

Meeting of the Federal Open Market Committee

July 7, 1987

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, July 7, 1987, at 10:30 a.m.

PRESENT: Mr. Volcker, Chairman
Mr. Corrigan, Vice Chairman
Mr. Angell
Mr. Boehne
Mr. Boykin
Mr. Heller
Mr. Johnson
Mr. Keehn
Mr. Kelley
Ms. Seger
Mr. Stern

Messrs. Black, Forrestal, and Parry, Alternate
Members of the Federal Open Market Committee

Messrs. Guffey, Melzer, and Morris, Presidents of the Federal
Reserve Banks of Kansas City, St. Louis, and Boston,
respectively

Mr. Kohn, Secretary and Staff Adviser
Mr. Bernard, Assistant Secretary
Mrs. Loney, Deputy Assistant Secretary
Mr. Bradfield, General Counsel
Mr. Truman, Economist (International)

Messrs. Lang, Lindsey, Prell, Rosenblum, Scheld,
Siegman, and Simpson, Associate Economists

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

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

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Mr. Coyne, Assistant to the Board, Board of Governors
Mr. Promisel, Senior Associate Director, Division of
International Finance, Board of Governors
Mrs. Zickler, 1/ Assistant Director, Division of Research
and Statistics, Board of Governors
Mr. Brady, 1/ Economist, Division of Research and Statistics,
Board of Governors
Ms. Low, Open Market Secretariat Assistant, Office of
Board Members, Board of Governors

Messrs. Hendricks and Stone, First Vice Presidents,
Federal Reserve Banks of Cleveland and Philadelphia,
respectively

Messrs. Balbach, Beebe, Broaddus, J. Davis, T. Davis, and
Ms. Tshinkel, Senior Vice Presidents, Federal Reserve
Banks of St. Louis, San Francisco, Richmond, Cleveland,
Kansas City, and Atlanta, respectively

Mr. R. Davis, Senior Economic Adviser, Federal Reserve
Bank of New York

Messrs. McNees and Miller, Vice Presidents, Federal
Reserve Banks of Boston and Minneapolis, respectively

Mr. Keleher, Research Officer, Federal Reserve Bank
of Atlanta

Mr. Guentner, Manager, Federal Reserve Bank of New York

Transcript of Federal Open Market Committee Meeting
of July 7, 1987

CHAIRMAN VOLCKER. It's appropriate to say a word before we start about Arthur Burns' passing. He sat at this table with many of us for a good many years. He sat over there about where Bob Black is; the seating has been rearranged since then. I don't know whether that had any implication for policy when the Chairman sat over in that area. But he was a very forceful Chairman who had a great dedication to the Federal Reserve and to this Committee. I think you have been notified that there is a memorial service on July 22 at 11:30 in the morning at the Temple here in Northwest Washington. If people can make that, I think it would be greatly appreciated. With that, we can get started and approve the minutes.

MS. SEGER. I'll move it.

CHAIRMAN VOLCKER. We have a second. The minutes are approved. May we have the report on foreign currency operations?

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

CHAIRMAN VOLCKER. If I may interject before we discuss this: I was so preoccupied with Arthur Burns that I forgot to welcome Mike Kelley to the table this morning. Sitting there, you're almost [unintelligible] now as a governor; so, I say welcome. The plan of attack this morning and tomorrow is that I will interject the discussion on this report on borrowing that you all have after Mr. Sternlight gives his report and we have the discussion on the Desk's operations. That's the logical place to do that. We will break for lunch at about 1:00 p.m. and discuss extraneous matters informally, as we usually do, and then go back into session. If we finish this afternoon, fine; if we don't, we will reconvene tomorrow morning. And if the discussion proceeds beyond 11:00 tomorrow morning, it will be without a Chairman, which may be an advantage for some of you. Let's proceed to the questions or comments on Mr. Cross' report.

MR. BOEHNE. Sam, on this re-emergence of two-way risks, would you categorize that as a fragile re-emergence or does it look fairly good to you? How is it categorized?

MR. CROSS. Well, I think it is still somewhat fragile. As I said, I think the market paid a great deal of attention to, and was reassured considerably by, the willingness of the Federal Reserve to snug because of the dollar. Looking ahead, it's not clear that the market would feel that there will be the same kind of maneuverability or ability to untighten. I think, for the present, that we have quite a healthy sense of two-way risks in the market. But there is some skepticism; there are these feelings out there that some action will be taken, either in intervention or another area, if the dollar moves up very far from its present level. And as I said, if that should happen, I think what the trading community then would start to do with respect to [unintelligible] on the downside. So, I think we have a period of stability now, or even firmness, and this may continue for a period. Looking beyond that, there is still negative sentiment about the dollar because of the lack of any clear evidence of major adjustment in our current account position. And I would characterize the present sense of two-way risks as still rather fragile.

MR. JOHNSON. In discussions yesterday, the staff pointed out that for the second quarter we could get more negative current account numbers, which could have some effect on that sentiment. I take it the oil-price situation has been driving a lot of the current account; it has been dominated by that. Even though non-oil exports have been rising, the whole thing has been overwhelmed by oil volume, to some extent. I take it the second quarter is going to produce a worsening current account balance number and that might add to some of the sentiment. Is there any perception that--

CHAIRMAN VOLCKER. We just have one month of [data for] the second quarter right now.

MR. CROSS. We have one month of trade figures.

MR. TRUMAN. Governor Johnson, I'd note that most of this deterioration in the current account in the staff forecast is in the non-trade current account items. It is true that there's a slight deterioration in the trade balance, which is based on one month, but it's essentially flat--

MR. CROSS. There's no question that people are talking very, very intently about what these trade figures will be on the 15th of July when they come out.

MR. JOHNSON. I take it we're forecasting a worsening on the current account number?

MR. TRUMAN. That's right. But the current account number for the second quarter isn't going to appear until September--even assuming that we are right.

MR. JOHNSON. Yes, but that's not that far away. I'm just saying that September, assuming we're right, could be the period you're talking about, then. Right now there is a good healthy two-way risk on the exchange rate, but I'm just saying that there might be some numbers in the future that hinge on that; I don't know. If this is going to be an uneven path on the way to improvement, maybe the markets recognize that but maybe they don't.

MR. CROSS. Well, I think they recognize that in volume terms there has been some improvement. But they also recognize that in nominal terms there has been very little improvement, if any. And that, of course, is what you have to finance. Sometimes market participants over-interpret these figures and sometimes they respond by kind of knee jerk [reactions]. So, I think if we have bad trade figures next week--really bad trade figures--that could change the picture from what it is.

MR. JOHNSON. We're getting numbers next week?

MR. CROSS. On the 15th.

MR. BLACK. What is your guess on what those numbers will look like?

MR. CROSS. The market is expecting [a deficit of] about \$14 billion, I think.

MR. TRUMAN. I would say that April was somewhat over-interpreted--that is, as listed in the forecast. That [deficit] number on a balance-of-payments basis was something like [an annual rate of] \$140 billion and we have a little over \$150 billion for the quarter as a whole. We think that May and June will be not as good as April, but not dramatically different in terms of the monthly figures. But to the extent that the market has been extrapolating the trend as the numbers came down in February, March, and April, even a leveling off [in the trade deficit] might produce some degree of disappointment.

MR. KEEHN. Sam, I suppose it's hard to forecast, but on the element of downside risk, has there been some improvement this time versus, say, the past several weeks? Is the downside risk about the same as it has been or has there been some fundamental improvement to relieve that?

MR. CROSS. I'm not sure I understand.

MR. KEEHN. Well, at the last few meetings we have been very concerned about the precipitous free fall, if you will, [of the dollar.] There seems to be some improvement in tone, but I think you're questioning that. And I wonder whether the downside risk now is as great as it has been.

MR. CROSS. Well, no, in the sense that we are now comfortable with pressures not moving one way or the other. At some of these earlier meetings we had been sitting here with very heavy downward pressure facing us and the intensification of that raised much more serious problems.

CHAIRMAN VOLCKER. We have a lot on this in the presentation to be given later, I guess?

SPEAKER(?). Yes.

CHAIRMAN VOLCKER. I suggest we defer these general discussions of the balance of payments outlook on the dollar until later. Are there any more operational comments or questions?

MS. SEGER. I have one. When you refer to market sentiment, since there are obviously many hundreds or thousands of participants in the foreign exchange markets on any given day, are you talking primarily about traders that are commercial bankers in this country, or commercial bankers from abroad, or corporate treasurers, or central bankers, or all of the above? I'm just sitting here trying to get a flavor of what are you basing your sentiment comments on.

MR. CROSS. You're right that there are probably ten thousand people out there in this market and nobody can synthesize the view--

MS. SEGER. Right.

MR. CROSS. Except that the market reflects the view.

MS. SEGER. Yes.

MR. CROSS. We do talk to large numbers of traders all day long. We talk to central banks all around the world and get their assessment of what's going on in their markets and we talk to commercial bankers and others here. And we try to keep up with what the economists are saying and absorb these various views to the extent we can. Now, there are times when a view sort of gets moving and the markets seem to all act like turkeys and fly in the same direction.

MS. SEGER. Right. I sensed that last time.

MR. CROSS. So one can profess a market view. But I don't think anybody can profess to be very confident at any one moment about what all these many different players are thinking. But we do the best we can by talking to many different kinds of operators. We also talk to treasurers of corporations about what they're doing.

MS. SEGER. Isn't it true that they are more important players on the scene now than they used to be 5 or 10 years ago?

MR. CROSS. They're certainly more important than they used to be. The market has gotten a lot bigger and a lot more complex; and it involves a lot larger universe than it did some years ago.

MR. HELLER. Sam, do you see any changes in the pattern of the inflows of foreign capital?

MR. CROSS. We can't really tell very much about it, but what we hear is that it's still fragile. Even if one is buying a long-term bond, that's not a long-term investment. There is not a lot of assurance that these present exchange rates are stable enough for one to be entering into a lot of long-term investments with assurances that there are not going to be further changes. At least that is what a lot of people tell us.

MR. HELLER. Well, I meant mainly geographically--the Japanese versus the Europeans who--

MR. CROSS. The Japanese, of course, are key because they are such big players. In the early part of the year, they had long-term outflows of \$10 billion in January and another \$10 billion in February. In March it fell down to about half that and in April it disappeared entirely. In May it has come back up and the last reports were that in June it was even bigger than ever--\$13 billion. So the amounts seem to have come back up to very substantial levels. But the question is how solid that is now.

CHAIRMAN VOLCKER. The Japanese long-term rates were going up in this period when they resumed their investment in the United States, presumably?

MR. CROSS. Right. The Japanese long-term rates have gone up by about 1/2 point during this period and ours have come down some. If you want to look at it in terms of differentials, at the beginning of the year the differential between U.S. and Japanese long-term rates was about 2-1/4 percentage points. It went up to as high as 6 percentage points and now it's down to about 4-1/2 points--maybe a little below that. So, it's still a lot higher than it was in the

early part of this year, but it's well down from the peak that it reached in May.

MR. JOHNSON. As long as there's no major downside exchange rate risk that might be plenty.

MR. CROSS. I think the exchange rate is the key part of the equation, yes.

MR. JOHNSON. Yes.

MR. HELLER. And the stock market in Japan, probably?

MR. CROSS. The stock market in Japan has declined somewhat. It got up as high as about 26,000; it's now about 24,000 or so--down maybe 10 percent, which is substantial. And the Japanese have been very worried about the liquidity in their whole economy, as reflected both in the stock market and the real estate market. It is a very worrisome and dangerous thing. That's one of the reasons why there are questions about what they should be doing in terms of their own longer-term ranges.

CHAIRMAN VOLCKER. We need to ratify the transactions.

VICE CHAIRMAN CORRIGAN. Move it.

MS. SEGER. Second.

CHAIRMAN VOLCKER. Without objection. Mr. Sternlight.

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

CHAIRMAN VOLCKER. Questions or comments? If not, we will ratify the transactions; that is all we have to do here.

VICE CHAIRMAN CORRIGAN. So move it.

MS. SEGER. Second.

CHAIRMAN VOLCKER. Without objection. Why don't you introduce this report on borrowing just very briefly, Mr. Kohn?

MR. KOHN. Okay, Mr. Chairman. The report was requested in response to some questions that arose over the previous intermeeting period--and perhaps really since last fall as well--about the kinds of federal funds rates and pressures on reserve positions we were getting relative to what the Committee and the Desk had specified. The paper breaks down the difference between actual federal funds rates and those that you might have expected to be associated with an intended level of borrowing into two separate kinds of misses. One is the miss that stems from the relationship between actual borrowing and the funds rate that comes to pass. We found that that was a pretty loose relationship. There was a standard error of about 60 basis points; two-thirds of the time you could expect to be plus or minus 60 basis points from the mean on that. There's a lot of short-term noise in that relationship, having to do with the pattern of reserves shifting, unusual borrowing that might occur, the pattern of reserve provision, actual demand--

CHAIRMAN VOLCKER. Is that on a weekly-average basis?

MR. KOHN. A two-week average. There are also some longer-term shifts in that relationship. One was identified during the period of the Continental Illinois crisis, when banks obviously became more reluctant to use the discount window because they were concerned about being seen as borrowing in that period. More recently, a smaller shift occurred last year when banks' desire to borrow also seemed to be less than might have been expected based on the long-term average.

A second source of misses involves a deviation of actual borrowing from the borrowing that was intended, that is, the borrowing level that was put in the path. There we can have misses in excess reserves and estimates of excess and required reserves. Once again, the pattern of reserves provision and borrowing in the period can give rise to these sorts of misses. I think an important finding in the paper is that there tend to be some offsets among the different kinds of errors that can be found in this relationship. So, the looseness of a piece of the relationship--say, the relationship between borrowing and the funds rate spread--viewed by itself does not show through to the differences or the looseness between the actual funds rate and the funds rate that was anticipated by the Desk. There are actions by the Desk in supplying reserves and by the market in keeping the funds rate at levels that it believes consistent with the Desk projection that tend to reduce quite substantially the standard errors associated with the difference between realized funds rates and funds rates anticipated by the Desk. In the end, I think the relationship looks loose, but not all that loose. The current operating procedures, and the Desk and market actions that go with them, do provide an anchor to the federal funds rate. But there is room for market forces or for unanticipated misses in reserves to show through in this relationship. Sometimes that can occur in desired ways: that is, the market can push us toward higher or lower funds rates in anticipation of something we might end up doing; sometimes it could move the other way.

With regard to the last intermeeting period, the problem was primarily the difference between the actual borrowing that occurred and the borrowing that was in the path. I think there were several particular problems that built on themselves in that period. One was the problem with the Treasury balance and the tax payments, which both built up the required reserves much higher than anyone had thought and drained more actual reserves than anyone had estimated as the Treasury balance came through. As a result, through almost the entire period the Desk found itself fighting reserve shortages, and much larger reserve shortages, than anyone--the Desk, the New York Fed, the Board, or the Treasury--was estimating. So it was constantly behind in that way. Secondly, of course, there were a lot of market expectations at that time that we would be firming. And the markets tended to push the federal funds rate up in anticipation of some firming of policy, given what was happening to the dollar and inflation. In some sense, I think borrowing rose in response to the market's push of the funds rate up; there was extra inducement to borrow at the window. So, there were a number of factors that came together in the intermeeting period before the May 19th meeting that tended to give much larger misses between actual and intended borrowing than we ever had experienced before, except at year-end periods.

CHAIRMAN VOLCKER. Comments?

MR. JOHNSON. First, I want to say that I found this to be a really outstanding review of the issue and a very good report. For our own purposes, it might be useful to go through this exercise every so often to re-address the issue and to feel comfortable with it. I think it was very useful. I don't have any major questions; the study pretty much explains a lot. But a couple of things struck me as I read through this that I wanted to bring up today. One is that I noticed, at least over the period I looked at, that there appeared to be an upward bias in actual borrowings relative to predicted. This was only over about a 3-1/2 year period, I think--

CHAIRMAN VOLCKER. Relative to intended?

