. Yes.

MR. MORRIS. It seems to me it ought to be a term that we avoid because it now means in the financial press highly speculative loans undertaken in connection with leveraged buyouts.

MS. SEGER. Well, maybe this is what we're talking about!

SPEAKER(?). It doesn't look too great, like the economy certainly--

MR. MORRIS. Certainly not too great any more.

SPEAKER(?). Real estate gets it, too.

MR. FORRESTAL. Mr. Chairman, I hope President Morris isn't suggesting that we buy Mexico.

SPEAKER(?). We've bought it!

MR. FORRESTAL. Ted, in the memorandum there's a discussion of capital movements. Has there been any change in that situation? Has there been more capital flight in the last few days?

MR. TRUMAN. I think it probably has been less. Capital flight is very difficult to identify even ex post, much less while it's going on. As far as we can tell,

some private sector entities in Mexico have various kinds of arrangements by which as of certain dates they can obtain dollars from the Bank of Mexico and they have the option to do so. And they have opted in the last couple of weeks, especially last week, to make use of those options. In a number of cases they have been using them either to go out and retire some of their own debt at a discount, which you may want to call capital flight, or to invest in something, or to buy Mexican public-sector international debt which they are using themselves for their participation in some

of the privatization efforts that have been going on in association with this general effort. Those are part of the debt-equity swap--if you want to put it that way--mechanism. And as far as we can tell, most of the [official] sales of dollars over this period--the last week--seem to be associated with those kinds of operations rather than a sort of a run on the peso. The general financial market conditions have been quite calm. That has been confirmed by  
and the Treasury attache.

Nevertheless,

MR. FORRESTAL. The other thing about Mexico, as I suppose everybody is aware, is that there has been a series of advertisements placed in major newspapers by a committee, I forget what they call themselves, which in effect forecasts civil disobedience, civil disorder in Mexico following, or at the time of, the inauguration of the new president on December 1st. I don't know how widespread those have been circulated, but I've had a lot of questions from people including my directors about that situation and its effect on the bridge loan and the repayment of the bridge loan and the World Bank loan. I don't know, Ted, whether this is giving pause for any concern in Mexico or not.

MR. TRUMAN. Well, I've seen it.

MR. FORRESTAL. It's essentially a pretty destabilizing kind of--.

MR. TRUMAN. I think the answer is that one can't completely tell, and I'm not sure exactly how that would modify our behavior under that. You were speaking of the behavior of the U.S. government in general. The behavior under these circumstances--, all I can say is that what I have read and picked up in the last month or so suggests that (a) there was certainly a high level of uncertainty; clearly, that was one of the things, along with declining oil prices, contributing to the problems that they first approached us on. But (b) my sense is that the efforts to, or the probability attached to, sort of destabilization has lessened somewhat. Basically, I'm basing that on an assessment that the [unintelligible] has said the immediate candidate for president seems to be having difficulty organizing a coalition because essentially his opposition has combined a group on the left and a group on the right against a [unintelligible] center treaty faction. And despite his efforts and obvious popular appeal, the efforts can carry through the kinds of demonstrations that were held during the summer [and] immediately after that seemed to have died down somewhat. That's not to say that I wouldn't expect some attempt to disrupt or show dissatisfaction at the time of the inauguration on the 1st of December. In fact, I would be flabbergasted if that did not happen, but I don't think anybody feels that this is life threatening, if I can put it that way, at this stage.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. I have a longer-term concern with this arrangement other than just the current bridge loan, although I have some concerns about that. The Fed has swap lines with what, the G-10, BIS, Switzerland, and Mexico.

MR. TRUMAN. And Denmark.

MR. HOSKINS. Denmark. Okay. Then, I would say there probably are two outliers in that group--Mexico being a clear one. The concern I have over time is that we're going in on these arrangements with an Administration--whether it's this one or the next one down the road--that is, through Treasury. And it seems to me that over time, given I think what the paper pointed out that Mexico needs \$3 to \$5 billion per year for the next several years, with the drying up of private resources I think we could expect more of this kind of activity. The concern is that we would be subject to being viewed as perhaps circumventing Congress by working more closely with Administrations down the road on this kind of activity. In that sense, I don't think it's appropriate to continue those kinds of relationships because I think it risks the political independence of this body to some extent. That's my longer-term concern. As for the shorter ones, I'll wait until I see what you are going to put in your telegram.

CHAIRMAN GREENSPAN. Any further questions for Mr. Truman? If not, let's move on to the Domestic Desk. Mr. Sternlight.

MR. STERNLIGHT. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. I think all those criteria for primary dealerships sound good except for two that Mr. Sternlight mentioned--the number limitation and the geographical. I assume that's just political reasoning on your part, but I can't see any other reason why you have those. Maybe that's the right thing to do but that seems to invite criticism from parties that are perfectly qualified except for the fact that you've hit the number limit and the fact that they may be concentrated in some geographical region. I'm not sure why you'd argue you are excluding by the limit basis.

MR. STERNLIGHT. I don't think it's a question of excluding any particular firms from a particular country that meet our criteria. I think the political concerns that arose probably sharpened our sensitivity to the issue, but I think speaking from my own view of it anyway I do have a concern at least about the rapidity of the growth in representation from some particular corners of the globe.

MR. JOHNSON. But I'm saying if you can insure these other criteria, which I think are good criteria, why would you use those other factors? If they are perfectly qualified by those criteria, why would you impose these quotas?

MR. STERNLIGHT. Just because I have a concern about the relatively aggressive pace of entry, and this is a way of slowing down that relatively aggressive pace of entry from a particular foreign sector in my mind.



VICE CHAIRMAN CORRIGAN. Let me respond to that, Manley.

MR. JOHNSON. Sure.

VICE CHAIRMAN CORRIGAN. I think, first of all, the two things shouldn't be written together. To some extent, the flexible limit of 50 is a straight-forward business decision in terms of how many people the Desk can with some efficiency do business with. There's simply no need from a straight-forward business point of view for a group even as large as 50. So, to some extent the 50, flexible 50 if you will, is dictated on straight-forward business grounds rather than any other grounds.

MR. JOHNSON. It seems like a way to do that would be just to tighten your criteria further.

VICE CHAIRMAN CORRIGAN. Now, the problem is that you will have situations, I think, in which unless you had some notion of some kind of a cap where there is no conceivable set of criteria that wouldn't end up looking overtly discriminatory toward somebody. I don't see how you can get from here to there. And this point on geographic concentration is not new. We have articulated that in various [unintelligible] or another some time ago. And what we're really trying to say, at least what I'm trying to say, is that we have a situation right now where in round numbers 15 percent of the market is in effect controlled by foreign firms. I have no problem with that. In other words, I do think that there is a special point--I don't know where it is and I hope we never get to the point where we have to worry seriously about it--but I think there is a threshold point in the market for U.S. government securities within which one would have problems in substance

And I think that all we're trying to do is to send a signal that says conditions could arise in which we might well conclude that enough is enough. As I just said, I don't think we're anywhere near that, but having that principle established is I think a very cautious approach. But it's one that we should do because again I can't think of a series of criteria that could be administered even-handedly that could in and of themselves guarantee that that condition might not arise in the future.

MR. HELLER. But your 1 percent market limit must limit it to some extent, even to less than 50.

MR. STERNLIGHT. Well, that may have a very similar impact.

MR. JOHNSON. That's what I was getting at.

MR. HELLER. Do you have an idea where that--

MR. STERNLIGHT. Right now we have 46 on the list including a couple that would be just on the edge of 1 percent. But they meet it, and over the past few years there has tended to be some giving of ground by firms that had the biggest share. Theoretically, you could have 99 firms doing 1 percent. It won't work that way, but it might work out that it would be very hard to get over 1 percent.

MR. JOHNSON. But I'm saying that's the maximum number you can have.

VICE CHAIRMAN CORRIGAN. You still have to worry about acquisitions, though.

MR. HELLER. Well, that's different.

MR. BLACK. The last two firms would meet all these tests?

MR. STERNLIGHT. Yes.

SPEAKER(?). What's the biggest share?

MR. STERNLIGHT. I guess about 8 or 9 percent.

CHAIRMAN GREENSPAN. Any further questions for Mr. Sternlight? If not, can I have a motion to ratify the transactions since the September meeting?

MR. KELLEY. So move.

VICE CHAIRMAN CORRIGAN. So move.

CHAIRMAN GREENSPAN. Without objection. Also, we need a motion to increase the Desk's intermeeting leeway as requested by Mr. Sternlight.

SPEAKER(?). I'll move.

CHAIRMAN GREENSPAN. Second?

SPEAKER(?). Second.

CHAIRMAN GREENSPAN. Without objection. We'll now move on to the economic situation. Mr. Prell and Mr. Truman.