MR. JOHNSON. Yes--relative to intended. I wonder if you have a good feel for what might be causing that? I think the Chairman mentioned yesterday a very plausible explanation for certain periods: obviously, when you get to very low frictional levels of borrowing--when you're targeting something like \$300 million or less--the bias is going to be on the upside because there's not a lot of downside opportunity. But there's a positive bias that appears to occur over a long period. Chart 2 summarizes the information, and it does tend to show that when targeted borrowing levels were fairly low, that's when a lot of positive bias occurred. But I wonder if you went back over a longer period if you'd still see that positive bias and if it's related also to periods when targeted borrowings were very high.

MR. KOHN. I'm not--

MR. JOHNSON. If you look at chart 2 you can see a positive bias there. I just wonder what you sense there.

MR. KOHN. I think a lot of the bias occurs in 1985, abstracting from the most recent period, which is a separate subject.

MR. JOHNSON. Right. And borrowings were averaging fairly low.

MR. KOHN. Our findings were that low borrowings versus high borrowings didn't really affect that funds rate relationship very much. However, when borrowings are low, there is a tendency to come in a little high because if something unusual occurs--for example, a computer breakdown where some bank doesn't receive a wire and does just a little borrowing, particularly if it happens over a weekend--it can give a big boost relative to a very low two-week average.

MR. JOHNSON. Yes, I agree. It just seems to me that that ought to be factored into the expected borrowings to some extent.

MR. KOHN. We often do that. Peter Sternlight can comment on this. When we have an unusual amount of borrowings that pushes up borrowing relative to what we expect, we can't take it into account ahead of time because by its very nature we don't anticipate it. But Peter often takes that into account in his intentions through the rest of the period. I think that's one of the offsets that we get that keeps the funds rate close to [expectations]. As for the 1985 period, one thing that was going on then was that excess reserves were rising

through that period more rapidly than we were expecting them to. We kept writing up the excess reserves numbers incorporated into the path; but, in some sense, we were lagging a little behind as that was happening. So I think that period has a particular explanation.

CHAIRMAN VOLCKER. Well, the question remains--and you may not know the answer now--but the one period on this chart when borrowings were fairly high, which was in 1984, that bias didn't seem to exist. Is that typical, in fact, of other periods when the target was \$900 million, or \$1 billion, or \$1-1/2 billion?

MR. KOHN. I don't know; we can find out.

MR. JOHNSON. It would be interesting to know that. I have two other questions. One major issue is this: I realize that there's a standard error plus or minus--I'm talking about borrowings relative to the funds rate and the standard error you mentioned of about 60 basis points--that creates noise in the system. If so, there's a certain amount of that noise that we have to accept; but that's plus or minus. There's a difference between that and the long-term issue of when we detect some sort of shift. I think the question arises there [unintelligible] policy shifts, that we're making a monetary policy adjustment whether we are doing anything or not. And the question is: If we detect a long-run shift in the borrowing function should we try and offset that in some way? Otherwise, we really accept a policy adjustment because nonborrowed reserves are going to be lower or higher.

CHAIRMAN VOLCKER. If you equate policy with interest rates.

MR. JOHNSON. Well, yes, but nonborrowed reserves would be affected.

CHAIRMAN VOLCKER. [Unintelligible.]

MR. JOHNSON. Maybe borrowings wouldn't, but the nonborrowed path would be affected to some extent. So I don't know--

CHAIRMAN VOLCKER. This question arose in the summer of '84, for instance. We got a much higher funds rate at a given level of borrowings than we had anticipated.

MR. JOHNSON. My question is: What do we do about it when we decide that there has been a long-run shift in the function or when there's a consensus that that has developed? I guess it's just something that ought to be brought before the FOMC, to acknowledge there's a shift and then--

CHAIRMAN VOLCKER. It sure is [unintelligible] when it has already been that for a while, that's--

MR. JOHNSON. Sure it has.

MR. STERNLIGHT. It seems to me that it is the nature of the Bluebook discussion to bring that kind of shift to the Committee's attention in a normal way before it's in the--

CHAIRMAN VOLCKER. To some degree this question arises at every meeting.

MR. JOHNSON. Sometimes, though, we don't have enough information to decide whether it's just noise or real--

VICE CHAIRMAN CORRIGAN. Well, that's usually the case.

MR. JOHNSON. That's usually the case, yes. The last question that I had was about seasonal borrowing. It seems to me that there's always been a bit of a question about whether seasonal borrowing should be included and, if so, to what extent.

MR. KOHN. Our findings are that seasonal borrowing is interest sensitive--sensitive to the spread. It's not quite as interest sensitive as adjustment borrowing but, as I think is pointed out in the footnote here, when we fit the whole equation--total seasonal and adjustment borrowing--on the spread, we cannot find a seasonal influence that is separate from the influence of the spread. So, from that kind of finding, it would appear that including or not including seasonal borrowing wouldn't significantly affect--

CHAIRMAN VOLCKER. What did you say? There's no seasonal in seasonal borrowing?

MR. KOHN. Well, there is a seasonal in seasonal borrowing, but it's not large enough to come through in the overall--. When we look at seasonal borrowing by itself we find a significant seasonal; but when we lump it in with adjustment borrowing that seasonal gets swamped by all the other--

CHAIRMAN VOLCKER. But isn't that because we're aiming at a total borrowing figure including the seasonal? Otherwise, we offset the seasonal in the seasonal.

MR. LINDSEY. Well, it's looking at borrowings as they relate to the spreads. So, what we're looking for is the seasonal in that relationship, not just in the quantity per se. As Don said, in that relationship for the total adjustment plus seasonal borrowing we're not able to pick up statistically significant seasonal effects, though they do appear in a seasonal borrowing relationship.

CHAIRMAN VOLCKER. You say your relationship between the borrowing total and the funds rate doesn't change seasonally?

MR. LINDSEY. In a systematic way, that's what we find.

CHAIRMAN VOLCKER. Even though the seasonal total itself is seasonal?

MR. KOHN. Yes. In effect, we're saying that the seasonal influence isn't strong enough to push the whole thing around. The Desk actually has a different view of that. Frequently, they see a higher seasonal [influence].

MR. JOHNSON. But you're saying whether we include it or not, it's not really an important--

MR. KOHN. Clearly, it works in the direction that in the summer--the seasonal peak is usually in July and August--we would have less adjustment borrowing and potentially a slightly lower federal funds rate than we would in the middle of the winter for a given level of borrowing.

CHAIRMAN VOLCKER. I forget: How much does the seasonal borrowing swing in a normal year? Is that [unintelligible] or something?

MR. KOHN. Yes, close to it. It would have a trough of \$100 million and a peak of \$300 million, and in a tight year such as 1984, maybe \$400 million.

MR. JOHNSON. So you don't think that taking it out would have any effect on the standard error?

MR. KOHN. I guess, consistent with the findings, it wouldn't reduce it very much.

MR. JOHNSON. But I think we did say--

MR. ANGELL. But the problem is--

VICE CHAIRMAN CORRIGAN. But if we got to a lower level of borrowings that would probably aggravate the problem you were just talking about before. In other words, there would be less cushion.

MR. JOHNSON. Yes.

VICE CHAIRMAN CORRIGAN. In terms of the overall mechanism.

CHAIRMAN VOLCKER. I certainly don't think it makes much difference if the level of borrowings is \$1 billion or something, but maybe if it is so low--

MR. ANGELL. The problem is that if you take seasonal borrowing out, it is no longer under control the same way that open market operations are. You have to ask yourself: Are seasonal borrowings more like adjustment borrowings or more like open market supply credit? And I think it's--

MR. JOHNSON. Well, that's what I was--

MR. ANGELL. The answer, it would seem to me, is that it's more like adjustment borrowing than it is like open market operations.

VICE CHAIRMAN CORRIGAN. To an extent.

MR. JOHNSON. Well, maybe we should apply some adjustment factor to it to deal with just the seasonal element. I don't know if that's possible; but if it is possible, we might be able to correct the seasonal borrowing for seasonal.

MR. ANGELL. In other words, you'd like to have the seasonal borrowing have a seasonal influence; thereby, if we had a \$500 million seasonal target, then it might be adjusted seasonally to be \$540 million or \$470 million?

MR. JOHNSON. Something like that. I don't know if it's doable; I'm just saying it's worth thinking about.

MR. ANGELL. That would tend to give you--

MR. HELLER. Otherwise, you are always counter steering with your adjustment borrowing and that's the variable that gets squeezed.

MR. JOHNSON. It's worth thinking about.

MR. KOHN. Okay. One option would be to include the seasonal in with the extended credit. We could treat it as an exogenous factor affecting "nonborrowed" reserves. That would be just targeting on adjustment credit. Our feeling is that the seasonal is sufficiently responsive to interest rates and, as I think you or the Chairman said, that its behavior is somewhere in between adjustment and extended credit, and we've included it with the adjustment credit. I think it does respond to interest rate spreads; it's not truly seasonal, that's for sure.

MR. JOHNSON. Yes. I know.

MR. ANGELL. I think it would be better to leave it in and put a seasonal factor on it than it would be to take it out and treat it like extended credit.

MR. STERNLIGHT. Governor Angell put his finger on it in saying that you need to ask if it is more like the adjustment credit or more like something that we want to compensate for totally, like the extended credit. I think it has some elements of both, and probably is closer to the adjustment credit.

MR. JOHNSON. I'm just saying that you might want to leave it in, but still make some adjustments to that number.

MR. STERNLIGHT. Yes, possibly.

MR. HELLER. The question is whether you have enough confidence in your seasonal factors to do it with any degree of precision. If you don't, then you're better off--

MR. JOHNSON. Yes. I don't want to send us off on some frivolous exercise; I'm just saying it might be worth thinking about if there's a way that you feel comfortable dealing with it.

MR. KOHN. Why don't we look a little more closely at the relationship with and without the seasonal and see whether we can come up with a plan if, after looking at that relationship, it looks like it's worth doing.

MR. HELLER. Is that seasonal borrowing also concentrated in certain institutions?

MR. KOHN. Well, it's in smaller institutions by policy-- Regulation A. It's primarily in agricultural banks, but it's also in areas that have tourism and in some other areas subject to seasonal--

CHAIRMAN VOLCKER. Did you do any study as to how sensitive, let's say, the federal funds rate is--that is, what kind of relationship you get with net borrowed reserves or free reserves instead of borrowings?

MR. KOHN. Yes, we did free reserves, net borrowed reserves, and it did not improve the relationship; in fact, it was worse in recent years. In the LRR period it was about the same; but in the CRR period the excess reserves have fluctuated and we've made more adjustments, so the free reserves--

CHAIRMAN VOLCKER. I guess if you're going to follow this general approach, it's better to target borrowings than free reserves.

MR. KOHN. We do make adjustments in the excess reserve allowance as those demands change, over time; and that would be incorporated into a strict reserves--

MS. SEGER. What do the relationships look like if you don't wash out the variations within a maintenance period? It seems to me that by averaging that you would knock off quite a bit of the variation before you do your statistical study.

MR. LINDSEY. Yes, that's right. The daily variation would be much larger than what we've shown here. We have looked at this in the past, and we've found that on settlement day over the last few years we have gotten more variation than we did previous to the introduction of CRR in 1984. On the other hand, the quarter-ends (except for the year-ends) seem to be somewhat muted by the two-week period.

MR. PARRY. Don, your work indicates that the relationship between the spread and borrowing is linear. Is it more reasonable to think of that as a nonlinear relationship, since banks have a tendency to become more reluctant to borrow as that spread widens?

MR. LINDSEY. In some earlier work that we did here, in connection with the evaluation of the new operating procedures in 1980, Peter Tinsley and his colleagues did estimate a borrowing function that, instead of being linear as we've drawn it, showed that as borrowings got to higher and higher levels the associated increase in the funds rate tended to rise faster.

MR. PARRY. Right.

MR. LINDSEY. On the other hand, there has been some sentiment among commenters on this memorandum, that perhaps in some of the more recent data the relationship bends the other way since, after all, as borrowings increase more and more, each \$100 million involves a smaller percentage change. So, confronted with two alternatives suggesting the opposite, we took a hard look at these data and just fit a straight line through them.

CHAIRMAN VOLCKER. Mr. Corrigan.

VICE CHAIRMAN CORRIGAN. I react to this along the following lines. The whole thing, as a matter of perspective, represents a series of technical relationships that are the first step in a long,

long, linkage between what we do and prices and all the things we really care about. Looked at in that light, I walk away somewhat amazed that it works as well as it does. Indeed, when you look at the net deviations as summarized either on chart 2 or chart 5, I'm hard pressed to conclude that any of them is likely to have any net effect on real economic variables or prices or anything else. Indeed, the deviations are in that sense, I think, astonishingly small. So, it's reassuring to me in that sense. But what is a little troubling about it to me is that it comes pretty darn close to saying that, despite all our protestations to the contrary, we're really operating on the federal funds rate.

MR. PARRY. Right.

VICE CHAIRMAN CORRIGAN. I find that troubling because we've been down that path before; and to the extent we seduce ourselves back into that I think it could come back to haunt us in the long run.

CHAIRMAN VOLCKER. Maybe I didn't read this carefully, but I came out with the opposite conclusion: that the relationship is so loose that we're not doing that.

MR. JOHNSON. I guess the point is that even if we are, we still think of the funds rate as a check against the borrowings. I know that from sitting in on the [daily] call. Many times the funds rate is used as a check to gauge whether the reserve estimates are correct. If the funds rate starts to move off from where we would have expected, given the reserve estimates, we seem to second guess our Treasury balance numbers and our excess reserve numbers and naturally assume that our reserve estimates are off because the funds rate is strange. Therefore, the Desk tends to do more or less in the open market.

VICE CHAIRMAN CORRIGAN. That's one thing. In that case, the funds rate is being used appropriately, in my judgment, as an information variable.

MR. JOHNSON. Right.

VICE CHAIRMAN CORRIGAN. It's telling you something. Indeed, some of those deviations--which, again, I regard as small in net terms--ultimately reflect a willingness to let the federal funds rate at times tell us something. But that's a little different.

MR. JOHNSON. Yes, I agree. And that's a short-term view versus a longer-term policy issue. But I'm just saying that even if we were trying to target the funds rate, the question still remains: Are we targeting the funds rate to affect the aggregates or reserves or are we just trying to stabilize the funds rate? In other words, we could target the funds rate at various levels over short periods that would affect the aggregates, and I think that's basically what we're doing, as one means of sort of trying to--

VICE CHAIRMAN CORRIGAN. That's always what I thought we were doing.

MR. JOHNSON. Yes.

VICE CHAIRMAN CORRIGAN. But when I got through reading this I got a little nervous on the other side of the ledger.

MR. JOHNSON. If you let the funds rate drift off somewhere, over the long run it's eventually going to affect the aggregates. So you can't really look at one without the other.

MR. BLACK. The most important argument for using the borrowed reserve target is that it gives us a certain amount of political insulation so that we can let the federal funds rate move more than we otherwise would be able to do. That to me is the important decision.

CHAIRMAN VOLCKER. Well, there are all kinds of interesting questions and implications toward operating techniques which I will declare after this discussion will not be acted on at this particular meeting.

MR. JOHNSON. I think you're right.

CHAIRMAN VOLCKER. I assume that the operating techniques will remain the same, for this meeting anyway. Let's turn to the economic situation. I gaze down at the other end of the table and note that we have a few other changes. You are aware that Mr. Kichline will leave us in a couple of weeks. He has been at that end of the table during my whole Chairmanship; I don't know how I'm going to get along without him but I see some able-bodied, capable people down there to lead me through this meeting anyway.

MR. PRELL. Thank you, Mr. Chairman. As usual, we've distributed to you a set of charts; they are entitled "Staff Presentation". [Statement--see Appendix.]

CHAIRMAN VOLCKER. Well, it was a comprehensive presentation, very complete in all senses. It can now be attacked. Are there any attackers? Mr. Parry.

MR. PARRY. I have two questions. With regard to the inflation assumptions for 1988 and what might be the interest rate implications: We have a forecast of inflation that is really not very much different from what you have for 1988. But to achieve that, to keep a lid on inflation, we had to generate some slack in the economy and that was done by having short-term rates--in this case the commercial paper rate--rise a little more than 200 basis points to 9 percent. In your principal assumptions you referred to an appreciable rise in interest rates over the projection period. I wonder if you could be more specific. What is the extent of that increase in rates and where would you have the commercial paper rate at the end of 1988?

MR. PRELL. We've made assumptions about both short- and long-term interest rates. As I indicated, we see Treasury bond rates moving back above the 9 percent level that we saw just recently. On the short end we are looking at federal funds trading above 8 percent by some time in 1988. That would be a shade less of an increase than you're talking about but in the same general ballpark.

MR. PARRY. I see. The second question is [about inflation.] Your forecast for 1988 has a slight upward trend in the last three

quarters in the fixed-weight deflator. And, if I remember correctly, you have import prices rising about 10 percent, the dollar declining less than 10 percent, and little slack in the economy given that the unemployment rate remains relatively constant around 6.3 percent. If you were to continue your projection beyond 1988, it sounds to me as though your forecast implies that inflation rates continue to move up in 1989. Is that correct?

MR. PRELL. I think the answer is that much would depend on such things as what happens to the dollar in the latter part of the current projection period and into 1989. Another uncertainty is, of course, what the implication of any unemployment rate level might be for inflationary pressures. But our forecast certainly hints of ongoing pressure on compensation coming from the price increases that we have forecast and the risk that if the dollar continued to decline substantially into 1989 there would probably be some further acceleration in general inflation.

MR. PARRY. But even a decline in the dollar through 1988 would probably have some inflationary impact in 1989.

MR. PRELL. That's why I mentioned it for the latter part of 1988.

MR. PARRY. Yes. Thank you.

CHAIRMAN VOLCKER. Mr. Boehne.

MR. BOEHNE. Ted, I wonder if you could comment on how you see the business outlook for some of our major trading partners, Germany, Japan, England, etc.?

MR. TRUMAN. Well, I think the answer to your question is not terribly robust. As that chart that I referred to shows, for those countries the growth is in the 2 percent range, on average. Growth in domestic demand is somewhat faster. The current situation presents a somewhat mixed picture. Germany, after a very weak first quarter, which was partly a seasonal weakness that is not seasonally adjusted [in the statistics], seems to have moved quite rapidly in the first couple of months of the second quarter, according to the available data. Unfortunately, Germany has shown more strength in their external accounts than one might want to see from our perspective. Japan, on the other hand, had a better first quarter and things seem to have become a little soggy in the second quarter. However, they have put in place the fiscal package that was announced just after the last FOMC meeting, and that was somewhat more than we had expected. That has led us to boost our forecast of growth in Japan for this year and next year. So, we have real growth in the 2-1/4 to 2-1/2 percent range in that country and in the 1-1/4 to 1-1/2 percent range in Germany. The somewhat prolonged slowdown in growth in Germany does seem to be having some effects on the rest of western Europe. I think the projection for France also has been marked down in recent months. The only country in western Europe that seems to be doing quite well is the United Kingdom. It all depends on how you read these things, but that in part seems to reflect a boost from the depreciation of the pound last year and the somewhat easier fiscal policy--they wouldn't describe it that way--that they seem to have gone into this year. We do see some drop-off in growth in 1988, in part reflecting the fact

that the economy has recovered this year. And as far as Canada is concerned, we see things largely dependent on [unintelligible]; so you find growth in the 2 percent area next year. On balance, it's not much of a favorable picture and [there's] not much scope or willingness to foster very much [further growth]. We have built into the forecast some further downward adjustment in the interest rates in these countries, though I would say it's quite modest, presumably triggered by a discount [rate cut] or [unintelligible] some exchange market pressures to bring that about. Aside from the Japanese fiscal package, which we assume will pass before the [unintelligible] go into effect, and the German tax cut that comes in the first quarter of next year, we really have no other major policy that--

MR. BOEHNE. Have you given any thought to what the implications of the outlook in the United States plus the outlook that you just gave for Europe and Japan might have on the less developed countries and their external accounts?

MR. TRUMAN. Yes, and that has deteriorated noticeably but not in demand for right now. Since April, for example, we have [been projecting] a deterioration in the current account next year of roughly \$4 billion for the [unintelligible] of the developing countries. That reflects the influence of somewhat weaker growth in the industrial world and somewhat higher interest rates and slightly better commodity prices, on average, at least relative to early April where the [unintelligible] occur. But that effect has been negative-- much of it coming from interest rate assumptions. Now, that's not enough to upset the apple cart, but it could rebalance the apples in the cart.

MR. BOEHNE. Yes.

CHAIRMAN VOLCKER. Mr. Forrestal.

MR. FORRESTAL. What surprised me about this forecast was your projection of real consumption, consumer spending. It's really a quite low level in 1988. It seems to me that on the one hand, you're projecting increased industrial production, which I would have thought would have increased disposable income, and yet you're not showing any increase in the saving rate. I would have thought that you would have a higher level of consumer expenditures. What am I missing in that equation?

MR. PRELL. Well, we have some modest growth in manufacturing employment going with the stronger industrial production but those gains are not large by any means. We see overall employment growth slowing from the pace of the last couple of years. Layered on top of what would be moderate growth in nominal personal income would be more sizable consumer price increases--not more sizable than we've seen in the first half of this year but more sizable by far than we had over the past year or two. And thus, that's eroding real income, labor income, by a substantial amount. So, as I pointed out, we have gains in income and expenditures of a similar magnitude. This is very low growth in consumption expenditures, particularly in a nonrecession period. But consumption expenditures have been very high relative to economic activity. And consumer durables have been growing very strongly. There's probably much less pent-up demand for consumer durables than there has been. We think the financial situation on the

whole is one in which we probably will not see the kind of aggressiveness of spending relative to income that we've seen over the past few years. So, that is the story behind our admittedly very weak projection of consumption expenditures.

CHAIRMAN VOLCKER. It's a very optimistic projection from one point of view. That has to happen to release the resources for the improvement in the external account and produce some savings; it doesn't produce very much. Mr. Stern.

MR. STERN. If the dollar were to level off relative to foreign currencies about where it is now, what do you think that would do to our real trade position over this forecast period and to the aggregate forecast that you have?

MR. TRUMAN. It depends a bit on what else goes along with that, in particular whether the dollar leveling off and presumably a little less inflationary pressure would lead to the same kind of interest rate projection or trend or a somewhat easier one. But, an obviously easier one needs to result in more gain on income. In terms of where you would be in the fourth quarter of next year, it would mean roughly between \$20 and \$30 billion, depending on which assumption you make on the real net export side. And it would be maybe between \$5 and \$10 billion on the current account side by the end of the projection period to keep GNP unchanged. In the worst case, using the higher number in terms of losses, if you keep GNP unchanged and you get the \$10 billion and \$30 billion (nominal and real)--if you essentially let the tighter policy show through--given the passage of the exchange rate pressures, you would lose a half percentage point or so on the level of GNP. You'll get \$5 to \$10 billion off--

MR. STERN. I guess what bothers me about this forecast is that you have the dollar going down somewhat further and interest rates higher than they were the last time we met, and you have taken something off real growth. The directions are all right but it seems to me that the adjustment is kind of small. If things work out that way, I would think we would be looking at slower growth than you have here and something that would be approaching a stagflation environment.

CHAIRMAN VOLCKER. Ms. Seger.

MS. SEGER. I have one question for Ted Truman and one for Mike Prell. For Ted: How is the rundown you gave of the growth forecast for these various major economies consistent with our expectation of a substantial pickup in exports? I keep thinking our exports have to go someplace and England isn't going to buy them all.

MR. TRUMAN. First, I think the answer to that question, and then you can ask Mike of course, is that domestic demand in these countries is growing faster--by 1/2 percentage point or more--than production in these countries. And it is the difference between domestic demand and production that is absorbing the net imports. It is generated not so much by relative income effects because of growth but price effects. To put it more clearly, it's the other side of the gap we had in the early 1980s between domestic demand and production, against a background in which domestic demand will be growing more

slowly. There is less help from income effects; [we're] relying to a considerable extent on the price effects that produce increases in exports. And as I noted, one particular problem in that area has to do with the role of protectionism, in a generalized sense, in weakening the link between relevant price changes and foreign exchange. Of course, part of the protectionism thrust comes from a "soggy" or not terribly dynamic world economy.

MS. SEGER. Well, do you think that there is enough zip or that it's not so soggy that it will sabotage our interests--

MR. TRUMAN. First of all, the growth we are anticipating over this forecast period is not much different than we've had over the past four quarters, and we have only a slightly faster pace for growth of non-agricultural exports, as we are all aware. So we're not relying a lot on that further pickup in the rate of increase of our non-agricultural exports.

MS. SEGER. But we were badgering Germany and Japan, I thought, to stimulate their economies so that there would be--

MR. TRUMAN. I believe that we're better off, in some sense, than if they had chosen for their own reasons not to accelerate the tax cut in Germany and not to adopt the fiscal stimulus in the case of Japan. But that's not enough to boost the overall level of production in those countries; in fact, as I've commented, looking out into 1988 we now see domestic demand slowing a bit further.

MS. SEGER. Okay, but it still makes me nervous.

MR. TRUMAN. I share your nervousness.

MS. SEGER. For Mike: In reading the Greenbook and other materials that were distributed prior to the meeting, there's sort of an underlying tone of an economy that's about to go into orbit. It's not stated that way, and maybe I just read it wrong, but the forecast suggests that private demand suddenly is going to explode and that there's going to be this inflationary surge. I went through all the individual numbers and thought it through in my own mind, looking at the different sectors and so forth, and I must say that I can't find one that is about to go off in a bit of robustness.

MR. PRELL. Governor Seger, if that was the impression we left, that was not our intention. As I've noted, we have in fact very modest growth of domestic spending in the forecast period. We think things may pick up a bit in the near term on the consumer side, but only because there are some autos that have to be cleared away before too long--before we get well into the '88 model year. I suppose the recent indicators on business fixed investment have been a bit cheerier and, indeed, if one wanted to be optimistic one could see some upside potential there relative to our forecast. Certainly, our forecast is considerably weaker than any of the major surveys--Commerce, McGraw-Hill, and Merrill-Lynch--would suggest for the remainder of the year. If one became particularly bullish on the basis of recent stories about the computer industry maybe we could be on the brink of another resurgence of high-tech spending. But basically, our thrust is not toward a boldness in the economy such as you've referred to.

MR. PARRY. What deflator does the Commerce Department use on their surveys? Don't they use last year's price experience?

MR. PRELL. Well, I was thinking of the nominal [GNP], but yes, the Commerce Department takes the experience over the most recent four quarters and applies that as the deflator for the current calendar year's spending. That gives us--

MR. PARRY. So they're probably overstating?

MR. PRELL. We're expecting a fairly low inflation in fixed investment prices this year. In fact, that computer factor that I mentioned for the second quarter would put equipment price inflation at essentially zero in that period. So it may be that they're not that far off; but looking at nominal spending, the trajectory implied to get their annual total is far steeper than we have in the forecast.

MR. PARRY. Yes.

CHAIRMAN VOLCKER. Mr. Keehn.

MR. KEEHN. I also have a question about the consumption expenditures, which I think look on the low side, particularly for 1988. Cross-referencing a bit between [components of] the Greenbook forecast, specifically for autos, Mike, you are forecasting an increase in auto sales next year yet durable expenditures seem awfully soft. Maybe I missed it but what is your number for autos?

MR. PRELL. Total auto sales next year are a shade over 10-1/2 million units. We have about 10.3 million units for the current year. The difference there is something of an artifact of the bulge that we had in the latter half of 1986 which borrowed some from 1987. Looking at it in terms of the year from the fourth quarter we have 10.7 million units in both years; auto sales provide essentially no contribution to growth for the period from the fourth quarter of 1987 to the fourth quarter of 1988. I would note that cars are not the only element of motor vehicle purchases by households at this time. The sales of vans and trucks and light trucks are really running quite strong and may persist; that's not something that should be ignored. There's little more I can add to what I said earlier about our consumption forecast. It's not inconceivable that consumers will not get over their increased bent for spending and that they will continue to spend. The short-run income developments, transitory for May, [could lead consumers to be] very optimistic about the future and push consumer spending up further. But we think that's not as likely as what we have forecast; we feel that the strength we've seen has been, in part, a reflection of those currents of trade movements or availability of imported [goods] at attractive prices and that has influenced a shift in the direction.

MR. KEEHN. If you have a level of doubt about any part of the forecast is this one area where your doubt level is a little higher than in others?

MR. PRELL. Oh, I don't know. I'm always very doubtful about the part that Ted is most [unintelligible]. But consumer spending is a very big sector, so a small error in one's thinking about it could have a big effect on overall GNP.

MR. KEEHN. Thank you.

CHAIRMAN VOLCKER. Mr. Morris.

MR. MORRIS. The number that I find rather depressing, and I want to make sure I understand it, is your projection that the Federal deficit next year is going to be about the same as in fiscal 1987. After \$25 billion of deficit reducing actions and after what I recall was a fairly sizable increase in the Social Security surplus--which I assume is in these numbers--we still end up with no change in the Federal deficit. And on top of that you're projecting a wiping out of the state and local government surplus, a low consumer saving rate, and some decline in the inflow of foreign capital associated with the reduction of our current account deficit. To me, all of this adds up to the possibility that we will see much higher interest rates, as a consequence of all of these forces, than you have been suggesting. Now, perhaps you didn't want to scare us but--

MR. PRELL. There is a complex of things involved here. Clearly, our overall nominal GNP growth is not very rapid relative to the kind of money that we have built into this forecast. It doesn't imply a large amount of interest rate pressure, certainly not more than we have built in. On the outlook for the Federal budget, the situation does look less favorable to us now than it did previously. In part, that's a result of our ongoing attempts to interpret the effects of tax reform; the pattern of movement from year-to-year doesn't look as favorable at this point as it did before. And, of course, with the kind of nominal income growth we have, we're not generating a tremendous growth of Federal revenues. Our Federal spending projection is not terribly robust but when we put all these things together, we come out with 1988 much closer--in fact almost identical--to what we have for 1987 now.

MR. MORRIS. I suppose what could really cause us trouble would be if the improvement in our trade picture should lead to a larger increase in business investment expenditures than we're projecting here. That would put an awful lot of strain on the capital markets with the government deficit not declining.

MR. PRELL. Yes, I think that's a possibility. We have built into our thinking some stimulus to investment coming from this improvement in manufacturing, and that's associated with the trade improvement. As we said, we think equipment spending will be fairly strong and we may see some increase in industrial construction, too, as time passes. I should note that one other factor that has changed in our thinking from earlier in the year with respect to the 1988 fiscal year budget is the higher level of interest rates that we have seen come about. We have that extended a bit into the fiscal 1988 period, so that is adding to the deficit. But in a sense that's sort of an artifact; many people would want to look at the so-called primary deficit without interest to get a better guide as to what the underlying movement is. But it's adding something significant to these numbers.

MR. MORRIS. The increase in the Social Security surplus is not a very big factor for 1988. Maybe I was--

MR. PRELL. Well, I must confess: I don't think we have specific numbers on the surplus. It's clear that the trend over the next decade or more is going to be in that direction; and for the 21st century I assume it's moving in that direction. It would be helped by the increase in Federal taxes that will occur the first of the year.

MR. MORRIS. Yes.

CHAIRMAN VOLCKER. Mr. Melzer.

MR. MELZER. Mike, I wanted to pursue your assumptions with respect to money growth and your statement earlier. You have very slow rates of growth of M2 and M3 over the projection period. As you mentioned before, I guess that's associated in part with rising interest rates and increasing velocity. First of all, what's implied for M1 growth if you looked at that? And secondly, apparently you're comfortable that the liquidity that's being provided, if you will, is sufficient to sustain the type of expansion you're projecting. But I wondered what that implied overall in terms of velocity behavior.