MR. PRELL. [Statement--see Appendix.]

MR. TRUMAN. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for either gentleman?

MR. JOHNSON. I just have one question that bothers me a little. Those were good explanations, but one basic thing bothers me about the Greenbook forecast. I've mentioned it before. I'll refer to it again. What bothers me is the fact that we put short-term rates up about 1-1/2 percent--the federal funds rate. Yet long-rates are lower today than when we started that tightening move. The Greenbook assumes sort of a parallel shift in rates. And yet the economic data that we've seen, even though I think close to the Greenbook forecast, are definitely slower than what I would have anticipated at this level of interest rates, especially long rates. I'm having trouble accounting for that. How would you reconcile that kind of situation--the fact that your interest rate forecast had one thing in it and yet the economic performance has been even more modest than you may have anticipated because you would have assumed the higher level of long

rates and maybe even a higher level of short rates? I have a lot of trouble reconciling this.

MR. PRELL. We wouldn't have expected the lower long rates that we've had to have any significant influence on recent economic performance. So, I wouldn't want to connect those things quite the way I think you were suggesting. It does appear to us that the decline in long rates reflects some reduced concerns about how robust aggregate demand will be and thus what the future pressures will be in credit markets. Our assumption is that if things unfold as we are suggesting they will, there will be an element of surprise for the market. They will, therefore, tend to raise their expectations somewhat about the future course of interest rates. And with such expectations, we will get somewhat parallel increases in long rates as short rates move up. We have trimmed a small fraction off our long-rate increase over the coming year, in part expecting that the better price performance will be extrapolated to some degree. But basically we don't perceive that the real rate movements that have been implied by the recent nominal rate behavior are going to be imposing sufficient restraint over the coming year to keep the economy in check in the way that the markets may now be anticipating.

MR. JOHNSON. I guess what you still haven't quite dealt with--I'm trying to look backwards at where we've come. I agree that all those things could happen going forward; that's just prospective; it's something we don't know about. But looking backwards we haven't had a move upward; as a matter of fact we've had a slight move downward in long rates at the same time the funds rate moved up. You say that the long-rate effect may involve a longer lag than I'm giving credit for, but what's going to be the effect of that?

MR. PRELL. Well, we don't expect housing to be as weak over the next quarter as we previously thought it would be. But that's going to be the most visible effect.

MR. JOHNSON. Now, you're getting into something. I think you're saying that because the yield curve has flattened out and long rates haven't gone up that that's going to have a longer stimulus with a lag?

MR. PRELL. We think it will in the housing area and nominal rates may have some greater role there than they might in some other areas as opposed to real rates alone. That's a possibility.

MR. JOHNSON. So you're saying real rates have actually fallen on the long end?

MR. PRELL. Well, I think it's debatable what's happened to real rates. We don't think real rates have changed a great deal basically, even over a lengthier period of time than the last few months. We don't see that there has been a tremendous movement in real rates.

MR. JOHNSON. So you'd have to agree though that if that's the case, there has been some decline in inflationary expectations.

MR. PRELL. Indeed.

MR. JOHNSON. And you're just saying it's temporary and ill conceived?

MR. PRELL. No, not necessarily. What the norm is in the market here is hard to assess, but I guess we may be a bit less optimistic about what would happen with inflation if we maintained current levels of resource utilization in some markets. There is also a considerable view in the market that we're going to have a recession in 1989-1990, that we will see rates coming down significantly. Many of those people don't anticipate that it will occur with a further rate increase but just somehow will happen spontaneously. Others think that small temporary further rate increases will trigger this. Our view is that there is more underlying strength in the economy and that a small, further increase in rates would not have the effect of tipping the economy into recession. It's a very difficult process of figuring out what various segments of the market population are thinking, and what they're thinking we will do, which is another element that affects the term structure. If we devote more attention to the term structure and if that's our policy-making [tool], this would go back to the Lucas critique. It changes the structure of expectations formation of the markets to mean that the term structure has different implications in terms of reflecting market expectations of the economy than it did previously. So, we're in a very difficult expectations assessment.

MR. JOHNSON. I agree that all those expectations are quite [unintelligible], but we've had almost a year in which those long rates have had a chance to wash out or adjust expectations and they really have held.

MR. PRELL. But if you look at a very long period though, you would see that long rates are [quite close to] cyclical lows, [while] short rates have moved up relative to their cyclical lows. I think there is this recent phenomenon which probably has been exacerbated-- maybe more in my view than in Peter's and Don's--by questions about Treasury bond authority and the flight to quality from the recent LBO developments that may have proved somewhat more depressing for the Treasury bond rates than otherwise would have been the case.

MR. JOHNSON. That may have occurred earlier; I don't know about now. The tax bill is passed. I think that's [not affecting the long] end of the yield curve now. Anyway, I don't want to address too much of this. It's just that we've had this event over the last year and clearly it either has to be a decline in inflationary expectations or a decline in the real rate of interest. And since we don't think it's the decline in the real rate since we've been tighter, then it has to be a change in inflationary expectations. I know that can all change going forward, but at least I think you have to say at this point that's what the market thinks.

CHAIRMAN GREENSPAN. President Morris.

MR. MORRIS. Well, Mr. Chairman, as I said earlier I think the inflation projections look much too optimistic. I would use them as a best case projection. There are a lot of very optimistic assumptions embodied in the projections. One is what will happen to unit labor costs--because it has been in a rising trend since the middle of 1987. The projection assumes that they will level out at 4

percent throughout 1989. I would think this would certainly be the best case projection. I can't imagine anyone coming up with a lower number. I would say that more probably we will continue to see some continued rise in unit labor costs.

CHAIRMAN GREENSPAN. Is that productivity or compensation?

MR. MORRIS. Compensation.

MR. JOHNSON. You don't mean unit labor costs, you mean--

CHAIRMAN GREENSPAN. He means unit labor costs.

MR. MORRIS. I mean labor costs.

CHAIRMAN GREENSPAN. 4 percent all through compensation?

MR. MORRIS. That's what the projection shows through 1989 and leveling off around 4 percent unit labor costs.

CHAIRMAN GREENSPAN. With productivity up .8?

MR. MORRIS. Yes. And I hope that's the outcome, but I think in the seventh year of an expansion with very tight labor markets and growing tighter that could well be off on the low side.

CHAIRMAN GREENSPAN. I think you have to explain why the tightened labor markets to date haven't had any really measurable effect on the acceleration of wage patterns. That third-quarter unemployment cost index was something of a surprise, a deviation from historic experience. How do you explain that?

MR. MORRIS. I really don't know. I think we've been blessed in this situation with the remarkable behavior in wages. I think you can attribute some of it to the decline in organized labor, some to concern about being competitive with foreigners which we didn't have in the 1970s. But I'm not confident that it's going to continue.

CHAIRMAN GREENSPAN. This is supposed to be questions from you to our colleagues. I don't know why I'm asking you, Frank.

MR. MORRIS. No, it's all right. I would like to think that it will level out at 4 percent. But I think that the odds are that it's going to start to get higher. I think we're more vulnerable next year since I believe that the dollar has started another leg down. The value of the dollar is likely to average significantly lower next year than this year, and therefore import prices are likely to rise more in 1989 than they did in 1988. And the third thing is that they are projecting lower oil prices and they may well be right. I wouldn't know how to forecast oil prices, but I think there is a possibility they may not be as low as they are talking about.

MR. PRELL. President Morris, can I just clarify? We're not projecting lower oil prices but we are no longer projecting an updrift in oil prices. We're essentially saying they aren't going anywhere from the current level.

MR. MORRIS. Okay. The fact, nevertheless, is it reflects back from the projection for greater growth.

MR. PRELL. Relative to greater--

MR. MORRIS. And you're also forecasting, I take it, a normal agricultural year which again I hope turns out to be the case. But if we have a second bad crop year, then I think we can see some very big increase [in food prices]. I'd prefer to [be optimistic] on this but two [poor crop] years back to back could mean very big food price increases. Now, that's more reason why I look upon this as the best case projection because everything has to go right to keep the inflation rate down in the range that we're talking about. I haven't been accustomed to everything turning out right that often. So, it seems to me it's important if we're thinking about monetary policy for next year to hope that we get this result but have in the back of our minds that maybe the "best case" projection is not going to be the one that's realized.

CHAIRMAN GREENSPAN. Can I suggest we stay with questions so we can break after the questions and come back for general comments after that? President Parry.

MR. PARRY. Mike, the level of nonfarm business investment in inventories has been averaging about \$31, \$32 billion for the last two quarters. You've got quite a pickup in the fourth quarter--that means a source of strength in the fourth quarter--and then it remains at that high level throughout most of 1989. The level at around \$40 billion is just a little bit high traditionally. You commented that you thought inventories were lean. Could you talk about that a little bit because clearly it could be a source of weakness if it doesn't contain those.

MR. PRELL. Well, we do have a pickup in the fourth quarter which is largely the expectation that automobile stocks will increase somewhat with these higher assemblies. Looking ahead, we're expecting to see some moderate accumulation in manufacturing and where inventories still look to be on hold very little. We would expect to see some significant accumulation, not very large though, in the trade sector. This, given the scale of the economy now, is not a tremendously high rate of inventory accumulation and it doesn't really result in any substantial change in inventory-sales relationships. So we think this is easily consistent with the kind of overall growth and final demand we have, so long as it's perceived to be in an environment of sustained growth and businessmen don't begin to get as comforted by it. So certainly there's always a risk on the inventory side from our current assessment where some bumping could go on, but it doesn't look like a very aggressive forecast and there are quite a few forecasts out there that would be higher and others that would be about \$20 to \$22 billion.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. Just two quick questions. On the assumption about where we'll have to put interest rates over next year, you said plus one percent on fed funds between now and the end of next year, is that right?

MR. PRELL. Early next year. Yes.

MS. SEGER. Okay, how about the long rate?

MR. PRELL. We have them going up about the same amount.

MS. SEGER. Also the same, whether it's long governments or mortgages?

MR. PRELL. The events of recent days have pushed the Treasury bond rate to its current low, but if that rate is representative of the lower constellation of all rates or what's happened to other dealers on that track--and that I guess is what Governor Johnson was referring to--we have an essentially parallel movement of the rates.

MS. SEGER. Run this by me again. I think I asked this question last time; I'm getting more dense by the minute. What are the underlying demand forces now that we're really trying to dampen, knock in the head?

MR. PRELL. Well, we still think that business fixed investment, has a certain head of steam--not quite as [much] as earlier this year but still providing some forward thrust. On the assumption that we will continue to see a softer dollar than we've seen earlier this year, we see some stimulus to domestic production from the trade side. A basic point that I was trying to make was that there's no reason for an economy to gravitate to rates below normal in essence unless something is there to restrain it. And while we see fiscal policy as mildly restrictive, it is not a big powerful force as you look out at the year ahead. We don't see the inventory situation as being one that suggests there is going to be a retrenchment in orders and production imminently. And so in this kind of environment, unless we assume that there was still some monetary restraint at work going out over the next few quarters to further damp things down, the tendency would be for the economy to tend to grow at or above potential. And in this projection, if you want to turn the inflation trend back down again, you need to tip below that for a while and open up a little more slack in the economy. All of that is conditioned on some assessment of what this level of resource utilization means for inflation pressures. Basically, a crude reading of the experience over the past year would be that as capacity utilization rates have risen to their recent range and unemployment dropped below 6 and toward 5-1/2 percent, there was a general acceleration in wages and prices. Basically, we're saying you've got to try to reverse that if you really do want by 1990 to be moving back down on the basic inflation rate trend.

MS. SEGER. I guess I just have a slightly different view of life in the streets. Thank you.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Mike, would you go back and reread that sentence where you said something to the effect that we've stretched out the acceleration of inflation. It's back close to the very beginning. You think we've stretched out the period of acceleration of inflation.

MR. PRELL. No, I talked about interest rates and I said--

MR. ANGELL. No, no, I'm talking about stretched out--

MR. PRELL. I don't remember such a sentence. But we have a somewhat lower rate of inflation in the near term overall because of the change in energy prices.

MR. ANGELL. Well, that's why I didn't understand why you would have said [what you did] when the Greenbook clearly shows--would you read it please?

MR. PRELL. I'm sorry, would you repeat it, please?

MR. ANGELL. Did you find it, Ted?

MR. PRELL. Well, I have a sentence here that says because energy prices will be damping inflation in the short run, we built a more gradual interest rate increase into our current forecast.

MR. ANGELL. No, you were talking about price increases. I'll go back and read through it.

MR. PRELL. You're welcome to. I'm not--

MR. ANGELL. Do you agree that you said that you stretched out the rate of inflation in your forecast?

MR. PRELL. I didn't say that, but the fact is that our inflation rate is lower than it was previously.

MR. ANGELL. Yes, that's what I saw in the Greenbook and that's why you have the rate of inflation going down in the Greenbook. In 1989 the fixed weight inflation index was down to 4.2 from 4.5 percent in 1988, which is lower by 3/10ths of a percentage point. And the CPI fourth quarter over fourth quarter is 4.3 percent in 1989 versus 4.4 percent in 1988, and that's why I was surprised to hear you say that you've stretched out the acceleration of inflation.

MR. PRELL. I'm surprised, too. Certainly, the fact is that because of the energy price change we have a lower rate of inflation in this forecast than we did previously. What I suggested was if you stripped away that energy price effect, which presumably will be largely transitory [though] it could develop some momentum as it feeds through, but if it does it would serve to lower wages and so on. But if you look excluding energy, prices rise more rapidly next year than this year. And so in that sense, and looking at the compensation numbers as was noted earlier, there is a sense of a slight upward trend going through 1989 with a slight tightening and the economy growing at a slower pace.

MR. ANGELL. Even though your numbers show inflation going down, you said it's going up, that's all.

SPEAKER(?). What about 1990?

MR. PRELL. It changes and there's two parts of the sentence.



SPEAKER(?). Maybe you can help solve the problem by telling us what 1990 looks like; that way he'll have a trend.

MR. PRELL. Well, for 1990 one needs to make some policy conjectures and so on. We will present 1990 next time and basically we would at this point expect to show a forecast with rather slow growth in 1990, possibly some slight further edging up in unemployment. [unintelligible] utilization, and some indication of a downward movement in excluding energy prices and compensation. So, we're looking toward 1990 really in our thinking here about the interest rate path at this point of projecting.

MR. LAWARE. Mr. Truman, the oil projection is a very important part of this whole forecast and I heard you as you were going through your conjectures about OPEC talking about I think three different levels of projections and prices. Could you replay that for me just so I'm sure I understand what you said.

MR. TRUMAN. Yes. First, let me say this is an area where we feel so nervous we call it an assumption and try to have some rationale behind the assumption. The assumption that they'll stay around the current level or maybe rebound after [the OPEC meeting to] \$13 a barrel is based upon an assumption that they will be able to restrain production of crude petroleum to slightly under 20 million barrels per day.

MR. LAWARE. From the 21 million?

MR. TRUMAN. From the current 21 million plus that they're at now. If indeed they fail to do that, and say they were at or above 21 plus, then you could have a drop in oil prices down below \$10 a barrel, roughly that order of magnitude.

[Coffee break]

CHAIRMAN GREENSPAN. Can we get started? Who would like to open up on Committee discussion?

MR. BOEHNE. Well, I think there is an element of Santa Claus in the outlook, but I don't think that's something that we ought to snicker at. Some of it is luck, but some of it is our own doing. We did anticipate an economy that was overheating. We took a series of gradual steps over a period of months. And I think that we ought not to be all that unhappy that it's bringing forth the results that we set out to achieve. So, while I think we have to be watchful and maybe a little skeptical, I don't think that just because something is falling our way that we ought to say that it isn't a realistic outlook. I'm reasonably pleased with the outlook. My own sense is that the risks are still on the side of inflation, but I think that there's nothing in the immediate scene that would require us to take any significant action. So I'm prepared to say hello to Santa Claus a little early.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, growth in the Twelfth District has slowed somewhat but we think the outlook is rather optimistic. The slowing really appears to reflect the tightening of labor markets and

the lack of unused resources rather than just weakness in demand. To offset these impediments to expansion, we're beginning to see that some employment growth is shifting through areas of the District which have characteristically been weaker. For example, Boeing is opening up a plant in Spokane in eastern Washington where there is a lot of labor available, and it has been traditionally weak. We've seen, for example, that Carnation is going to open its largest production plant in Bakersfield. As you know, Bakersfield is about 110 miles north of L.A. and costs are quite a bit lower there. So, that does seem to be going on a bit. As far as durable goods manufacturing is concerned, it remains strong because of the dominance of aircraft and electronics industries. And you perhaps saw the article today in the paper about Boeing indicating the strength of their sales and profits. We are also seeing the shortages that have been characteristic of the wood products and paper industries fading a bit. This probably is a result of the fact that housing has weakened a bit, at least new housing. And the generally slower pace of the economy may be having some impact on packaging. Prospects for agriculture in the District--and I'll just underline the point that it is the single largest industry in the District--prospects there depend very importantly on rainfall this winter. We have had two years of drought, but it really hasn't affected agriculture. Most of our agriculture in the District, especially in California, depends on irrigation; but if we have a third straight year of drought this winter it would cause problems. Also in 1988 the District continued to excel in the production of championship professional sports teams!