MR. PRELL. We think there's--

CHAIRMAN VOLCKER. Well, I could say something, but I think we'll get into this later in some more sophistication presumably than Mr. Prell has indicated.

MR. PRELL. Don Kohn has an exhibit that he'll be giving for these--

CHAIRMAN VOLCKER. I presume that Mr. Kohn's presentation is going to revolve around those issues.

MR. MELZER. Okay.

CHAIRMAN VOLCKER. Governor Johnson.

MR. JOHNSON. Ted, you said something about oil prices. I thought you said something about rising oil demand so that we have potential upside risk on the price level. But we have a very depressed level of world demand it seems; I'm wondering where the rise in oil demand would come from out of this whole picture.

MR. TRUMAN. All I was trying to suggest was that that's a reason why we don't have prices going up. There was some further secular decline in U.S. production and the leveling off of some of the production in other non-OPEC sources of supply like the North Seas. But there was at the same time [unintelligible] on the production side of the equation ex OPEC. And given some growth in GNP and production around the world--it's not bulging but it adds to demand, with the elasticity of something between 3/4 and 1 percent. So the question is whether that differential is going to be absorbed by the substantial excess capacity in OPEC, in particular in the Middle East, abstracting from military installations [unintelligible]. If it's going to be absorbed by Saudi Arabia increasing its revenues by increasing production--which it clearly has the scope to do if it wants to--that is one scenario. What happens to [unintelligible] in that way to stabilize prices and to not cause the kind of run-up in prices that would bring a presumption of exploration around the world in non-OPEC

sources of supply. That is another scenario--a small gradual increase of 1 million barrels a day roughly in the demand for OPEC oil, which could easily be accommodated by OPEC itself.

CHAIRMAN VOLCKER. How much is U.S. production down in the past year or so?

MR. TRUMAN. So far it's down something like 600,000 barrels a day. The numbers are not great on this. And we have another couple of hundred built into the forecast.

MR. JOHNSON. I also have a comment on the interest rate picture and a word in terms of the deficit. It's true that by your projection the deficit is not improving in '88 over '87, but you have about \$300 or \$400 billion more nominal GNP. I think the deficit-to-GNP ratio declines by about .3 or .4. So you have a slackening of pressure there even with a constant number. In addition to that, you're estimating the same degree of capital flows. If I remember right, there is not a dramatic change in capital flows from abroad. So, under your forecast there is going to be a still significant amount of foreign capital inflow [in relation] to the declining deficit-to-GNP ratio. On the state and local front, Frank, your state and local numbers don't count the pension surpluses, which are very large. So, I don't see in this scenario big interest rate pressures coming from the government side. Now, if those capital inflows were really changing sharply you'd have a different picture. But that's not the forecast. And the deficit declines as a percent of GNP. So, there seems to be an improvement on that side rather than a change in the other direction.

MR. PRELL. But if you look at the numbers on a quarterly basis you would see, for example, that our NIA deficit is moderating over the forecast period to the end of 1988. We have about \$158 billion in the fourth quarter of 1988; and we have a projection of \$187 billion for the current quarter. So there is a perceptible downward movement. You are quite right about the surplus of the social insurance funds in the state and local sector which is running about \$60 billion and edging up in our forecast. That sector as a whole, at least as measured in the national income accounts, is moving in the direction of additional net saving to offset some of the Federal deficit.

MR. MORRIS. But you do have an absolute decline in the foreign capital inflows in 1988, right?

MR. TRUMAN. Yes, of about \$20 billion.

MR. MORRIS. Not only as a percent of GNP but in absolute terms so that--

MR. JOHNSON. Yes. It's not dramatic but it's there. It doesn't change at all in 1987 I don't think. There is something in there--

MR. MORRIS. No, I'm talking about 1988.

MR. JOHNSON. Yes.

VICE CHAIRMAN CORRIGAN. What happens, Mike, to the net domestic savings gap in 1988? In other words, what happens to the financing requirements of the government plus the private sector relative to net domestic savings?

MR. PRELL. I have to do the arithmetic to get to the net. Looking at the government sectors combined, as a percent of GNP we have a 3.3 percent deficit last year moving down to 2.6 percent this year and then to 2.3 percent next year. So there's a significant movement this year and then some modest further movement next year while net foreign investment declines by 0.7 percent over that period. That is almost, I'll say, 3/4 of the movement in the government sector. In gross terms private saving is about unchanged for 1987 and 1988 in our forecast.

VICE CHAIRMAN CORRIGAN. As a percent of GNP or in absolute terms?

MR. PRELL. As a percent of GNP.

VICE CHAIRMAN CORRIGAN. So the net is slightly worse off in 1988 than in 1987.

MR. PRELL. Net, right.

MR. TRUMAN. One of the problems is that these statements are in nominal terms. If you look at the real terms you get a somewhat different picture because the real adjustment on the external side is--

VICE CHAIRMAN CORRIGAN. But for financing purposes the real--

MR. TRUMAN. Right, but the resource allocation implications of the reallocation exercise are more difficult, in some sense, on the financial side. They do get more reshuffling [unintelligible] side.

CHAIRMAN VOLCKER. Does anybody else have a question?

MR. MELZER. I just want to ask: I assume the way you've stated interest rates as an assumption means they are more or less an endogenous variable here. Where would this come apart had you not projected the kind of increase in rates that you have?

MR. PRELL. Well, I think we would have tendencies toward greater inflation and a weaker dollar. And the kind of acceleration we would see in the inflation rate next year would be a significant change from what we had. I think you would notice it; that up-tilt would be considerably greater. These are matters of degree. We haven't changed our interest rate forecast from last time to this time. The change is not drastic, really, by comparison to what we were looking at earlier in the year [but] we have a substantially greater increase in rates than we anticipated at that time.

MS. SEGER. Could you just run the numbers by us instead of just saying appreciable? I don't know what that means.

MR. PRELL. Yes. Maybe you were out of the room when I gave the numbers earlier. We have federal funds, for example, rising above 8 percent by some time in the latter part of 1988. We have long-term Treasury bonds moving noticeably above 9 percent.

MS. SEGER. How about home mortgages?

MR. PRELL. We have them moving back to the highs--maybe toward the 11 percent area.

CHAIRMAN VOLCKER. Mr. Guffey.

MR. GUFFEY. Just to follow up on Tom Melzer's question: If you look at the quarterly pattern of prices measured by the CPI, the implicit deflator, or otherwise, you really end up 1988 at about the same level as the second quarter of 1987. But I think you may have just answered my question when you said to Tom that the rise in interest rates is what pulls that to about that level. Is it?

MR. PRELL. Well, it's clearly an ingredient in the damping of GNP growth in our forecast. The fiscal side is one factor; but the financial environment we think will tend to damp domestic demand, and overall pressures on the labor markets will not increase. And so--

MR. GUFFEY. Given the capacity utilization you're projecting of roughly 80-81 percent and the unemployment rate of about 6-1/2 percent, it could turn out not to show through in prices if indeed the dollar does not fall. We may not need the various interest rates that you have built into the projection.

MR. PRELL. I can't quarrel with that. I would just reiterate my statement that there has to be a considerable uncertainty assigned to one's reading of the implications of a given level of the unemployment rate. We think it has gotten in the territory where it will [unintelligible]. There are areas of greater tightness; in nondurable manufacturing, for example, there are industries right now that have very high levels of capacity utilization and price pressures are evident there. But there's clearly a significant range of uncertainty around it.

CHAIRMAN VOLCKER. Does anybody else have any particular questions that are contrary on this presentation? If not, I would ask you to present your alternative scenarios, if any, that you think are important. I don't want to interpret the group as all being in full agreement with the staff. Mr. Parry.

MR. PARRY. Our forecast really is in agreement with the broad outlines of the Greenbook forecast. We're expecting growth of just under 3 percent this year and a slowdown next year, although perhaps more of a slowdown than is included in the Greenbook. This greater weakness that we have is in spite of a little faster growth of consumption. It's a result of a smaller improvement in net exports than is in the Greenbook forecast and a somewhat weaker housing sector. Our inflation forecast for this year and next, as measured by the fixed-weight deflator is 4-1/2 percent for this year and 4 percent for next year. And higher import prices are certainly a significant contributor to these inflation rates. But I just want to repeat that the only way we were able to keep inflation to these levels was to

produce slack in the economy by means of a fairly substantial increase in short-term interest rates on the order of 200 basis points. And frankly, I'd be very interested in what types of trade-offs other members of the Committee ran into as they addressed this issue of the relationship between their forecast of inflation and its implications for interest rates in 1988.

CHAIRMAN VOLCKER. I think Governor Heller will tell us the answer to that question.

MR. HELLER. I'm not sure. You asked where we were would differ with the forecast; let me focus on that. I think the Federal government deficit number of \$168 billion is probably on the pessimistic side. I would expect that the tax reform which has taken place, and which is clearly difficult to model as far as econometric models are concerned, would result in a considerable broadening of the tax base and, therefore, that the tax revenues would be running higher than the projections indicate. That would be the one factor that I would argue would relieve some of the pressure in the financial markets and thus would yield lower interest rates in an overall economic environment where there is relatively slow consumption growth--with which I agree--and a lot of underutilized capacity and, therefore, lower investment. But the commodity markets still have quite a bit of excess capacity, on a global basis at least. I think that is the framework in which we could see interest rates staying roughly where they are, or maybe even drifting lower, and not having that inflation rate surge that would accompany the projections that the staff has here. Overall, as far as the level of economic activity is concerned, I'm roughly in agreement with the Greenbook. But as far as the financial implications are concerned, I'm not as pessimistic; and therefore, unless we do something to drive interest rates up, I think we can see probably the same level that prevails now, if not lower.

CHAIRMAN VOLCKER. Mr. Forrestal.

MR. FORRESTAL. Well, Mr. Chairman, our forecast for this year is basically in agreement with the Greenbook but we depart somewhat [for 1988] on both the real growth and the inflation side. We think that real GNP is going to be more in the neighborhood of 2.8 percent, which is the number we used in our wire to the Board's staff. That's basically because of our belief that personal consumption is going to be stronger than the Greenbook indicates. We also think the investment forecast for 1988 is a little on the sluggish side in the Board staff's forecast; we think it's going to be a little better than that. Also, we don't see quite the improvement in the trade situation that the Greenbook implies and that translates into our forecast for inflation which we have rising somewhat faster than the Greenbook. In fact, we put the GNP deflator at 4.3 percent, which is about a half point higher than the staff expectations. Unlike Governor Heller, if I understood him correctly, I think the Federal budget deficit projection is a little on the optimistic side; I think it's perhaps going to be higher than the \$167 billion that the staff is forecasting. And that might give a little stimulus to the economy as well. The one place where I think we are in agreement, if I understood the staff forecast correctly, is that we're likely to get wage pressures toward the end of this year and out into 1988 simply because we're operating probably at our potential in the economy at

the moment. And if the inflation number that I have is right, that will in turn put some pressures on the wage front.

CHAIRMAN VOLCKER. Mr. Corrigan.

VICE CHAIRMAN CORRIGAN. The New York Bank's Research Department forecast has basically the same bottom line as the Board staff's forecast but there are a couple of very important differences in the assumptions. In the forecast of the New York Research Department--I distinguish that from my own forecast, because sometimes they're not the same--they basically have no further change in the exchange rate over the forecast period from about the levels of the past month or so. Vis-a-vis the Board staff's forecast that really constitutes a very large difference because it reflects not just the 9 or 10 percent [decline that is forecast] for next year but also what happens over the balance of this year. So, the net difference is more like 13 or 14 percent from where we are right now. Now, because we don't have that further decline in the dollar we get some spurious feedbacks from that. For example, in nominal terms, our current account number for next year is actually better than the staff's number even though in real terms the opposite might be the case; it's hard to tell there precisely. But by not getting that further 13 or 14 percent of J-curve effects we actually end up with the spurious result, at least in the near term, of a better current account situation in 1988.

The other thing that is true by assumption is that while we have some build up in interest rates I don't think it is quite as sharp, by implication, as maybe what you're talking about, Mike. But we get a different mix: we pick up a little more in terms of domestic spending and a little less perhaps in real terms on the net export side. It washes out in terms of GNP to about the same although, as I said, the current account--which for financial purposes is important--is actually better in 1988. The other thing that is troublesome is that, notwithstanding the fact that we have by assumption no change in the dollar, our price numbers are higher, if anything, than the staff numbers--not by a whole heck of a lot, but they are higher. Indeed, it seems to me that when you look at all the price forecasts that are around, certainly the overwhelming consensus of the forecasts, though not all of them, is for a situation for 1988 in which the deflator either bumps or passes through 4 percent and the consumer price index either bumps or passes through 5 percent. And in some cases the consumer price index gets up into the 5-1/2 percent range. Without being too precise, I am just thinking of those thresholds of 4 percent and 5 percent. I'm hard pressed at this point to see what, short of a recession or some major slowdown in economic growth, will prevent that from happening. In other words, given labor market conditions, import prices, and all the rest, that kind of result seems to me to be almost baked in already. To the extent that developments either in oil prices or other things work the wrong way, so much the worse. So, I find it troubling that--and I'm referring to my personal forecast on this--I end up with such a price outlook, again just focusing on those 4 and 5 percent thresholds, despite a different assumption about the dollar exchange rate. When looked at it in terms of a growth pattern of say, 2-3/4 percent, just to pick a number out of the air, that's telling us that we're at the point where we've got to pay for some of our past sins. If we have faster growth we're going to have more inflation and we're going to have less external adjustment. And when

I look at that growth pattern for next year of, say, 2-3/4 percent, I think it's about the best we can possibly hope for.

MR. PARRY. What kind of interest rate increase do you have in that forecast?

VICE CHAIRMAN CORRIGAN. It's really quite modest, Bob. I don't have the numbers.

MR. PARRY. Modest?

VICE CHAIRMAN CORRIGAN. Yes. That's partly because by assumption the exchange rate is unchanged.

MR. PARRY. But the higher inflationary rate doesn't feed through.

VICE CHAIRMAN CORRIGAN. This is kind of a mechanical exercise; not in any material way, no.

CHAIRMAN VOLCKER. Mr. Boykin.

MR. BOYKIN. Yes. My comments can be brief, Mr. Chairman, primarily because for all practical purposes we're right where the staff forecast is--for 1988 at least. We're slightly less optimistic for the remainder of this year; rather than the 3 percent, we see something more like 2-1/2 percent. We question whether there's quite that much strength there. We do see a little price pressure for next year--not anything particularly great, but slightly higher prices. On balance, we pretty much agree with the staff forecast that was just given.

CHAIRMAN VOLCKER. Mr. Melzer.

MR. MELZER. I want to pick up on Bob Parry's theme, using a money-driven model and extending the debate about what money is growing at right now. Just extending the present growth rate--which for this purpose we assumed to be 8 to 10 percent in M1--into 1988 produced what I would consider unsatisfactory results, with the deflator getting up to 5-1/2 percent by the fourth quarter of 1988. So, in coming up with our projections, we assumed a further degree of restraint in 1988 vis-a-vis 1987, which I guess, Bob, would really translate into another way of looking at your interest rate assumption. The net result was that, basically, in 1987 we tend to be at the high end of the [Committee member's ranges] with a 7-1/4 percent nominal growth rate--3 percent real and 4-1/4 percent deflator. But then in 1988 we're more in the median area with 7 percent nominal, 2-1/2 percent real and 4-1/2 percent on the deflator. But we found, really, the same thing using another type of model.

CHAIRMAN VOLCKER. Mr. Keehn.

MR. KEEHN. Our outlook is quite similar to the forecast that Bob Forrestal gave just a moment ago; namely, we're really very much in sync with the staff with regard to 1987 but our 1988 number is 3 percent. The difference, as I alluded to earlier, is in the consumption area; in each of the three categories of consumption we have a higher level of growth than the staff has in its forecast. The

services number seems awfully low, certainly by comparative standards with what we've had over the last few years. And we really wonder if that's realistic. So that's an area of difference. Our inflation numbers are somewhat higher but not much higher than the staff forecast, based principally on the export or the trade side. We feel that higher import prices are going to work their way through to a greater extent than in the forecast that the staff gave.