CHAIRMAN GREENSPAN. I think you've got a surplus with inventory adjustment!

MR. PARRY. With regard to the national economy, I would agree that [some] slowing of economic growth may be underway. After we abstract from the effects of the drought, our forecast is that growth will average about 2 percent next year with the slowing in growth centered in the areas that have been mentioned in the Greenbook forecast: net exports, business spending on plant and equipment, and consumer spending on durables. And although inflation certainly could be less next year, I think the underlying rate of inflation probably will not improve. And it seems to me, therefore, that further tightening action may be required sometime in 1989.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Well, our outlook is broadly, in the national context, very consistent with the Board's forecast; certainly in a numerical sense that would be true, but it is perhaps a little bit different in tone. From many indicators certainly, it would appear that we are experiencing some moderation in the growth rate, albeit from very high levels. I think really the major question is whether or not this moderation is and will continue to flow through to prices. And on this front there are just a couple of what I would view as signs, and therefore the second part of the question would be do we need to take additional steps at this point to accelerate the process. We'll talk about that later.

With regard to the District and consistent with the overall economy, manufacturing activity in our District as we measure it does seem to be moderating. On the price front, contacts within the

District and certainly our directors suggest that there is a discernible leveling in price trends with regard to certain raw materials and commodities. The paper industry for example where there have been very significant increases in pulp prices, weight paper, and [unintelligible] prices seem to be hitting a peak. Indeed, expects to see something of a decline in those prices over the next five or six months. Aluminum prices are down; even steel is showing some signs of leveling. And there are many products that have been in very short supply where the backlogs have been filling up with these distinct signs of easing.

A comment about housing: We would expect 1989 to be not unlike 1988 with regard to housing starts, say 1.4 or 1.45 million. But in the past, production and housing starts have been attributable to interest rates. who are very close to this industry, are suggesting that in fact we may be getting into an environment of some market saturation and that if new home sales don't continue at a fairly high level, we could see a buildup of inventory of unsold homes. If this is true, if we're getting into some market saturation with regard to housing, I've always had a question on the auto side of how far we can continue with these very big auto years. And then we could also get some market saturation in that sector.

Finally, a comment on the agricultural sector: I hate to mention it, but I'm going to say just one thing about aflatoxin, which is an issue that has been very badly we think blown out of proportion; it's really not as big an issue as you might expect from reading the press. But the FDA's standards of aflatoxin were really very, very tight. It's one of these issues where you have to eat a ton of corn flakes forever before you get into trouble. Those standards have been reduced a bit, but when this first hit the exchanges corn prices took a big dive; and beans, in sympathy, also went down. They've come back and I think the markets are looking through this as kind of a non-issue. From a [statistically] measurable perspective, we would expect that the aflatoxin effect would have stopped, but admittedly [the price of corn] is down because the drought would only have an effect of, say, 5 to 10 percent. Given this year's drought, the early anticipation is that the next year's planting will be very heavy. And of course we're a million miles away from that event. But the expectation is that the acreage will be up by about 35 million acres, some 12 to 14 percent. And if we get some reasonable growing season [weather], production could be pretty heavy. Meanwhile, land values are continuing to increase--3 percent in this most recent quarter and 4 percent over the year. So, I must say net at least in our District, the agricultural sector has come through much better than one might have expected given the kind of circumstances that we were dealing with.

I think from a national perspective as well as from the District's, things are in pretty good balance. And I would agree that no doubt some of the moderation that we are experiencing is a reflection of the monetary policy actions that we've taken so far.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. Thank you, Mr. Chairman. With respect to the District not very much has changed since the last meeting and so I won't spend very much time on that. I will observe that the Sixth

District economic activity continues somewhat sluggish on average, and this reflects in part at least the softening seen in the national economy. Weaknesses are basically in apparel, which has weakened somewhat since our last meeting. That's also having an effect on textile output as you would expect. Retail sales are fairly sluggish throughout the District with some exceptions in some of the larger metropolitan areas. But the retailers are expecting some pickup and their strategy seems to be to have pretty heavy discounts and promotions at the holiday season. Housing is also soft. All of these weaknesses are leading to some uptick in the unemployment rate generally around the District. We're getting fairly good strength in automobile sales where inventories have been very low. I spoke to a Chevrolet dealer yesterday, and he said that as of the middle of September he had no 1988 cars at all, absolutely none. And he's looking for a good 1989. The service sector continues to be strong in the Sixth District, and agriculture in spite of the drought has picked up and the prospects for farm income have improved considerably because we've had some late rain which has brought yields on several crops to above average levels. And these prices, of course, are helping farmers.

Two other things that I would mention: In going around the District and talking to business people, bankers, and our directors, we see very little evidence of price increases. There are some price increases coming for raw materials, but apparently many industries are not able--at this point at least in our District--to pass these through. We keep asking about wage pressures and, in spite of some labor shortages, we don't see very much in the way of evidence of increased wages either in the services sector or in organized industries.

On the national economy, our forecast is a bit stronger than the one shown in the Greenbook. I think this is partly because we have not assumed that further restraint is put in place in 1989, as the Greenbook obviously has. As a result of that, we also see higher inflation, and I would tend to agree with Frank Morris that the [Greenbook] inflation forecast is probably the best that one could come up with. On the real economy side, we think consumer expenditures are going to be somewhat stronger. We also think that the improvement in net exports is going to be somewhat smaller than the Board staff is forecasting. Now, I think that Mike Prell put his finger on something that has been very apparent to me over the past several months and that is there seems to be a psychological mindset on the part of many people that 5 percent inflation is an acceptable level for prices. I think associated with that is the feeling that is perhaps growing that the Federal Reserve in fact is satisfied and content with that level of inflation. Now, I have a concern certainly about that, but I have a further concern that this LBO activity that we've seen recently--and all of us I suppose are concerned about this greater leverage throughout the economy--I hope is not being driven by assumptions that inflation will ease this debt burden in the future.

There have been people saying to me that they think the Federal Reserve is going to have a very inflexible kind of policy because we can't afford to allow a recession to appear in the economy. We've had the thrift industry problem; we've had the LDC problem; the deficit problem; and now we overlay this LBO situation. And I think there is a feeling in the market that maybe the Fed's hands are tied

and we have to maintain an inflation rate to keep [the economy] from moving into a recession. I hope that that's not true and I hope that somehow we can get the message across that we are not content to allow inflation to remain at its present level. We'll get into the monetary prescription in just a moment. I'm not arguing for a tightening of policy now, but I think in some ways we need to construct, however we can, the mechanism to get the word out that we are not going to be in the business of perpetuating inflation for the LBOs or other reasons.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. With regard to the national economy and the Greenbook forecast and the [unintelligible] that are underlying that, it seems to me that the risk of falling considerably short of what's in the Greenbook is low. And I think Mike Prell outlined a number of points with which I agree that account for that. Orders backlogs remain substantial; inventories remain relatively low. I do think there will be further improvement over time in the trade situation. And I would add to that that I don't know how much fiscal restraint is assumed in the Greenbook, but I must say I'm a little concerned about the course of fiscal policy and the [impact of] Gramm-Rudman and so forth as we go forward. So, as I look at that particular forecast I don't see a lot of conditional downside risk aside from the possibility of some exogenous shock. I don't know if the economy is going to do a lot better than that; I'm not saying that, but I don't see that there's a lot of risk in it. I think that kind of forecast as several people have commented is welcome, in part because I think we are in for a period of rather modest growth in the labor force because of demographics and other factors. We probably shouldn't get too enthusiastic about what we might do on the productivity side, and so I think that does limit things from the production or supply side of the equation.

As far as the District economy is concerned in this environment, the District economy continues to perform very well. There are a few pockets where the drought has had a significant and adverse effect on agriculture. But as I've commented before, in the large diversified metropolitan areas, the District economy has been quite strong for some time. And one thing that's now very, very clear as far as much of the rest of the rural part of the District is concerned, is that the paper and forest products industry and the mining industry are sufficiently large and are expanding sufficiently strongly that they are taking the rest of the rural economy up with them. And so in this District at least a substantial economic expansion is continuing.

CHAIRMAN GREENSPAN. President Boykin.

MR. BOYKIN. In the Eleventh District, Mr. Chairman, things are pretty much as they were in September. We are continuing to see some modest growth. Manufacturing is leading the improvement that we have. The unemployment rates in our three states have been moving downward but only Texas is making any progress compared to the national rate in closing the gap. In Texas we've got unemployment of 6.8 percent; in New Mexico it's 8-1/2 percent; in Louisiana it's 10 percent. The lower oil prices are a real source of concern and could undermine the modest recovery that we've been experiencing. I think further declines would probably cause us to look for zero growth in

1989 compared with the 1-1/2 percent or so rate of growth that we've been forecasting over the last several months. Other sources of concern for us include a noticeable slowdown of orders in the electronics industry. And there continue to be a few pockets on the foreign side and [some] that tend to be drought-related. Of course, we continue to worry about and try to deal with the financial situation in our District, both on the thrift side and the banking side.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. In our District, I've been reporting the last couple of times on a relative gap in employment growth vis-a-vis the national averages which has been somewhat surprising because our District is tracking [the national economy] pretty well. In fact, in the second quarter we had the largest gap ever in the 30 years that this number has been looked at. That trend seems to be perhaps reversing itself now, and we did have modest manufacturing employment growth and relatively flat nonag employment in the recent period. In manufacturing, the areas where growth was noted are electrical equipment, nonelectric machinery, and chemicals. In any case, in looking at this peculiar behavior, because as Bob Forrestal has been reporting and I have as well our activity really doesn't seem to be as strong as the national averages, we tried to figure out what was going on and some of it may be explained by a greater concentration in manufacturing in the District than nationally and services have been growing more rapidly nationally. And secondly, there may be some seasonal adjustment problems. But basically we haven't been able to explain or understand this fully.

Reflecting some of the comments that others have made, the agricultural picture is a lot rosier than might have been anticipated at one time. Corn crops came in better than expected; soybeans were higher than last year; the cotton crop was a 25-year record; the rice crop was good; the tobacco crop was the best in 4 years, so I'd say that generally the picture there is pretty rosy in the District. Finally, in terms of credit demand bank lending has been relatively sluggish although we've noted a pickup in the third quarter. Growth in commercial lending both in the most recent three-month period and over the year as a whole has been about 11 percent, and that's quite a shift on the commercial lending side over the last year.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. Thank you, Mr. Chairman. With respect to the national economy we would agree with the Greenbook on growth in 1988. For 1989 we project a bit slower growth than the Greenbook, and that's without the assumption that interest rates would rise in 1989. I guess you could conclude, therefore, that we are [projecting] more than just modestly slower growth than the Greenbook. Nonetheless, it's so close that it has no real relevance for this purpose.

With regard to the District economy, in the agricultural sector as already has been noted the picture is very bright; it has almost turned upside down from what we were looking at earlier in the year. The net farm income for the nation, for example, will be as great as it was last year and last year was a record. Having said that, there are some pockets within the District where the drought has had a substantial impact, particularly northern Missouri, northeastern

Kansas, and on up into Si's area. On the other hand, agricultural farmland sales have picked up rather dramatically because of the liquidity that seems to be in that area. And prices have begun to accelerate in those sales. With regard to the manufacturing sector, it's roughly flat. Retail sales are flat. It's interesting that we also have found little evidence of price increases showing up in the District. However, without exception when you talk with business people in the District, inflation is still on their minds. There's an interesting activity going on in the energy sector because of the drop in the [price of] oil. OPEC oil prices have created the uncertainty that quite likely will almost close down the new exploration activity within our District. It's a fairly sizable part of the economy and largely will affect Oklahoma, Colorado, and Wyoming. Those are the areas that were depressed earlier because of agriculture and energy and it won't help their outlook.

There is no new information with respect to commercial construction which is a problem in Denver, Oklahoma City, and Tulsa. It's going to take a long time to work its way out. Overall, I think the Tenth District will continue to trail the national recovery.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I read the Beigebook this time with great interest and all the comments about signs of slowing business. I certainly agree with that. I also think it will slow next year even without additional tightening. I have been checking a great deal with all kinds of firms that actually deal with consumers, and the story is consistent that consumers need tremendous inducements to buy, a lot of coaxing; competition is fierce all over. Also, if you look at the inventories expressed as inventories-to-sales ratios and do it in constant dollar terms--I'm thinking of the chart that I get from Goldman-Sachs all the time--it shows inventories are not in quite such good shape as I think we're assuming they are. Also, if the sales part of the ratio weakens much, then what look like acceptable ratios can quickly become a touch high. Also, with regard to business spending on equipment, I'm again hearing more and more decision makers comment on the uncertainties they have over future tax policy as we hear more and more talk about fixing the deficit and I think that that in and of itself is going to put a damper on this kind of activity. Also, questions [they have] about sales prospects in their own businesses I think will tend to support that sluggishness. On the housing side, I agree that sales of existing homes have been strong, but I also know that many realtors have been out beating the bushes telling their customers to buy now because home prices are going to rise and buy now because mortgage rates are going up. And I think that there's some of that in these good results for the last three or four months.

Also, I'd just like to take a minute to report on an interesting meeting I had yesterday with some Fortune 500 kinds of business people. They had an interesting main topic of conversation, because they chose the subject of corporate takeovers. That was their big interest, and I guess I shouldn't be surprised that one of the interesting things that came up was the notion that there are almost con-man types who are out running around and will actually go and approach management at very big companies and tell them if they go for one of these deals we will guarantee you so many millions of dollars,

etc. And so these people are actually trying to play, I guess I'd almost call it matchmaker, before there is any action of another type taking place. But there is great concern and the more thoughtful ones I believe were also talking about these two recent heavily publicized deals and saying that, sure, the debt can probably be serviced but that would mean that the cash that they thought they were going to have for R&D expenditures, privatization, etc., would be drained off from those good projects and would have to be used for debt service. I think they were quite concerned about that. The second big topic of conversation was this new National Economic Commission and they were very eager I'd say for that group to get its deliberations done and announce the results on December 15th. And I think their expectation is very high, in fact so high that afterwards a fellow who works for and has been attending these NEC meetings with him came up to me and said "I just want to warn you, don't be too optimistic because first of all they're not going to have the report by December 15th; secondly, there's no guarantee they'll even agree among themselves on how to do it." And, therefore, he thought that there might be some disappointment with the results. And then finally, some of them did express some concern about the outlook for next year and whether or not the economy would make it through a seventh year of recovery. But overall it was very, very illuminating.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. Given the national slowdown that we've been hearing about and also the third-quarter numbers, we tortured the anecdotal data as best we could and failed to confirm any reasonable slowing in the District. The best we could find was a steel company that had gone off allocations to customers. In other words, it was back to price and bargaining at that time.

MS. SEGER. Did you talk to your retailers?

MR. HOSKINS. Pardon me?

MS. SEGER. Did you talk to your retailers?

MR. HOSKINS. Yes, I'm on manufacturing right now.

MS. SEGER. Oh, okay.

MR. HOSKINS. I'll go to retail.

MS. SEGER. Okay.

MR. HOSKINS. Steel production in the State of Ohio is up about 9 percent in the last three months over a year ago. Manufacturers are optimistic. In terms of new orders they're still really quite strong. Again, the District may not be typical of the nation as a whole. Inventories are relatively low and the orders are strong. In terms of hiring plans, there has been a survey that was completed recently within the District. We have 19 out of 25 of the larger cities where we expect increases in employment. Four cities that are strongest are the four largest, Cincinnati, Columbus, Pittsburgh, and Cleveland. Retail sales [are up] probably about 5 percent over a year ago, but inflation in the 3 to 4 or 5 percent range leaves a very small real gain. But that's not much different



from the way it has been the whole time. So, really not much has changed in the District from what I've been reporting in the past even though we increased our efforts to try to ferret it out where we might be anticipating a slowdown.

In terms of the national economy the only thing we might have to add is that we do have a panel of Fourth-District economists that meets quarterly. Their only disagreement with the Board forecast would be on the implicit price deflator. They are about 4 percent higher than the Greenbook for 1989. But again these are primarily manufacturing-based people who are looking at fairly optimistic sales projections.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. I think I see an outlook that's every bit as strong as the staff would see it. I don't have the slightest idea what interest rates might prevail over the period ahead, but it does seem to me that the economy shows a lot of resilience and a lot of signs of continued increase. And it doesn't show any signs that the recent slowdown in money growth is being translated into anything which would be an expansion-ending event. It seems to me that our economy has changed rather dramatically in the '80s from the '70s, that we are in a much more flexible wage-price arena than we had been in before. Otherwise, it just wouldn't be true that we could have the kind of exchange rate adjustments of the dollar that we had and the kind of monetary growth paths that we had in 1985 and 1986 without it showing through into much higher rates of inflation than the year-over-year 4.1 percent that I think we're now seeing in CPI. And it seems to me that that shows us that the environment has changed globally and that that has tremendous impact domestically.

But we've had a lot of industries that have suffered rather severe shakeouts. And people's memory gets to be long and so we have more attention in industrial America and in rural farm America concentrating on cost efficiencies than we did before. And now given the present level of commodity prices, the present level of finished goods producer prices, crude industrial prices--those prices, it seems to me with this emphasis upon cost efficiency, provide ample profit margins to give us the kind of capital investment and the kind of continued expansion that I think we find is desirable for the economy. Now, even though some commodity prices may have shown some response to the slower money growth, we haven't been having commodity prices that just do not show that. And it seems to me that the back hasn't been broken in terms of this price cycle so that we can suggest the commodity price deflation such as began in 1984 and 1985 would reach the proportions that it did in, say, 1986.