CHAIRMAN VOLCKER. Mr. Stern.

MR. STERN. As far as the real economy and real growth are concerned, my own view is very similar to the Greenbook numbers; I think that may be the most likely outlook. But as I suggested earlier, if I were to use something like Mike's interest rate assumptions, I think I would get something that would be considerably weaker. Indeed, some of our more formal models suggested that that would be the case as well. On the other side of the coin, and really sort of putting the dilemma before us, I think the staff has appropriately raised concerns about the price outlook and inflationary pressures as the months and quarters pass here. Again, our more formal models suggested that, if anything, those pressures must come to fruition more quickly and somewhat more severely than the Greenbook forecast and my own judgmental view of how things are likely to unfold. So, I think we are facing some unpleasant choices.

CHAIRMAN VOLCKER. Does anybody else feel compelled to say something? If not--you feel compelled to say something?

MR. ANGELL. No, I don't feel compelled.

CHAIRMAN VOLCKER. I don't want to--

MR. ANGELL. No, I thought you were stopping the process. Right now I understand you want to eat lunch.

CHAIRMAN VOLCKER. Well, I'd rather eat lunch with everybody having talked on this subject before lunch so we don't return to it after lunch.

MR. JOHNSON. Issue complete.

MR. ANGELL. It seems to me that there's more assuredness, as I read it, in the 1988 numbers than I quite feel. I'm somewhat more optimistic in regard to the rate of wage pattern change than the staff forecast. But I hasten to add that I believe that if you wait until you do get the wage inflation change that accompanies the staff forecast then it's too late not to have a price impact from that. So I have a very strong resistance to creating an environment in which those wage patterns might develop as the staff and some of the rest of you seem to be indicating. It seems to me, if you look at the wage patterns over the entire decade of the 1980s, that you do see a rather slow, gradual, moderation of wage patterns. And when you look at the kinds of interest rates and unemployment rates that have existed, it seems to me that it takes more of a movement of the actual unemployment rate compared to the assumed natural rate to jar wage patterns out of the existing mold. So I would expect there to be somewhat more delay; consequently, it seems to me that there is some window of opportunity to bring price pressures more in line before a

wage adjustment takes place. But I am grateful to the staff for continuing to indicate to me the danger of this because I don't want it to happen.

CHAIRMAN VOLCKER. Governor Johnson.

MR. JOHNSON. I don't have too much to add. The numbers I had in mind for 1987 and 1988, at least in terms of real and nominal GNP, and maybe even the deflator, probably are a little more optimistic. Overall, the [Greenbook] GNP and deflator numbers are very close to what I had in mind. Like Governor Heller, I had a slightly different view of the financial implications of that. But there are so many "ifs" I really don't know the answer at all.

CHAIRMAN VOLCKER. You had a much lower deflator number for next year if this report is correct. In fact, you have the lowest.

MR. JOHNSON. Deflator number? I had 2.7 or 2.8 percent, something like that.

CHAIRMAN VOLCKER. Well, 2.6 percent it says here, but--

MR. JOHNSON. Okay. Well, maybe it is.

CHAIRMAN VOLCKER. And you're way down at the bottom on the rate--

MR. JOHNSON. All right. Maybe I was thinking more on--

CHAIRMAN VOLCKER. Along with Governor Angell.

MR. JOHNSON. Yes. Well, what does the staff have for the deflator?

MESSRS. TRUMAN AND PRELL. 3-3/4 percent.

MR. JOHNSON. 3-3/4 percent? I guess it is different. But the main issue is that there are so many "ifs" I don't know where to start. One story that's being told here that I think would alleviate some of the financial implications is that we're shifting resources into an area where there's a lot slack in the economy. The whole trade area that we have growing here is one that has a large degree of slack. We are shifting from a service base into trade-sensitive manufacturing areas where capacity utilization rates are extremely low. I agree that there are some sectors that are doing quite well, like paper or others like that. But basically, we're shifting resources out of the service area toward the trade-sensitive areas; and productivity has been high in those areas. Employment growth has been very small, and whether employment demands will pick up in the area, I don't know. But, given the utilization rates and the productivity rates consistent with those sectors, there's a good chance that they won't increase labor demand dramatically and that output will be satisfied otherwise. If that's the case, we're [not] going to be seeing the kind of wage pressures that one might expect and we may not see a big reduction in the unemployment rate associated with the output growth that we're forecasting. So, that's sort of my expectation; the direction things are shifting would tend to indicate

that the kind of pressures we might expect would not be as great. That's just a notion; I don't really know.

CHAIRMAN VOLCKER. I don't know; I would like to believe that. And if you look at just goods versus services it sounds right. But if you look at goods, I wonder whether that is a likely result. It cannot be resolved today, but if you look at it industry by industry where is the trade improvement likely to take place? Would you, in fact, find substantial amounts of slack? In some cases yes and in some cases no, I suspect. But where does the balance lie?

MR. JOHNSON. Well, I think just as--

CHAIRMAN VOLCKER. You're not going to tell me right away.

MR. JOHNSON. I don't know the answer. But if you just accept the principle--which I think we've all accepted up to this point--that the trade-sensitive sectors have been severely damaged by the changes in the trade imbalances, it seems to me that you have to accept that there's slack there in reversing it.

CHAIRMAN VOLCKER. Okay, there is in some industries; paper, for instance, is a leading example. In lumber I don't know--maybe there is and maybe there isn't.

MR. JOHNSON. Well, maybe it's not true that trade has been damaged.

CHAIRMAN VOLCKER. It has been damaged because some industries have contracted; and in some cases where it has been damaged it isn't going to recover. The recovery is going to be in different industries than where some of the damage took place, I think. But if we compromise--

MR. HELLER. Yes, but capital goods, autos, that whole area--

CHAIRMAN VOLCKER. Well, look at it. How much capacity have you got on autos? I don't know.

MR. ANGELL. Right.

MR. JOHNSON. I'm just saying the total rate is around 79 percent and that's very low. It seems to me that's got to be weighted toward the trade-sensitive sectors.

CHAIRMAN VOLCKER. I would like to see an analysis after lunch. Does anybody else have anything to say before lunch? If not, we'll go to lunch.

[Lunch recess]

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

CHAIRMAN VOLCKER. Just a technical question: In 1987 what growth would be needed in M2 to hit the bottom of the current range for the year? Arithmetically, what does it take?

MR. KOHN. About 7-1/2 percent.

CHAIRMAN VOLCKER. From June to December.

MR. KOHN. Yes. It would be about 6-1/2 percent on a QII-to-QIV basis. But given where we are in terms--

CHAIRMAN VOLCKER. 7-1/2 percent brings it into a [unintelligible] 5-1/4 percent.

MR. KOHN. That will bring it to 5-1/2 percent.

CHAIRMAN VOLCKER. 5-1/4 percent. Not just for December--

MR. KOHN. Yes.

CHAIRMAN VOLCKER. One historic question is bound to arise. What is the record in changing these targets at midyear?

MR. KOHN. We have never changed an M2 or M3 target at midyear; we have changed M1.

CHAIRMAN VOLCKER. We have changed M1.

MR. KOHN. We have rebased it, we have widened the range, and we have abandoned the range. We have done all sorts of things. We have never changed the M2 and M3 targets at midyear.

CHAIRMAN VOLCKER. Stated another way, we've changed the target that was the most operative.

MR. JOHNSON. One down, two to go.

CHAIRMAN VOLCKER. Why don't we concentrate mostly on 1987 now? Somebody commenting on 1987 might want to say something about 1988 but primarily concentrate on 1987 where the choices are more limited. We are running within the debt range, so I presume that nobody is going to want to change the debt target. There's some bias against changing these things. Does anybody want to raise a big question about M3? I just want to see if I can narrow this [discussion] at all. Now we might want to say something or leave open the issue of our willingness to fall short or overshoot, or where we'd like to be in the range, or whatever. But so far as any formal change in the ranges, we are talking about M2. Who would like to say something? Mr. Black.

MR. BLACK. Mr. Chairman, in reading this discussion of the alternatives in the Bluebook, I was struck by the difference between the way some of us used to view these ranges several years ago and the way in which we are approaching them now, which seems to me to be very different. In the past, some of us thought of these aggregates as intermediate targets and we selected ranges that we felt would be consistent with progress against inflation in the context of reasonable economic growth. And, of course, one of the advantages of this fairly direct relationship was that we made an announcement on the ranges and it was reasonably clear as a signal to both the public and Congress of what our intentions were. This present approach is, I think, very different from that. What we are doing now, as I think the Bluebook makes very clear, is projecting a broad path of interest rates that we think will be consistent with a desirable economic

outcome and then we project the ranges for the aggregates that we think will be consistent with that interest rate path. Now, I realize that the increased sensitivity of the aggregates to interest rates makes this a logical move but I worry that this approach, if we follow it too slavishly, is going to lead us to deemphasize the aggregates to such a point that these ranges will cease to be reasonable signals to the market as any kind of confirmation of our longer-term objectives. Thus, I would have some reservations about reducing this 1987 range for M2 even though I recognize that a good case can be made for doing that on the basis of the prospective behavior of interest rates over the next 18 months or so. I think some professionals in the market would clearly understand what we are trying to do; but I think there would be a lot of other people who would not understand it. They would likely interpret it as a considerable move toward ease in the short run, which seems to me to be pretty unwise, given the uncertainties regarding the overall economy and inflation. So I think a better approach would be to leave that range unchanged and state explicitly that there is a possibility that it may be appropriate to come in under the range if the recent trends in velocity continue.

If you want me to go on to 1988 I would say that I would take alternative II, which would reduce all the ranges. If we do that, though, I think we ought to have a sentence, which I would be glad to suggest if anybody has any sympathy with this, to explain the rationale behind why we are reducing these ranges--that the further reductions are going to be required over time if we are going to extend the recent progress we have made against inflation.

CHAIRMAN VOLCKER. We can get back to M2 in 1988 in time. Mr. Parry.

MR. PARRY. Well, I will confine my remarks to 1987 and M2. I think that there is a compelling reason to reduce that range. Projections that I have seen, including the Board staff's, would indicate that the growth is going to be about 4-1/2 to 5 percent. If indeed that is what the growth is likely to be, why don't we change the range? And 4-1/2 to 7-1/2 percent makes a lot of sense to me.

CHAIRMAN VOLCKER. Mr. Forrestal.

MR. FORRESTAL. Well, Mr. Chairman, I think we ought to stay with the historical precedent that we have established and not move M2 at midyear. First of all, I am not really concerned very much about the shortfall in M2 that we have had. The indicators suggest that the expansion is not really in any kind of jeopardy and our discussion this morning, I think, confirms that. Also, it seems to me that to change the range now would suggest a degree of precision that I don't think we really have. So I would not be in favor tinkering with M2 at this point. I would rather explain it; and I think it can be explained in terms of a period of slower growth after a period of more rapid growth. And perhaps even more importantly, it could also be said that the growth was too rapid in the past. So again, I would leave M2 exactly where it is for 1987.

CHAIRMAN VOLCKER. Governor Angell.

MR. ANGELL. I would favor leaving the target for 1987 the way it is. It seems to me that it's better to perceive the targets as

being what you are trying for and subsequently, if reasons cause you to miss, to miss. I would rather explain the miss than have new targets. Having a new target almost gives you the notion that it is more important. And if you choose that new target of 4-1/2 to 7-1/2 percent, it is entirely possible that conditions would be such that 7-1/2 percent would be too fast a growth path. So I think it would be confusing, non-helpful, and unnecessary.

CHAIRMAN VOLCKER. You confused me a bit. Let me ask you a question. I don't remember your exact words, but [the thrust was that] they are real targets and we don't change them but explain if we are going to miss them. Are you really going to try to make it [into the range] by not changing them?

MR. ANGELL. No, I would not at this point, unless developments in the economy gave us a clearer signal than we now have. I would not try for the 7-1/2 percent [second-half] growth path it would take to get there.

CHAIRMAN VOLCKER. Not try for the 7-1/2 percent?

MR. ANGELL. I would not try.

CHAIRMAN VOLCKER. You don't really consider it a target in that sense. I am just trying to clarify your view.

MR. ANGELL. I would consider it the best target we knew how to come up with in February of 1987. To try to adjust the target [unintelligible] the targets in my view. It was the best indication at that time of what we should have. And I think we've learned with M1 that there are conditions under which one better not try to alter--

CHAIRMAN VOLCKER. You are not arguing to make 5-1/2 percent a minimum at this point.

MR. ANGELL. That is correct.

MR. PARRY. Do you think that is the best target today?

MR. ANGELL. Well, I would prefer that we would have something in our language. As you may remember, in March we chose the words 6 percent or less [for the March through June period]. We can have a short-run range as an appropriate signal in the market that does not necessarily have to move growth back within the long-run target range.

MR. PARRY. But if you thought that the best target was 5-1/2 to 8-1/2 percent before, and now six months later you think that it is something lower--which I think most people do even though they say don't change the target--why wouldn't you want to communicate that?

CHAIRMAN VOLCKER. The whole issue is--and Mr. Kohn, this is a question that you can answer--have we ever before said explicitly that we have this target but we expect to come in below it or above it?

MR. PRELL. We did in the early 1980s, I believe. We were under the M1 range, and probably ended up--

CHAIRMAN VOLCKER. We have often said the low end or the high end, or whatever. I am asking have we ever said we expect to end up above or below the range.

MR. KOHN. That, specifically, I don't know. However, M1 last year is an exception.

MR. JOHNSON. Let me ask: One would have to look back at the February record, but I thought we had qualified our target by saying it was interest sensitive; we said something about the fact that if certain conditions developed, we might expect a more appropriate range to be-- . Maybe I am wrong about that.

CHAIRMAN VOLCKER. We simply said it was interest sensitive. I don't remember the exact words, but we said something about particularly at the beginning of this year, which I just have no recollection of. It bears upon this question of whether we would more readily or not change the target. I ought to know; I don't recall.

MR. ANGELL. Finally, I would say if we choose to change the target, why 4-1/2 to 7-1/2 percent? It would seem to me at this point that that might be a higher path than we would want to use. I am not positive but perhaps a 3-1/2 percent growth path in M2 should be tolerated under certain conditions. So, I don't want to change it. If we changed it now to 4-1/2 to 7-1/2 percent then I would feel more--

CHAIRMAN VOLCKER. Then you would feel more compelled to try to meet the 4-1/2 which you may not want to meet.

MR. ANGELL. That is right.

MR. KOHN. Mr. Chairman, I am looking back over the M2 and M3 targets, relative to where we were in June when we considered them. There is only one other year in which we were substantially away. In other cases we've been less than a point or so away and very well could have said something, as Mr. Prell indicated, around--

CHAIRMAN VOLCKER. We have often said we expected it to be higher or lower within the target. But I don't recall offhand our saying, though we might have--

MR. BOEHNE. I think we have at times used the word "near"-- indicating that we expected to be near the upper end or near the bottom end, with "near" meaning we could be a little out of the range or a little within.

CHAIRMAN VOLCKER. Who else wants to talk about the substance? Mr. Guffey.

MR. GUFFEY. Mr. Chairman, I would opt to retain the ranges for 1987. In listening to Don Kohn, and if I read the Bluebook correctly, the reason that we would be at or below the range is the anticipation that interest rates will rise. If interest rates remain at current levels or somewhat lower, then I believe the projection is that we would come within the ranges established in February. I don't--

CHAIRMAN VOLCKER. Is that correct?

MR. KOHN. I think we would just about make it. It makes about a 2 percentage point difference in our second-half growth.

CHAIRMAN VOLCKER. With the current levels of interest rates?

MR. KOHN. At the current levels of interest rates. It would be a close call but, at least if we believe the differences in the models, the interest elasticity in the models say it will be--

MR. PARRY. You say it will be at 5-1/2 percent or close to 5-1/2 percent?