Now, I would agree that the one exception to that is oil, but there again in percentage terms we're not looking at the same kind of reductions they were looking at in that period. And I would agree with Roger that the areas of U.S. oil industry that have such difficulty finding oil resources, and where the output of oil is so low, are indeed going to experience some dramatic curtailment. But I believe that will be more than offset by the [expansion] under way in agriculture. Just the release of all these acres from the acreage control [program] means demand for more machinery; it means demand for more fuel; it means demand for more fertilizer. So, we already have

under way a large acreage expansion of the agricultural industry which I think probably by itself offsets what's happening in oil. Now, it just seems to me that a foreign exchange movement of the dollar [associated with] decided weaknesses would undoubtedly cause commodity prices to at least remain at these very, very high levels if not to accelerate. And so it seems to me that the economy does have ample strength.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. In terms of the national economy, our guesstimate for the next five quarters really is not materially different from the outlook contained in the Greenbook, although there are some differences in individual sectors. The big difference that we continue to have is on the inflation side in that by the end of 1989 our inflation forecast is about 1-1/4 points higher than the Greenbook forecast. Now, analytically there are two factors that account for that. One is that we have a higher oil price--we have an effective oil price of \$15 whereas I think Mike has \$13 for the year as a whole. And that's about 4/10ths of a percent in our arithmetic; I don't know what it would be in yours. But the big, big difference is in the fact that we have the unemployment rate drifting down and you've got it drifting up. From where we are, in terms of labor markets, the difference in the algebraic sign makes quite a difference. Indeed, if you look through the numbers, by the end of next year with essentially the same productivity numbers we end up with compensation rates and inflation rates that are in underlying terms 8 to 9/10ths of a percent faster than what is in the Greenbook. I don't know what to make of that. Our year-end unemployment rate is 5.1 percent; the [Greenbook] staff's is 5.6 percent. One would like to think that a half point couldn't make that much difference, but I think it's quite conceivable that it could. Indeed, I think I could even make a case that it could be worse than that.

In terms of the question you raised earlier, Mr. Chairman, about why hasn't more shown through on the wage side given where we are right now, we were looking at some numbers that really fascinated me yesterday. I'm sure, Mike, that you look at these; I've just never seen them before. But the breakdown it shows for the collective bargaining agreements was--for example, in 1988 if I remember these numbers correctly--that for still 40 percent of individuals covered by agreements reached in 1988, the agreement provided for some kind of a lump sum payment in lieu of, or partially in lieu of, a wage increase. And even more astonishingly, 20 percent of the population in 1988 still had no wage increase, but a wage reduction. In both cases--if my memory is correct on the numbers, but I think it's close enough--those numbers of 40 percent and 20 percent respectively are down significantly from where they were in 1984, 1985, and 1986. But I found it surprising they were still as large as they are. And I think that in a symbolic way that is part of the answer to your question as to why we don't see more pressure than we've already seen on the wage side. Now, how much further that kind of thing could work in our system, I don't know. I personally think that the point Frank Morris made about foreign competition is a very big part of it. And maybe we'll get lucky in 1989 as well. But I would agree with Frank that any way I would cut it that the risks are distinctly on the side of an inflation outcome that is somewhere north of the numbers that are in the Greenbook.

As far as the economy itself is concerned, again the anecdotal comments that we're picking up from directors and others are broadly consistent with the commentary around the table--that things have slowed down a bit from the almost breakneck pace of the late spring and summer. But the economy nevertheless is still being characterized as very solid looking into the future. I think we are still getting anecdotal comments to the effect that export performance outlook still looks good, although I must say in looking at the economic forecast the one place where I still am a little bit nervous on the downside is in terms of net exports. We've got a slower improvement which is understandable, but I don't think that's by any means baked in the cake. But all in all, I think that we're pretty lucky in one sense to be where we are. And, Mr. Boehne, I think that one can look at all of this and easily envision things that could have been a lot, lot more difficult.

CHAIRMAN GREENSPAN. Governor LaWare.

MR. LAWARE. I guess I share the feeling of several of you that inflation is more likely to create a need for further tightening as we go forward rather than the other way around. But I don't think that the decision is going to be any easier when we finally have to take it. I think it's going to be more difficult because of the increasing elements of fragility in our financial system, which would react very badly to anything that threw us into any kind of recession. These leveraged buyouts and takeover loans are so delicately balanced, in terms of cash flow on certain assumptions about revenue flows and interest rate levels and the ability to dispose of assets in order to get debt back down to manageable levels, that if there's any hesitation in the economy or any significant downturn in the economy, those could be thrown into very bad straits. And I don't think that's going to get any better as it goes along, nor is the thrift crisis going to be less sensitive to that kind of thing. I don't think there's enough evidence to move in a tighter direction at the moment, but it's going to be a tough decision to make if and when we have to make it because of these other elements.

The second thing that worries me is whether we are able to control or manage the decline of the dollar by nominal intervention in the foreign exchange markets. If these markets ever become persuaded that intervention isn't going to do the job, and there is a real flight from dollar-denominated assets, particularly securities, it seems to me that either we're going to have to begin consciously to defend the dollar with interest rates or it's going to get automatically defended because the financing of our deficit is going to be thrown back into domestic markets that will drive interest rates up in any case. Those are the two things that worry me most about the current situation, and yet I'm not persuaded that we should significantly change our course at this stage of the game.

CHAIRMAN GREENSPAN. Anyone who would like to--

MR. JOHNSON. Can I just make a couple of remarks? I'm not sure where we're going from here. Like everyone else, I think things look pretty good at the moment; whether it's good fortune or our good sense, it's hard to tell, but I'll take either one. The situation does look fairly good at the moment, but where we're headed and what we'll be faced with is a little difficult to tell. I guess I'm a

little more optimistic about the future--just on the basis of how well we have done in keeping domestic demand relatively modest. Whether that's going to be enough, I don't know. If foreign demand surges while we're so internationally competitive, we could put more stress on the manufacturing sector, but that's not evident. Domestic demand abroad has at least been reasonably good, but if both Germany and Japan take some modest tightening action--Germany perhaps more than Japan--I don't see demand for our exports being out of control by any means. And there's some evidence on the trade side of a slowing of exports, so I don't see that source overtaking our capacity. Growth of our gross domestic purchases, which is I guess the broadest measure of domestic demand, has been very modest--around 1-1/2 percent. The other measures which are a little narrower, have been higher but they've been trending down. And this paper that was presented today, and the comments about the loan situation, how much growth can you get out of that kind of a M2 picture? You can't get a lot. There's only so much, even if you make some fairly optimistic assumptions about the kind of velocity growth you could get from M2, which has a long-term zero trend. You can't get some sort of disaster out of that, and so I see the long run looking fairly good. That may mean that pressures surface later to some extent, and if that happens we'll have to move. Right now, things look pretty good.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. There have been very few changes in the Greenbook projections this time from last time, and we agree pretty broadly with that and think they are pretty closely on target. It seems clear that there has been a slowing in real activity--or there was in the third quarter--and I think it's reasonable to suppose that, on a drought-adjusted basis, the economy will grow more slowly next year than it has this year. At the same time, I think the risks are on the upside but I think they've got a pretty good forecast. I wouldn't be quite as sure about the risks on the upside as Frank Morris, but I'd be more or less about where Ed Boehne came out on both the level of output and prices.

CHAIRMAN GREENSPAN. Governor Heller.

MR. HELLER. Well, it's getting pretty late, and I really have nothing to add, so I'll pass. Thank you.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Well, I don't have anything to add either, but I will! I hear a lot of consensus around the table as to where we are now, and a lot of well-taken warnings as to what could occur in the future. And those warnings seem to be cutting in a variety of different ways. What that tells me is that we simply must do what we'll do anyway, and that is be very watchful. But it's a little bit too early at this point to reach any strong convictions as to what should be done, or which way things are going. Now, like Peter Sternlight earlier in the morning when he was giving his report, I thought it was a good theme for the day and that is "steady as she goes."

CHAIRMAN GREENSPAN. President Morris, you're the last one. I guess you think you've said enough, is that right?

MR. MORRIS. I guess that's right. Yes.

CHAIRMAN GREENSPAN. Why don't we now move on to staff comments on monetary policy and the directive? Mr. Kohn.

MR. KOHN. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. I must say, listening to this, it doesn't sound all that different from our last meeting. Questions for Mr. Kohn?