MR. KOHN. Just around 5-1/2 percent.

MR. GUFFEY. My point is that if we change the ranges now to lower them, it does imply that we believe interest rates will rise over the next six months. I am not prepared to make that kind of assumption.

CHAIRMAN VOLCKER. Mr. Boykin.

MR. BOYKIN. Mr. Chairman, I would not change the ranges here at midyear; most of the reasons have been given. One other thing does occur to me: it seems that if we did, say, want to go to alternative II, it would limit us somewhat as to what we were going to do for 1988. If we do the midyear correction, the change would imply some precision; I would rather wait and make that judgment. In the final analysis, looking out to 1988 and given my view of the economy for the second half of this year, I would not want to do anything that would give a signal that would imply possibly higher interest rates. So I would leave it alone.

CHAIRMAN VOLCKER. Mr. Boehne.

MR. BOEHNE. I would leave it alone. I don't think it's a big issue. Frankly, I am pretty close and could go either way. Whether we lower it or keep it the same, I doubt very much that it is going to have much impact on our policy decisions, because I suspect that our policy is going to be much more dependent upon foreign exchange markets and the domestic economy and considerations like that rather than the range. I would keep it the same and just indicate that it will be near the bottom and be a little vague as to whether it could go outside the range or stay in by a margin.

CHAIRMAN VOLCKER. Mr. Stern.

MR. STERN. I have a mild preference for just leaving it at the 5-1/2 to 8-1/2 percent range. At this point I am not troubled by the shortfall. The only other thought I would add is that if, as a technical matter, we are troubled by the prospective slowing, we might simply broaden the range to something like 4-1/2 to 8-1/2 percent on the grounds that that is all we are doing, broadening it. It really has no other significance. It would raise the probability that M2 will come out within it.

CHAIRMAN VOLCKER. Governor Johnson.

MR. JOHNSON. I don't think I would change the range either. I would leave it, mainly because I think it does imply some interest rate forecast. If interest rates stay where they are then this target is probably appropriate. And not knowing exactly what the course [of interest rates] is going to be at this point--that is more of a series of short-term policy decisions--I don't see any point.

CHAIRMAN VOLCKER. Mr. Melzer.

MR. MELZER. I would leave it the same as well. I agree with Ed Boehne, [unintelligible] I don't think it is a particularly good intermediate policy guide. We know it is not how we are going to run policy. And looking at it on a long-term basis, it looks to me like velocity growth has been essentially zero over a long period of time. That would be consistent with our GNP forecast for the year; it would fall right about in the middle of a 5-1/2 to 8-1/2 percent range. And finally, I think this signal effect point that Roger Guffey and Manley Johnson raised is also an important one. I don't think that this is necessarily a time when we want to send a signal that we're somehow tightening up policy further. The recent actions have gained a lot of credibility in terms of the willingness of this group to respond to pressures. Those pressures don't seem to be on the table right now, so why send that signal and potentially destabilize things?

CHAIRMAN VOLCKER. Governor Heller.

MR. HELLER. For once, I agree with everything that has been said so far, more or less.

CHAIRMAN VOLCKER. Mr. Morris.

MR. MORRIS. I don't think this is a world-shaking issue, but I have a slight preference for a change to a lower range. We have a number of times gone before the [Congressional] Committee when we have been in a little embarrassing position of having the targets, particularly M1, running over the top. It seems to me we might pick up a couple of minor credibility points by revising the M2 guidelines down. I don't see any harm that could come from it. So I say, why not?

CHAIRMAN VOLCKER. Mr. Keehn.

MR. KEEHN. Well, for all the reasons stated, I am in favor of maintaining the current range. The only thing I might say that is slightly different is that I think there is a message effect in all this. I think the economic results have been and look to be pretty good. A change in the range might imply some kind of policy change and I don't favor that. On top of it all, it is an awkward time to be considering change.

CHAIRMAN VOLCKER. Governor Seger.

MS. SEGER. I'll be brief. I favor maintaining the ranges of alternative I.

CHAIRMAN VOLCKER. Mr. Corrigan.

VICE CHAIRMAN CORRIGAN. I'd keep the range, too. What I would be prepared to say is that, in a context in which velocity was continuing to [rise], I would be willing to tolerate a shortfall.

MR. HENDRICKS. I would leave it the same for all the reasons that have been stated and perhaps one that has not quite been stated. And that is that [given the precedent] of not doing it at midyear in the past, as I understand it, I think we might confuse the market unduly and unnecessarily and perhaps send mixed signals that could be counterproductive.

CHAIRMAN VOLCKER. I am not sure I understand the signal argument. I think it depends on what we say, not whether we change. If we said nothing and didn't change the target the presumption in the market would have to be that we were going to ease.

MR. JOHNSON. It seems to me that seeing the same target would leave the understanding that at the current level of interest rates we would get back to the target by the end of the year.

MR. KOHN. There are some odds on that.

MR. JOHNSON. That's the best guess.

MR. KOHN. Less than a 100 percent.

MR. JOHNSON. Yes, but that is your best guess.

CHAIRMAN VOLCKER. His best guess is that it's going to be in some range of outcome that is barely at the bottom of the target and that to be safe we would reduce the target.

MR. JOHNSON. Well, it all depends. If the implication is that we are just reducing the target to respond to interest rate levels in the past, that is one explanation. If that is the explanation then I feel less uncomfortable about it. But another plausible explanation is that you expect interest rates to rise in the future. It would depend on which one of those we would use--

CHAIRMAN VOLCKER. We have to decide what to say. I would not say we are reducing the range because we expect interest rates to go up. That would not be suitable. In fact--

MR. JOHNSON. We expect an increase in velocity.

CHAIRMAN VOLCKER. Over the year as a whole, given what has happened, given where we are, and so forth--

MR. JOHNSON. I think some people would read through that.

CHAIRMAN VOLCKER. Well, why don't we return to this issue of what we say. Let's look at the next issue, with a bigger range [of options] being displayed before us.

MR. JOHNSON. For 1988 I'd select alternative II. I think it is important to continue to give the signal that we are adjusting the ranges to move toward price stability and I think that all of those

ranges are appropriate for what we expect for nominal GNP next year with some continued resistance against inflation.

CHAIRMAN VOLCKER. You would be explicit. You are saying alternative II is lower than--. No, we haven't set any tentative range.

MR. JOHNSON. The only thing I would say is that I might favor just a 5 to 8 percent range on M2 instead of a full one point reduction to 4-1/2 to 7-1/2 percent. I might be a little more comfortable with 5 to 8 percent rather than 4-1/2 to 7-1/2 percent.

VICE CHAIRMAN CORRIGAN. 5 to 8 percent is alternative II, isn't it?

MR. ANGELL. No, alternative II is 4-1/2 to 7-1/2 percent.

CHAIRMAN VOLCKER. Mr. Forrestal.

MR. FORRESTAL. That's exactly where I would come out, Mr. Chairman. I think it is very important that we send a message to the public that we are still committed to the fight against inflation. We have had that inflation this year and I think the markets need to know that we are not going to validate that. But having said that, I would be a little reluctant to send too strong a signal--which alternative II implies to me--that we would foresee a need to tighten aggressively. I think the middle ground of reducing it about one half percentage point, which is typical of what we have done in other years, would be appropriate. So, I would like to go with 5 to 8 percent.

MR. KEEHN. Could I ask: What is our record of reducing the ranges over the last few years? Have we tended to move about 1/2 point?

MR. KOHN. Yes. The Committee has reduced them nearly every year, and more often than not by a half point. In 1984, M1 and M2 ranges were reduced by one full percentage point, but usually it has been one half point.

CHAIRMAN VOLCKER. Mr. Boehne.

MR. BOEHNE. I like alternative II as it stands. It is true that for most recent years we have reduced it by a half point. But I think this time we have a good technical reason for going to a full point reduction and I would take advantage of it because some years we may not be able to reduce it at all.

MR. ANGELL. I'd vote with Governor Johnson and President Forrestal for the 5 to 8 percent because it does send a signal. And it does give us a chance in January or February, when we reconsider this, to come back to the lower number. I would be very happy if conditions were such next winter that we would want to go ahead and take the range down another half point. But I would hate to take it down a full point now and have to bring it back a half point next winter.

CHAIRMAN VOLCKER. Mr. Boykin.

MR. BOYKIN. Alternative II is where I would be. I have a preference for going down the half point, although I am not totally hung up on it. I could go with a point, but my preference would be the half point.

CHAIRMAN VOLCKER. Mr. Parry.

MR. PARRY. I would favor alternative II as it is, mainly because the kind of growth rates of the aggregates that we see for next year are consistent with that. As a matter of fact, if one were to look at the projections more precisely, growth of M2 is at that lower end of 4-1/2 percent and one could even argue for a slower growth. I don't know, but perhaps the projections of those who are supporting 5 to 8 percent do have 6-1/2 percent growth of M2 in their forecasts. I just find that difficult to see.

MR. JOHNSON. It all depends. If you have stable interest rates next year, you've got--

MR. PARRY. But if you have stable interest rates what inflation rates do you have?

MR. JOHNSON. Well, I don't know.

MR. PARRY. That's sort of the critical question though, isn't it?

MR. JOHNSON. Well, no. I think the point, once again, is that we can't control precisely the mix of nominal GNP. You have to have some idea of what kind of nominal it would allow for and hope that most of that growth shows up in real. Most of the determination of the mix is structural.

MR. PARRY. I think that interest rates have an effect on the real side as well.

MR. JOHNSON. Good. That's it, stable interest rates; it depends on what you say about it.

CHAIRMAN VOLCKER. On our staff forecast, from February you would end up with alternative III if you take [unintelligible] as certain.

MR. KOHN. If you were to center on the staff's best guess, alternative III would be more like it. Our estimates are similar to President Parry's estimates. We have essentially the same underlying economic forces at work: a lower dollar, a little more inflation, and a little higher interest rates.

MR. PARRY. What concerns me is that if one goes to these higher rates, one is implicitly saying "I am comfortable with the potential for higher rates of inflation."

MR. JOHNSON. No, that's not true. No.

MR. PARRY. Show me the analytic work that leads you to a different direction.

MR. JOHNSON. It depends on your interest rate scenario.

MR. PARRY. But that is not independent of what happens to inflation. For example, work that the Board staff has done and work that we have done would suggest that if you don't get those kinds of increases in interest rates, it has an impact on inflation. Would your work show that? What if M2 rose 6-1/2 percent or to the midpoint of the 5-1/2 to 8-1/2 percent range? What would happen to inflation?

MR. KOHN. I think you essentially asked Mike that question before about--

MR. JOHNSON. There are too many unknowns in this equation.

MR. PARRY. If there are too many unknowns, what do you do? How do you proceed?

MR. JOHNSON. You've got to make some assumptions. We are making different assumptions.

MR. HELLER. A lot depends on what happens to your Federal government deficit, and obviously, the difference between what the staff has said and what other people say.

MR. PARRY. I think it is dangerous.

MR. ANGELL. Bob, you see, I just want to leave room for selecting the range next January. I don't want to do it now. Why not make the gesture that we have always made, which is a half percent again? And then we have room to go further in January. The last thing I want to do is to go [down] too far and then end up having to back up. I might be ready to take the 4 to 7 percent, closer to alternative III, next January.

MR. JOHNSON. If interest rates rise as in the staff projection in the end, in January we'll build that into our M2 forecast for 1988. I don't think there is any doubt. We are not saying that we wouldn't support the interest rate rise; it is just a matter of opinion about how the scenario is going to go.

MR. ANGELL. I don't want to build in a possibility of an easing signal that is inappropriate because we got the number too low now.

CHAIRMAN VOLCKER. Mr. Keehn.

MR. KEEHN. I'd also favor alternative II. I don't feel strongly between 4-1/2 to 7-1/2 percent and 5 to 8 percent but I would have a slight bias for the 5 to 8 percent. In July, February always seems like a long time away. But this year it seems like a particularly long time away. I would be very tentative in the language for the reasons that Governor Angell has pointed out. I would prefer to go to the 5 to 8 percent now, and if there is room to go to 4-1/2 to 7-1/2 percent when we get to February, I think that would be the appropriate direction, as opposed to the alternative direction.

CHAIRMAN VOLCKER. Mr. Stern.

MR. STERN. I, too, would favor alternative II with the modification of 5 to 8 percent on M2. It seems to me that, in terms of the signal effect and working toward progress on price stability, at least at this point in time, alternative II would demonstrate that concern. The uncertainties in the outlook remain sufficiently large that I would be a little reluctant to want to overdo it at this point.

CHAIRMAN VOLCKER. Mr. Hendricks.

MR. HENDRICKS. Our projections follow very closely those of the Greenbook and as we try to lay that against our forecast, we come up with the suggestion that interest rates can't stay where they are. And the alternative that best seems to fit our projection is really alternative III. So we would suggest that we make that move, whether we stick with it exactly the way it is put here, 7-1/2 percent or something in between there. Alternative II would be all right with us. But alternative III is the one that we would favor over the other two alternatives.

CHAIRMAN VOLCKER. Governor Seger.

MS. SEGER. Well, just to take advantage of the full range of alternatives, I will vote for alternative I, primarily because the staff's beautiful forecast failed to convince me that the economy is as strong as we would like to see it and as they suggested it is. I am also less confident about the outlook for the economy. I would like, of course, to see the strong trade turnaround, and I hope it takes place; but I am not really convinced that it will to the extent that they are assuming. So I would prefer to go with 5-1/2 to 8-1/2 percent again, with the understanding that we have another crack at this early next year. If I am wrong and the economy is roaring along, then certainly it can be adjusted and I don't think anything will have been lost. We'll have plenty of time to send signals to the markets, in my judgment.

CHAIRMAN VOLCKER. Mr. Corrigan.

VICE CHAIRMAN CORRIGAN. My preference is alternative II as is. But if there was something of a consensus to go 5 to 8 percent on M2, then I would make a formal suggestion that we make the ranges for both M2 and M3 4 to 8 percent.

MR. ANGELL. Make it 4 to 8 percent, Jerry, did you say?

VICE CHAIRMAN CORRIGAN. My preference is alternative II as is. What I said is, if there was a consensus to make the M2 range 5 to 8 percent, I would then suggest that we make both M2 and M3 4 to 8 percent.

MR. MELZER. Don, what would you say is the trend velocity in M2 right now? I threw out zero before as the trend velocity growth. Is that fair?

MR. KOHN. I think that is as close as we can estimate.

MR. MELZER. One of the things that concerns me a little is that we get down to ranges that embrace trend velocity growth and factor in what we expect in nominal GNP and the ranges roughly bracket

that. If we start to take into account short-term velocity behavior to drop the ranges down even further, that's almost building in the fact that at some point down the road we are going to have to jack them back up and move them around. Maybe this is a historical question in terms of what the tradition is. But I would tend to view these, particularly for M2 and M3, as much longer-term. I would be comfortable, therefore, embracing a trend velocity concept together with a nominal GNP forecast; and that would lead me roughly to the 5 to 8 percent range for M2, which is what I would favor. I think there is a danger if we get these ranges down so far that, first of all, we are almost making it necessary to project interest rates to set the targets because of the sensitivity of velocity to interest rates. Also, later we might get into the situation Wayne described where just because we change our outlook and interest rate forecast, we're jacking them up and sending a false signal.

CHAIRMAN VOLCKER. Mr. Kelley.

MR. KELLEY. I would just like to go on record as saying that I prefer alternative II with the 5 to 8 percent range on M2 for basically many of the reasons that I've heard already expressed here; no others occur to me.

CHAIRMAN VOLCKER. Governor Heller.

MR. HELLER. I would be hard pressed between alternatives I and II, but with the 5 to 8 percent modification I would go for alternative II.

CHAIRMAN VOLCKER. Is there anyone we haven't heard from here? Mr. Morris, then Mr. Guffey.