MR. HELLER. Don, how long do you think that that slowdown in M1 and also to an extent in M2 can be sustained without really having an impact on the real side? You talked a bit about velocity, but if you're looking at M1, we're really looking at zero growth out for the period that you're talking about.

MR. KOHN. Right. I think we could have very sluggish growth for M1 for some time to come. Part of this is the demand deposit phenomenon. We expect extremely weak demand deposits over the next couple of months as firms catch up on compensating balances. It really has practically nothing to do with their transactions and their spending, but rather with how they compensate banks for the services they get. In addition, we have a very steep deposit yield curve that I would expect to narrow only gradually, even if rates remain where they are--to abstract from any further increase in rates. And that will continue to induce both savings-type balances and other checkable deposits and NOW accounts to move into time deposits. So, I think we could have extremely sluggish growth in M1 for some time to come without necessarily having any implications for the economy. Think about demand deposits: We have a lower level of demand deposits now than we had two years ago, and in the meantime we've had 7 percent nominal GNP growth. It just doesn't seem to have very much effect.

MR. HELLER. You can argue the other way around, too. You can stretch a rubber band only so far, or you're taking up the slack that really exists there.

MR. KOHN. In the rubber band analogy--, in the NOW accounts, there's still quite a bit that is savings motivated, and I think a lot of that can move out. As for M2, which you also asked about, it depends really on the underlying forces in the economy. If you had an economy that wasn't showing the kind of strength that's really implicit in this staff forecast, and interest rates were flat, I'd expect income to keep growing, say, along a 6 percent path. Then M2 growth rates would have to rise toward that, but very gradually, and perhaps we wouldn't reach a 6 percent rate of growth consistent with that very nice kind of outlook until the latter part of next year. But there's enough elasticity in that rubber band, I believe, to support considerable output growth without that much M2 growth or M1 growth.

MR. HELLER. How about the takeover activity, how does that affect the--

MR. KOHN. I think the principal effects there would be on M3--there's a little effect on M2--because it will be financed largely through the banks who will be issuing a lot of managed liabilities and

that will find its way into M3. We've built that into our forecast. That's one of the reasons why we have the strong M3 toward the end of this year in the Bluebook. There's a small effect on M2. For one thing, some of the managed liabilities they will issue will be the stuff that will end up in M2--overnight Eurodollars, for example. For another, you have the possibility that with a huge volume of takeover activity the people selling the shares may take a while to figure out what they want to do with the proceeds, and they might park that in M2 temporarily. In the past, we haven't really found a noticeable effect from that, but I'm not ruling that out with the huge volume that could happen this time. But I'd expect the effects on M2 to be very small.

MR. HELLER. Thanks.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. I want to follow up on your comment about oil prices. I agree with a lot of what you said about that, but with that kind of increase in real disposable income, it might have an effect on demand that you wouldn't necessarily want to validate fully. However, that still may mean that nominal rates would fall, even though you're saying that you wouldn't let real interest rates come down as much.

MR. KOHN. I'm not sure exactly what would happen to nominal rates. That's why I tried to word it carefully to be vague, because I've thought about that. And it's not clear because I think it's important that real interest rates not fall in this circumstance. Nominal rates I can't tell you about, because I don't know quite what's going to happen to inflation expectations.

MR. JOHNSON. Well, that's what I'm thinking, but if there were a real plunge in prices from this level, and they seem to be viewed as more permanent than this [unintelligible].

MR. KOHN. If inflation expectations really did come down and the Federal Reserve was seen as validating those lower inflation rates so that the expectations are right, then I don't see happening what I think occurred in 1986 when the bond market kind of got carried away with the oil price decline, in effect reducing real interest rates. It was very hard to determine at the time and it depends on whose expectations we're talking about. As a consequence, we got very strong growth in the economy partly as a consequence of that and the decline in the dollar that went along with it. We got very strong growth in the economy in the subsequent two years. I don't see that happening right now, but I think it's something that we ought to think about as--

MR. ANGELL. But, Don, real GNP was negative in the second quarter of 1987.

MR. KOHN. That's in the second quarter. I think with the lags in the system, Governor Angell, that the real effects were out after the [second quarter.]

MR. JOHNSON. Yes, I'm just saying, though, I agree if we didn't appear to be trying to accommodate every bit of it you could expect that that still may mean that you would accommodate some of it.

MR. KOHN. You could have lower nominal interest rates. And all I was arguing for was a very cautious approach to that, if that's the way things--. I would drag my feet.

CHAIRMAN GREENSPAN. Any other questions for Don? Why don't we start the Committee discussion? Let me start off. I think the crucial question we have to ask ourselves is: To what extent has this been luck or successful policy? It's probably a bit of both; I don't think we can segregate the two effects, as Ed pointed out earlier. But what is important here, as I see it, is that to the extent policy has been the source of this slowing, then it's very crucial that we not be perceived as weakening prematurely. As best I can judge, it's extraordinarily difficult to manage a gradual unwinding of the economy from the types of imbalances we currently have. There is very little evidence [currently] of the type of sharp expansions, construction booms, or inventory accumulations that are capable of reversing very quickly. And so long as those types of dangers are not there, it's very difficult to imagine--from where we stand--the types of developments that would bring the economy down quickly from here. If this is true, it is in a sense saying that what we're going through is a pause, and that the slowing is likely to diminish rather quickly. I think that what we're probably in the process of seeing is that the slowing of the spring and early summer is probably coming to an end because we still have very high [delivery] backlogs. We still have momentum in the system, and we still have some very strong numbers in the capital investment area. What has not been mentioned today is the reading on second-quarter capital appropriations, which I found rather impressively strong especially following what probably is a statistical weakness in the first-quarter data.

In any event, as I have listened to the discussion today, everyone seems to be generally satisfied that we are in relative balance and that no significant policy action seems to be desired. I would conclude from that that we probably ought to stay precisely where we are--meaning the same directive as the last time, with asymmetric language towards firming. If for no other reason, if the Fed has been perceived of as being a restrainer of inflation, a restrainer of imbalances, there are probably far greater risks in just the psychology of perception if we go from asymmetric to symmetric language. Even though it will not be released for a number of weeks, the markets will read a symmetric directive as though we are in the first stage of backing off. That statement is not a forecast of the direction of the next significant monetary policy action or a prediction that the markets would probably read far more into a symmetric directive than we would anticipate, but I would hope that we could stay pretty much with the language we adopted the last time. My suspicion is that, as we come out of this slowing, we will probably find the staff's forecast to be relatively close to the mark. I might add parenthetically that there's a strong first-quarter GNP in the staff's forecast, which I believe is wholly the result of expected statistical adjustments to the GNP data to show a liquidation of farm inventories in the fourth quarter and a sharp increase in the first quarter. And no farmer in the country will recognize those numbers. Governor Heller.

MR. HELLER. I can certainly support that suggestion. You didn't say anything about the federal funds rate associated with it. I would hope that would be back into the middle of the range that we

had anticipated for the federal funds rate when we approved the last directive.

CHAIRMAN GREENSPAN. I would think--based on Mr. Kohn's remarks--that the current funds rate is perceived as being somewhat abnormal, if that's not an exaggeration with your insights.

MR. HELLER. Thanks.

CHAIRMAN GREENSPAN. President Melzer.

MR. ANGELL. You support borrowing of \$600 million?

CHAIRMAN GREENSPAN. Yes, it's essentially--

MR. JOHNSON. Well, that's the question I think. Well, I think what he's saying--

MR. HELLER. What I'm really saying is supporting the funds rate at somewhere, well at about 1/8th.

MR. PARRY. That seems to raise a lot of issues.

MR. BLACK. Well, it's been the day to do things.

CHAIRMAN GREENSPAN. The Desk will endeavor to implement--if everyone is agreeing--policy in the manner in which it has been recently implemented.

MR. ANGELL. You mean \$600 million is the borrowing target?

CHAIRMAN GREENSPAN. \$600 million is the borrowing target.

MR. ANGELL. Okay.

MR. JOHNSON. That's the decoded part of it!

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. I'm in agreement with what you suggested, although I wanted to register a mild note of concern. I have been surprised at the extent to which money and credit have flattened out since July and August. I think it's a coincidence largely that it happened to be around the time of the discount rate increase; but then again, because of all the fragilities out there, perhaps the increase had quite an expectational impact. I'm sure it also reflects some of the lags of what we've been doing; but if you look over the most recent three months or so, the thrust of policy as reflected by the monetary base, that growth has been relatively slow, and reserves have actually been shrinking. I don't think it's time right now to do anything about that, particularly with the dollar under pressure, but it does concern me because I don't think by any stretch of the imagination that we have whipped the inflationary pressures that we've seen. If we get way out of position, if you will, in the short run in policy--and subsequently we're forced to reverse policy very sharply for short-term reasons, it's going to make the long-term battle a lot more difficult to win. So, that's just a note of concern. I would support what you said.