MR. MORRIS. I would go for alternative II as written, Mr. Chairman. I don't have the concern that Tom Melzer expressed that we are going to lock ourselves into a range for M2 that is going to be too low. I can't foresee in the years ahead when we would want nominal GNP growing faster than 7-1/2 percent. So that doesn't trouble me.

MR. GUFFEY. I would opt for alternative II with the 5 to 8 percent, simply because I've been persuaded to keep a little of the powder dry. If indeed in February alternative II of 4-1/2 to 7-1/2 percent looks appropriate, we would have an opportunity to adjust it at that time. I wouldn't use up all my ammunition in midyear when it doesn't mean a whole lot for the next year.

CHAIRMAN VOLCKER. Mr. Black.

MR. BLACK. Mr. Chairman, I indicated earlier at the time I was talking about 1987 that I would be in favor of alternative II. I still feel that way.

CHAIRMAN VOLCKER. There is one peculiarity about ending up with 5 to 8 percent [for 1988] if we say we are sticking with this present [1987] target which we expect, with a high degree of probability, to come in below. Are we saying we expect 1988 to be higher than 1987? What is the implication of that?

MR. HELLER. We have had that situation many times before in reverse--where we have overshoot and then we still adopted a lower growth range and there wasn't necessarily any change in policy implied by that.

CHAIRMAN VOLCKER. Well, I'm going to make a little case. I think these are too high. What do we want to do? We have an outlook here which is always uncertain in real terms. It is quite satisfactory; it's about the best you could hope for if you believe the staff analysis of a slow growth domestically and a pickup externally. Nobody has discussed the point that Mr. Prell made initially that we had quite slow--people like to call it sluggish--growth and a decline of one half percentage point or more in the unemployment rate in the past year. I am not sure we could stand vigorous growth and a decline of 2 percentage points in the unemployment rate in the next year. I don't know how you resolve that little dilemma.

It seems to me that it is perfectly evident that the forecast the staff has for prices--though I am not sure that it is right--leaves us in a totally unsatisfactory position a year from now, with the inevitability of a sizable recession if we are going to have any chance of restoring price stability. Once that gets built into the wage outlook, it is just a question of when; it is going to be messy. I am not sure that is the outlook. I find it a little difficult to think that the prices are going to be that high with the wages at the moment being as good as they are. But certainly, the recent evidence is not very good in terms of what is happening in prices despite the performance on wages. I would agree with what you said, Mike, that once it has broken the wages, you're dead. And a lot of hard work will come unwound. What can we do about it? We only have one tool. For one thing, I would play for stability of the dollar, unlike the staff forecast. And I would not take a further aggravation on the inflation rate or risk there and hope that a further decline in the dollar is not needed to produce the uncertain trade effect. I would certainly work on the budget deficit. There's not much we can do about it, but at least we get some protection on the growth of domestic consumption as well as on the financial side and interest rates. I worry about minimum wages and all that stuff. Now, when it comes to monetary policy, I would be cautious. I think it would be a big mistake not to be cautious. We have talked about a half percent here; it's imagery, but that is where I would come out. I think it is very hard to present a suitably cautious outlook without changing the range this year. I suppose we can decide that we will probably come in low and we are willing to. But we are going to have a higher rate next year that encompasses a more or less satisfactory nominal GNP growth but assumes a totally unsatisfactory price level. That is my speech for the afternoon.

MR. ANGELL. If you took one of these--the 1987 or 1988 ranges--and you changed one, which one would you prefer to have lower?

CHAIRMAN VOLCKER. For 1987 it is so much a matter of the way we present it; I think it makes very little difference. If we say we are not in the practice of changing the range--which isn't quite true when we are looking at M1--and we are going to keep the range but we really expect to come in low, Mr. Proxmire will say: "Why the heck didn't you change the range?" If I were testifying, I would be hard

pressed to answer that question. I would mumble that the Committee didn't want to but nonetheless we think it is going to come in low and eventually we would go on to the next question. I can survive that. I think the way we're sending the message is more in the 1988 ranges than [unintelligible], providing that we say we are willing to come in low in 1987. If we are not going to come in low in 1987 then we are actually saying--these are going to get quite exaggerated--come hell or high water, we are going to get it up in the second half of the year with the implication that that takes a more aggressive easing stance for which we're going to vote.

MR. ANGELL. But let's suppose there is one chance in five that the economy in the third quarter and the fourth quarter will be lower than our estimate. Now, I don't think that's what is going to happen. But I don't feel certain enough that I am willing to make a big stand over a 1988 target range at this point, have the economy come in weak, and then have to reverse. That is, with 6-1/2 percent nominal, one can have very modest inflation--less than 4 percent; that's very plausible.

CHAIRMAN VOLCKER. Barely less than 4 percent. In GNP, I make an assumption, and maybe its wrong, that you cannot have the economy grow 3 percent from here on out through the next 18 months, just based upon recent experience. The unemployment rate is going to be 4-1/2 to 5 percent, which I think is going [down] too fast on the unemployment rate in terms of the future stability of the economy. Therefore, if it can't be 3 percent real and it is 6-1/2 percent nominal, we are going to see 3-1/2 percent on the GNP deflator and 4-1/2 percent on the consumer price index.

MR. JOHNSON. Once again, it depends upon your view of how this whole scenario develops. If the growth is in the trade sensitive areas where there has been a lot of slack and the employment gains are not expected to be strong, then there might not be a reduction in the unemployment range consistent with 2-1/2 to 3 percent growth [in real GNP]. I think that is a perfectly plausible scenario. To remain competitive you want to maintain those productivity gains.

CHAIRMAN VOLCKER. I grant you that; I hope that is what happens. We can get reasonable growth consistent with sufficiently less inflation than is in this forecast. If we can't we're in trouble.

MR. ANGELL. Paul, I very strongly share your view on what, in my view, is the most important issue and that is whether or not we are ready to have the dollar sustained.

CHAIRMAN VOLCKER. That's one of the issues.

MR. ANGELL. Because it seems to me that we will quite likely have another period in which the testing of that will occur. But I would prefer not to have to test the dollar declining in an economy that is particularly weak. It seems to me that if we have an economy that is particularly weak and then we have a declining dollar, that is indeed the worst of all worlds. And so, I feel strongly and sympathize with you in regards to the dollar. But I want to be ready with ammunition to do the job when that needs to be done. I am not sure whether this is that significant an issue--

CHAIRMAN VOLCKER. For the next few months, I don't think this is an issue at all. That we will get to in a minute.

SPEAKER(?). Mr. Chairman, one of the reasons I suggested alternative I was that I thought it would be easier for you to explain to the public. You are saying to me that for 1987 alternative II, in your judgment, would be much easier to explain, I think.

CHAIRMAN VOLCKER. I think that is incidental. It is easier to explain at first blush, but we can do either one for 1987. I think if we've got a real [unintelligible] what we say for 1987. It's one thing to say we are staying with the range, but we are perfectly prepared to come in below it if that is the way things work out. Or we say we are sticking to the range and mean it.

MR. BLACK. If we don't go with alternative II, I think we need to go with alternative III for 1988.

MR. ANGELL. I don't want us to lower the ranges for this year and then say we mean it. Because then we get into a situation that requires another move.

CHAIRMAN VOLCKER. You're saying lower the range for this year? Or do you mean lower the range now for next year?

MR. ANGELL. No, I said this year.

CHAIRMAN VOLCKER. I don't know what the arithmetic is. I am not arguing about it. I don't much care whether it is lowered this year; it's a little awkward to explain. If we didn't lower it this year, from now to the end of the year at what rate of speed would M2 have to grow to exceed the 7-1/2 percent?

MR. KOHN. To exceed 7-1/2 percent would probably take 11-1/2 percent. It takes 7-1/2 percent [from now until year end] to get 5-1/2 percent. I assume it would take about 11-1/2 percent to get 7-1/2 percent.

CHAIRMAN VOLCKER. 11-1/2. I don't think it will exceed the upper end of the range, whatever we do.

MR. ANGELL. Of course.

MR. HELLER. There is really no expectation that we should change the range. The world isn't waiting for us to make a decision on changing or not changing. We have never changed an M2 or an M3 target. So, if we let the target--

MR. MORRIS. Yes, but we have never had an M2 or M3 target come in this much below, or even above, the range.

MR. PARRY. One thing I don't understand is what you think the interpretation of not changing it would be. Wouldn't not changing it indicate--

CHAIRMAN VOLCKER. Most people said don't change this year; that is what everybody [who has a vote] said. Now, what I don't

know--we have to return to what we mean by that. What do we want the explanation to be? We are not changing it this year. We think it is inappropriate to change in the middle of the year unless there is a very strong reason. But, given what has happened in the first half of the year, we anticipate that it is quite likely that we could come in below the bottom of the range. I think that is what I heard most people say.

MR. KEEHN. There is a high level of uncertainty. Our results so far have been quite different than one might expect; that level of uncertainty continues and that's how the rest of the year might play out.

MR. ANGELL. I would say that the price level pressures became such that it was appropriate for us to undertake policies that resulted in coming in under the range because of our high priority on price level stability.

CHAIRMAN VOLCKER. When you put it that way, the next question would be: What is that level of prices that gives you that? I would be a little more vague.

VICE CHAIRMAN CORRIGAN. I suggest "be prepared to tolerate." I think that is a little different from saying we expect. We would be prepared to tolerate it coming in somewhat below.

CHAIRMAN VOLCKER. [Unintelligible.]

VICE CHAIRMAN CORRIGAN. I would start with velocity: If velocity of M2 continues to [rise], as in the first half of the year--

MR. JOHNSON. It seems to me that what you want to say is: given our modest tightening actions to deal with the inflationary pressures that have built up, interest rates have strengthened some; that has put some upward pressure on M2 velocity and M2 has weakened somewhat relative to the targets. Assuming no further changes, I don't know what you say about future policy, but [unintelligible] it's still plausible. I would want to say it is still plausible that we will reach the current target. It is doable.

MR. ANGELL. "Tolerate" is a good word.

VICE CHAIRMAN CORRIGAN. "Tolerate" leaves you open to hit the target.

MR. BLACK. I am not sure that the best choice for 1987 isn't in part determined by what we do in the short run, because if we are not going to send a signal of any action there, then it makes it a little easier to explain no change for 1987. If we decide to take some action, I think it becomes a little more difficult to maintain the status quo for 1987.

MR. ANGELL. It just seems to me that commodity prices and the dollar this year might once again be a problem. And in that circumstance, that 3 percent might be a better growth path for M2 than any number that we are willing to put out there. I would prefer to send a signal that we have decided to come down in a systematic manner--we want to come down a half a point per year. I would fit

that in with what Tom Melzer had to say: that that is gradualism regarding the long run. In the short run, the short-run variations in velocity may cause us to tolerate growth occasionally below the rates in the ranges.

MR. HELLER. Lowering the targets this year, I think, would be interpreted as a signal that we want to be tighter than we were before. And with the dollar rising at the present time, I see very little reason to tighten right now. Why do it at the present juncture?

MR. PARRY. By lowering it you wouldn't be tightening. Why would you be tightening?

CHAIRMAN VOLCKER. What are we talking about--1987?

MR. HELLER. 1987.

MR. PARRY. Why would you be tightening?

MR. HELLER. Because now you are saying that I am going to change my ranges; I am going to be tighter than I intended to be before.

MR. PARRY. You mean you would adopt a different borrowings target as a result of that?

MR. FORRESTAL. It would signal that.

MR. HELLER. If we suddenly announced lower targets--

MR. KELLEY. Which we have no history of doing.

MR. HELLER. Which we have never done before, right? Then we suddenly give a signal that we want to be tighter than we were before.

MR. KELLEY. It would seem to me that if we do announce a reduction to 4-1/2 percent, that would be immediately perceived as being the target that we are after.

MR. ANGELL. We found with M1, with the interest rate sensitivity of its velocity, that under non-normal conditions we were not able to forecast what its target path would be and we had to end up abandoning it. It seems to me that we don't want to force ourselves into this preciseness for M2 that might later cause us to say: Well, we just can't hit it at all.

MR. BLACK. I am repeating myself, but I really do think this would come to a head if we would address the short-run target. I think it makes the long-run a bit easier because we either send a signal or we don't and that strengthens or weakens the case for the most favored alternative.

CHAIRMAN VOLCKER. I think we need to reopen [unintelligible] 1987. I need to reopen what we say about it. There was a considerable feeling ranging from extremely mild to strong that we shouldn't change the 1987 range. That leaves open what we say about it. Have people who didn't want to change it before changed their

mind or do I assume that we are going to keep the same 1987 range? I'm leaving open for right now what we are going to say about it.

SEVERAL. Keep the range.

CHAIRMAN VOLCKER. I don't hear anybody recanting. Now what are we going to say about it? We are not going to say at the one extreme that we are really going to make it period. Nobody is saying that.

MR. GUFFEY. Do we have to say anything at all about the next six months and the fact that we are coming in at or near the bottom or even maybe below the bottom? I don't think the market perceives that we are going to take any action at this table to try to come within the M2 range within the next six months.

MR. JOHNSON. I think that we can make that clear.

CHAIRMAN VOLCKER. I think we've got to say something there. It will be rather obvious if we say nothing and we are at whatever level we're at.

MR. JOHNSON. It seems to me that we can say, assuming no change in current policy, that it is plausible that we could still come within the M2 target. That is what the staff says.

MR. BOEHNE. Why not say that some of the same velocity problems that have affected M1 in recent years have spilled over to M2 and that the level of uncertainty is such that we can't be all that precise and would tolerate being near the bottom of the range?

MR. JOHNSON. Okay, tolerate.

MR. PARRY. Could I ask a question? Don, what was the forecast of M2 in February?

MR. KOHN. About 7 percent, near the midpoint of the range, assuming no change in interest rates from the levels that prevailed at that time.

MS. SEGER. It was 7 percent for the year? Is that what you said?

MR. KOHN. Yes. Assuming no changes in interest rates.

MR. MORRIS. The big capital gains tax payments--was that a factor in the slow growth of M2 and M3?

MR. KOHN. If it was, I think it was very, very small. It would have had to have been a factor boosting the fourth quarter level. That is, people realized the capital gains; they put it in the fourth quarter. By the time you get to June--

MR. BOEHNE. We were high last year; we are low this year. We have to have a lot of tolerance.

MR. ANGELL. Well, Mr. Chairman, it seems to me that explaining this is an opportunity for us to say something about the

recent actions that we took in order to provide for more price level stability. The dollar was under pressure and that resulted in market forces taking interest rates higher than they otherwise would have been. And that increased the probability that we might undershoot the lower boundary somewhat.

MR. JOHNSON. What did we say at mid-term 1981 on M1? We were below targets then and we didn't hit the range by the end of the year.

MR. KOHN. The Committee indicated its expectation that growth in M1, adjusted for shifts in NOW accounts, over the year as a whole would be near the lower end of its annual range. Both of the broader aggregates on the other hand--and this was the instance when M3 was above the range--had been running at the top or somewhat above the upper ends of the ranges. Given their behavior the Committee said their growth might be toward the upper part of their ranges for the year as a whole.

MR. JOHNSON. At least M3 is in the range.

VICE CHAIRMAN CORRIGAN. We had shift-adjusted M1; that was the NOW account year with all the controversy. The measured M1 was actually below the range, but the measure we were using adjusted for NOW accounts and was within the range as I recall.

MR. JOHNSON. We could use similar language. Is that why we didn't change the range on M1?

CHAIRMAN VOLCKER. What language did you use? I am not quite clear on what language we are supposed to use at this point. Are we supposed to say passively that we "may be near" or "tolerate"? And if we say tolerate, under what conditions?

VICE CHAIRMAN CORRIGAN. Again, what's wrong with linking it to velocity?

MR. BOEHNE. We're in a situation in which velocity continues to be high.

CHAIRMAN VOLCKER. The velocity figure that we don't know until the quarter is over.

MR. BLACK. I think this is a dispute about how we explain something that we almost all agree on.

CHAIRMAN VOLCKER. I'm not even sure it is a dispute. I haven't got it clear in my mind as to what should be said at this point.