CHAIRMAN GREENSPAN. I don't think anyone would disagree with the way you put it. President Morris.

MR. MORRIS. Well, Mr. Chairman, I support your position despite my longer-term concerns. I think at the present juncture there's no basis for changing monetary policy.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Mr. Chairman, I also would be in agreement with what you recommend. I might have come prepared to argue for shifting language to symmetric, but I don't feel strongly about it. But I do have a question about the borrowing level. The \$600 million-- we have been through a period where the borrowing level has been at \$600 million with a significant seasonal component. I meant to ask Peter about this earlier. I have a feeling that at this time each year as the level of seasonal borrowing comes down, the level of adjustment borrowing builds up. But there's a possibility that this shift in composition of borrowing may have caused the federal funds rate, for this and other reasons, to be a little bit higher than our anticipation. And if this is the case then maybe we need to think about a precise borrowing number.

CHAIRMAN GREENSPAN. We have been thinking about that a great deal and doing a lot of testing. I don't know whether or not we've come up with a final conclusion on this, but that's an issue which is absorbing a good deal of time for Mr. Kohn and his colleagues.

MR. KEEHN. But on the anticipation that \$600 million is consistent with 1/8th or 1/4th, that's what I would favor.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. I agree with your recommendation.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Mr. Chairman, I agree with your recommendation, too. I'm very sympathetic to what Tom Melzer has said, though. We can probably explain the weakness in the aggregates, and the early increases in short-term rates up to this point, but next meeting I will be in favor of a symmetric directive if the weakness in money continues for another month. For now, I would agree completely with what you recommended.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. Mr. Chairman, I think we're going to have to make a move fairly soon, but I don't think this is the time to do it. I think the risk is still on the upside. So, I would agree with your prescription. And I think it's very, very important that we maintain the asymmetric directive.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. Well, I guess my views haven't changed much. Although I do have concerns about what Governor Johnson discussed, some flattening of the yield curve, I think that does provide some

information. Also, no growth in M1 and very low growth rates of M2 cause me some difficulty. We ran the Rasche model and we got, using Board staff assumptions, 6.6 percent growth in the monetary base in 1988 and 5.4 percent in 1989. That gives me some degree of comfort that the policy path would not be abrupt. Given where the staff has M2 growth near year end, and given that I think that would probably be an appropriate growth rate to see in 1989, I certainly can live with your proposal.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. I'm very sympathetic with Tom Melzer and Bob Black, and with Lee Hoskins's questions about money growth. I think the 2-1/2 percent growth rate of M2 from September to December in alternative "B" is just fine. I would be somewhat uneasy if we were to get lower growth than that. I would not like to see those growth rates get down close to zero over a period of time because I believe that would cause some bounce-back. If that low growth were to be the case, then I think we really ought to talk about it before the next meeting; that is, I think we ought to have a conference call. On the other hand, if the aggregates begin to snap back faster than the staff is projecting, then I would want to be very alert to a possibility of tightening because I think where we are is just fine. Now, I have to admit that what I'm saying is really consistent with symmetric language, not asymmetric. And my caution would be that we use the appropriate language here; that is, I would like the market to learn that when we say we're asymmetric that we have a feeling that things are going to change. I don't think that's the case here, and so I would slightly prefer--not enough to vote against an asymmetric directive--but I would slightly prefer to have it be symmetric. Also, I think that when this directive is announced in December, if we haven't changed policy then the fact that we were symmetric won't even be noticed. On the other hand, if we have tightened, nobody is going to care what we were at this point; and, in the unlikely event that we have to ease, we would look a little smarter. So I think there's a fair case for symmetric language.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. Yes, I'm certainly willing to stick with alternative "B". I would note that my remarks about signs of less robust business growth and the performance of monetary aggregates have been pointed out by some others as well. I don't think anyone has mentioned that there are financial market participants who thought, as of a couple of weeks ago, that we had tightened monetary policy somewhat when they saw the federal funds rate creep up to 8-1/4 percent or above. So I think I can vote for alternative "B" but I feel fairly strongly that there should be symmetric language rather than asymmetric. And if the \$600 million borrowing target were to mean a federal funds rate of 9-1/2 percent, then I would have a problem with that.

MR. ANGELL. Some of the rest of us might, too.

MS. SEGER. I wasn't sure.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. I support your recommendation and would only add that I think Governor Angell makes some valid points about the value of the language in the directive. But it does seem to me that asymmetric language remains appropriate at this juncture as I gauge the risks.

CHAIRMAN GREENSPAN. President Boykin.

MR. BOYKIN. I would agree with your policy prescription, Mr. Chairman.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. I also support this directive. I think I can support the directive as long as over the next intermeeting period we're not likely to be confronted with any possibility of easing. And I think that's probably a very good possibility. But I do have a little sensitivity to what Tom Melzer said, because I don't think the probability really is zero that some unforeseen event might surface; and I think we may be living a little close to the edge, although part of it may be statistical aberrations. The Chairman pointed out that the farm situation is subtracting from fourth-quarter GNP and adding to first-quarter 1989 GNP; I think estimates are for about minus 1-1/4 percent or something like that from the fourth-quarter growth rate. And given the third-quarter starting point, the economy must grow a lot over the next three months to exceed the third-quarter's midpoint. And I'm concerned that we might find ourselves, at least statistically, in a situation that would not lead us to change policy but certainly could create some perception problems. Statistically, we could end up with a flat or slightly negative quarter in the fourth quarter with the drought adjustment; but I don't think that result will be anything fundamental and will be made up in the first quarter. I'm comfortable with asymmetric language, but I think if we found ourselves in a situation where there was a need to ease--even if it were only a slight easing--it would be uncomfortable given that language. So maybe we ought to consider that possibility seriously, if things don't change by the time of our next meeting. But I can live with asymmetric now.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Mr. Chairman, I support your recommendation, but I am sympathetic with those who expressed some interest in going to symmetric language both on the basis of what might be happening in the economy and also watching very carefully what happens to the aggregates in the upcoming period. But for now, I fully support your recommendation.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. I support your recommendation.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, I support your recommendation, particularly the asymmetric language. One point I'd make is that I have a greater emphasis on hitting the \$600 million borrowings target. It seems to me it's not really necessary to worry about a federal

funds rate which differs by an 1/8th or 1/4th from what statistical relationships would seem to indicate between borrowings and the funds rate.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. I support your recommendation, Mr. Chairman. I came in with some feeling of moving to a symmetric directive, but I have no quarrel with keeping it asymmetric for this time.

CHAIRMAN GREENSPAN. Governor LaWare, do you want to--

MR. LAWARE. I agree and support the asymmetric language.

CHAIRMAN GREENSPAN. As I hear it, we have a significant concentration on repeating the directive of the last meeting. I ask the Assistant Secretary to read it again.

MR. BERNARD. In the implementation of policy for the immediate future, the Committee seeks to maintain the existing degree of pressure on reserve positions. Taking account of indications of inflationary pressures, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, somewhat greater reserve restraint would or slightly lesser reserve restraint might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of M2 and M3 over the period from September through December at annual rates of about 2-1/2 and 6 percent, respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of 6 to 10 percent.

CHAIRMAN GREENSPAN. Call the roll.

MR. BERNARD.

|                        |           |
|------------------------|-----------|
| Chairman Greenspan     | Yes       |
| Vice Chairman Corrigan | Yes       |
| Governor Angell        | Yes       |
| President Black        | Yes       |
| President Forrestal    | Yes       |
| Governor Heller        | Yes       |
| President Hoskins      | Yes       |
| Governor Johnson       | Yes       |
| Governor Kelley        | Yes       |
| Governor LaWare        | Yes       |
| President Parry        | Yes       |
| Governor Seger         | I'm torn. |

MR. HELLER. Abstain.

MS. SEGER. Yes, can I abstain? No, last time I went along with it and the asymmetric language even though I didn't want the asymmetric. So, this time I'm willing to go along except that I have such a problem with the asymmetric. I think I will dissent, since I can't vote 50-50.

CHAIRMAN GREENSPAN. Our next meeting date is scheduled for December 13 and 14. It will not be known for a few days at least whether or not the 13th will be necessary. So, I request that you hold the 13th open until you hear specifically whether or not that date will be necessary. The evening of the 13th we will have an FOMC dinner in which we will give our best to our longest-serving member, Frank Morris, who has attended his last meeting today. Frank has served for more than 20 years, during which there were 210 regularly scheduled meetings, and it appears that he missed only one meeting. I think that's an extra-ordinary record. No question we are all going to miss you, Frank, but we will get a chance hopefully to see you at dinner on the 13th. If there are no further items of business, the meeting officially is adjourned, and lunch is served.

END OF MEETING