MR. ANGELL. That is what I was seeking: the way we can explain it the best.

CHAIRMAN VOLCKER. I am going to ask the staff. Do they know what to say at this point?

MR. PRELL. We are going to try to reflect the discussion.

MR. BLACK. They would eliminate the System!

VICE CHAIRMAN CORRIGAN. We could say: "The Committee expects that M2 will come in at or slightly below the bottom of the range. However, if velocity were to continue to [rise], the Committee also recognizes that it might tolerate somewhat slower growth."

MR. MORRIS. [Unintelligible] I think there is some language on page 16 of the Bluebook that says "The depressing influence of the previous increase in market rates should begin to wear off reasonably promptly since offering rates on many components of M2 seem already to have adjusted to the current structure of market rates." The impression is it's a temporary phenomenon or at least is thought to be.

VICE CHAIRMAN CORRIGAN. I don't believe this.

CHAIRMAN VOLCKER. Previously someone said that it is pretty clear, or we expected to come in around, about, below or whatever. If that is what you want to say, that is fine.

MR. JOHNSON. Yes, that's what I--

CHAIRMAN VOLCKER. Put in some other qualifying words about what is happening in the real world. I just want to be sure that is what you want to say.

MR. ANGELL. That's not too bad. It doesn't make the monetarists angry. It doesn't make anybody angry.

MR. JOHNSON. I think that is fine. We just need the explanation for why it dipped below, which is what happened in the past.

MR. ANGELL. I don't know. I would rather have a word slightly less emphatic than "substantially"; I'd rather leave "substantially" out. Is that page 16?

MR. STERN. Why not be prepared to tolerate M2 growth at or near, or whatever, the bottom of the range, depending on some of the things we usually use--like performance of the dollar, the inflation outlook, the real economy. It seems to me that that's really where we are. Assuming those variables more or less behave themselves, we just are not going to get all that worked up about M2.

CHAIRMAN VOLCKER. What you're really saying is--I just want to get this right--if it is going to come in around 5-1/2 percent, that means above or below 5-1/2 percent depending upon all these other things.

MR. JOHNSON. Say "at or near the bottom of the range."

MR. ANGELL. "Around" is a good word.

CHAIRMAN VOLCKER. All right. Tentatively I think we [unintelligible]. Where are we now on the big issue of next year? We have lots of people who want 5 to 8 percent for both M2 and M3. We have some who want 6 to 9 percent. Are there any different thoughts

on these ranges? Anybody on one side or the other who wants to change their minds? Mine is closed. Does anybody like Mr. Corrigan's 4 to 8 percent?

MR. KELLEY. I thought Jerry's suggestion of 4 to 8 percent was an interesting alternative.

MR. STERN. One virtue of that is it does reflect a somewhat greater level of uncertainty, which I think is probably appropriate.

CHAIRMAN VOLCKER. Does anybody like this 4 to 8 percent?

SPEAKER(?). I think it is pretty good. Yes.

MR. KEEHN. Unless broadening the range to 4 percentage points has some meaning that would make it difficult, I think it is a good suggestion.

MR. ANGELL. I would prefer 4 to 8 percent over 4-1/2 to 7-1/2 percent. It seems to me it gives you more flexibility which [unintelligible]. And then if we wanted to become more precise in January, as long as we didn't change the top of it, and I don't think we will--that is, we may want to increase that bottom range some--I don't think it would be that damaging.

MR. HELLER. I think the 4 to 8 percent is really going too far. First of all, it's a very, very broad range. Because then we [unintelligible] just fuzzy things over. We are not giving a real message there. Talking about the bottom end of the range, I disagree with the implications of the 4 percent growth for M2, certainly for next year. Actually, if we use the 4 percent growth as a matter of policy and get an unintended velocity change, where would we be? If we have anywhere near the inflation that is projected, we'd have either zero or 0.5 percent growth. That is all that's left for the real economy. So 4 percent growth, I think, would be too tight; 5 percent leaves some room to grow.

MR. ANGELL. But we might have a condition next year, like this year, in which we might need fuller--

MR. JOHNSON. You would have to have 2-1/2 percent velocity growth in M2, which would be the implication of rising interest rates. That's what you would have to have to get the kind of splits you're talking about.

MR. HELLER. Yes; that's really speculative. You're looking at the M2 velocity as it is projected on those handouts. It is almost horizontal--just a tiny bit higher for M3, a tiny fall for [M2]. I have never seen anybody who can project velocity with any great degree of confidence.

MR. PARRY. I would like to ask a question about this uncertainty issue and the 4 percentage point band. Are we suggesting that there is a greater uncertainty because the analysis that has been presented by staff and others suggests there is greater uncertainty? Or are we just trying to widen the band because there is a greater difference of opinion and we can't fit people within a 3 percentage point range? I think there is a big difference.

VICE CHAIRMAN CORRIGAN. In making the suggestion earlier, I was thinking of the analysis.

MR. PARRY. Nothing has been said about that.

VICE CHAIRMAN CORRIGAN. Well, if I take the arguments that Mr. Kohn and his colleagues are making about the interest elasticity of M2 seriously--and I am not sure that I do--but if I did, and if I had an economic outlook that very much parallels Mr. Prell's economic outlook, it is not at all difficult for me to envision circumstances in 1988 in which M2 could be growing at quite a low rate and I would be very happy. The real economy could be doing just what they are talking about--growing at 2-3/4 percent.

MR. JOHNSON. Once again, to do that you have--

VICE CHAIRMAN CORRIGAN. Now, I don't think that that is the likely outcome; but certainly it is quite plausible.

CHAIRMAN VOLCKER. Much lower [unintelligible].

MR. HELLER. We can ask ourselves whether 5 percent or 4 percent is more appropriate in conjunction with the economic outlook that we have presented. And push it to a [unintelligible]. You are really talking about an outlier of an outlier there.

VICE CHAIRMAN CORRIGAN. I don't think so, Bob. Again, I think part of the question to consider is how you judge the outlook in the first place.

CHAIRMAN VOLCKER. Next year, you're projecting what for M2?

MR. KOHN. Around 5 percent or maybe a little under that-- 4-1/2 to 5 percent.

CHAIRMAN VOLCKER. Well, I don't know whether I can get a [consensus for] 4 to 8 percent. Let's just have a show of hands of people who like this idea of 4 to 8 percent.

MR. ANGELL. Let's ask the question to you. How do you feel about it? Do you feel that 4 to 8 percent helps you much?

CHAIRMAN VOLCKER. It's a relatively small problem. Why is the range so large? I am not so sure about velocity.

MR. STERN. That seems to me to be one of the things we have been confronting for the last several years now. It doesn't seem to me that that would be difficult to explain.

MR. JOHNSON. The only thing I can think of is that Senator Proxmire might react to that [by saying]: Well you never really widened the range on M2 and M3 before; it was just M1. Now you are focusing on M2 and you are broadening the range on M2.

CHAIRMAN VOLCKER. Historically, the range has been 2 to 2-1/2 points; we got that up to 3 points. It's a little embarrassing; if you believe in these targets, it is a pretty wide range. I am not

sure it is wider than, in fact, the outlook has suggested it should be.

MR. STERN. It is probably not as wide as the analytics here--

CHAIRMAN VOLCKER. We had a decline in velocity last year of what?

MR. KOHN. It's about 4 percent.

CHAIRMAN VOLCKER. 4 percent.

MR. JOHNSON. If I were a Senator sitting on the Banking Committee, it would look to me like a gradual undermining of the Humphrey-Hawkins Act.

CHAIRMAN VOLCKER. Senator Proxmire would take that view. I don't think the rest care.

MR. ANGELL. No, I agree with that.

CHAIRMAN VOLCKER. We could say we are making it 4 to 8 percent now, in July, but the Committee intends to try to narrow the range next February. That is what we could say to respond to his question.

MR. ANGELL. Or we could say 5 to 8 percent and the Committee is going to look at it again in February in terms of possibly lowering it again. We want to send signals.

CHAIRMAN VOLCKER. I think we have three choices: 4 to 8 percent is being proposed, if that appeals to anybody or most of you; we have alternative II as written, which has gotten quite a few votes; and we have alternative II as modified to 5 to 8 for both M2 and M3. Then there are further subdivisions. We could adopt that last one and say we were going to look at it hard with the thought or reducing it, or that we would have some inclination to look at that possibility next February, to take Mr. Angell's variant of that. Let me just test the three pure ones and forget about defining the third. How many prefer 4 to 8?

MR. BLACK. Which ones?

CHAIRMAN VOLCKER. How many members? We haven't got a huge following for 4 to 8 percent: five. Alternative II as written? Alternative II with the 5 to 8 percent? Well, that seems to be where the Committee is; so let's assume that's where we are for the moment. Let us turn to the short-term.

MR. KOHN. Mr. Chairman, do you want to consider the directive language that would go with that?

CHAIRMAN VOLCKER. Let's return to that after we consider all the rest. I hear that you got all this new [unintelligible]. For the short run, the critical variable will be [unintelligible].

MR. BOEHNE. Mr. Chairman, I think that we ought to stay exactly where we are. We have two-way risk again in the foreign exchange market; we have a diminution in inflationary expectations; and the real economy is going along reasonably well. And I think we ought to just take things as they are and not rock the boat. I would be speaking of borrowing at \$500 million and language saying that we seek to maintain the existing degree of pressure on reserve positions.

CHAIRMAN VOLCKER. Can I carry you one step further: is [your preference] symmetrical on the language?

MR. BOEHNE. Symmetrical.

MR. BLACK. With "woulds" or "mights"?

CHAIRMAN VOLCKER. Mr. Corrigan.

VICE CHAIRMAN CORRIGAN. I'm precisely with Mr. Boehne: "B" and symmetrical.

CHAIRMAN VOLCKER. Mr. Boykin.

MR. BOYKIN. I agree.

CHAIRMAN VOLCKER. Governor Johnson.

MR. JOHNSON. I agree.

CHAIRMAN VOLCKER. Mr. Keehn.

MR. KEEHN. I agree.

CHAIRMAN VOLCKER. Governor Kelley.

MR. KELLEY. I agree.

CHAIRMAN VOLCKER. This is very subtle analysis in terms of your--

SPEAKER(?). You've got them all worn out!

CHAIRMAN VOLCKER. Governor Angell.

MR. ANGELL. I agree. I don't know what to fight about now.

MR. MELZER. I'll agree.

MR. PARRY. So will I.

MR. FORRESTAL. I will not break the pattern; I agree.

CHAIRMAN VOLCKER. Well, does anybody want to express a contrary view?

MS. SEGER. Can we have a different tilt?

CHAIRMAN VOLCKER. Let us resolve the language. Where is this language? Do you give any alternative here in the directive paragraph?

MR. KOHN. No.

SPEAKER(?). That's good.

MR. KOHN. Not for the short run.

CHAIRMAN VOLCKER. Well, we're going to say "seeks to maintain the existing degree of pressure on reserve positions." Can we make it symmetric? "Somewhat greater reserve restraint would or somewhat lesser reserve restraint would..." Do you want it in that order or reverse order?

VICE CHAIRMAN CORRIGAN. No, reverse it.

MR. ANGELL. Let's not reverse it. I don't want to send any other subtle signals.

CHAIRMAN VOLCKER. Does the sentence otherwise look all right--to people who want it symmetrical anyway? I suppose we simply put in these numbers; we have faith in the staff. Are we [unintelligible] now? What they say is 5 and 7-1/2--we sometimes try to avoid using those fractions. If you believe the staff we've got to use different numbers this time; I don't know whether to believe them.

MR. KOHN. Sorry. You can say 5 to 7; that would encompass both.

CHAIRMAN VOLCKER. Have we ever used a fraction here before? I guess we have.

MR. BERNARD. Yes.

MR. KOHN. I guess so, but not recently.

VICE CHAIRMAN CORRIGAN. 7-1/2 is a nice fraction, though; it's not like--

MR. BLACK. That really [balances] off very nicely between 5 and 10.

CHAIRMAN VOLCKER. Shall we say 5 and 7-1/2?

MR. ANGELL. That seems to me to be somewhat expansive but that's--. I can imagine circumstances in which 5 to 7-1/2 might be--

VICE CHAIRMAN CORRIGAN. Well, this is a resource--

CHAIRMAN VOLCKER. This follows a very low [growth] period, let me say. That's not very expansive.

MR. JOHNSON. That's what's inconsistent with alternative II.

MR. HELLER. I know--which is [unintelligible] the bottom of the range, again. Otherwise, you have a hard time explaining why we would be able to achieve the lower end of the target cone.

CHAIRMAN VOLCKER. Well, 5 percent on M2 isn't going to be in the lower end of the target.

MR. HELLER. No, you need 7-1/2 percent arithmetically in order to be able to reach it.

CHAIRMAN VOLCKER. 7-1/2 percent for 6 months. If it grew 5 percent for the next 3 months, what would you need for the final 3 months--11 percent or something--to reach the bottom end of the target?

MR. KOHN. Yes. Presumably, it would be 10 percent, without taking account of the compounding.

CHAIRMAN VOLCKER. Yes, it would be 10.

MR. KOHN. Yes, but without knowing the compounding. The 5 percent gets you to 4-1/2 percent--

CHAIRMAN VOLCKER. Well, if the 7-1/2 percent is right forgetting about the compounding, which is limited, it is going to be 10 percent.

MR. JOHNSON. Well, that's 7-1/2; that's what it says.

MR. KOHN. Q4 to--

CHAIRMAN VOLCKER. Oh, but I think with the 7-1/2 percent for M2 that we get [unintelligible].

MR. JOHNSON. Yes.

MR. KOHN. 5 percent gets you to 4-1/2 percent in September.

CHAIRMAN VOLCKER. It would be a little more than 10 percent because that's a quarterly figure.

MR. KOHN. It might be less given the higher base. We'll be taking it from September, which is a higher base.

CHAIRMAN VOLCKER. We're going to find out it's going to be even 12 percent that this implies for the last quarter; I'm not sure.

MR. KOHN. It's a lot.

CHAIRMAN VOLCKER. And for growth in M1, that's a vague enough statement. Are we going to leave that the way it is? "Growth in M1, while picking up from recent levels" or something--. Do we want to put something like that in there?

MR. JOHNSON. Still running--

MR. KOHN. March to June was 4 percent; and 4 percent is about what we're projecting for June to September.

CHAIRMAN VOLCKER. March to June was low.

MR. KOHN. It certainly picked up from May in June but not from March to June.

CHAIRMAN VOLCKER. Well, I don't think it makes much difference. If we want to be reassuring to some of our monetarists, then we could say "growth in M1, while picking up from recent levels" --which would be May and June. And that was negative?

MR. ANGELL. Yes.

CHAIRMAN VOLCKER. "M1 is expected to remain well below its [pace]"--

MR. JOHNSON. "Of 1986."

CHAIRMAN VOLCKER. "Growth during 1986," I think. Do you want to put that phrase in there?

MR. ANGELL. That's fine.

CHAIRMAN VOLCKER. The word "pace" is kind of a funny word when I see it, but I know what it means. It was 6 percent last time; I guess we'll leave it then and use growth rate. We continue on with 4 to 8 percent. Does anybody have any further comments? That's stating it symmetrically with no change, the numbers or the projection [provided by the staff], and "while picking up from recent levels" inserted. Does anybody have any questions about that? Then we'll be turning to the other operational paragraphs. We'll go back to page 20. What's the difference between these variants? All right. You have nice language for us here; I might have read that before. Variant II just has the reduction in the range. Do people like Mr. Kohn's language? It's going to save us some trouble.

SPEAKER(?). Yes.

SPEAKER(?). Yes. It seems pretty good.

MR. BOEHNE. Good.

VICE CHAIRMAN CORRIGAN. Where are you reading from?

CHAIRMAN VOLCKER. The top of page 21.

MR. FORRESTAL. Do we just want to say "the lower ends of the range" or do we want to indicate that growth might be somewhat below?

MR. BOEHNE. It sounds like "around".

CHAIRMAN VOLCKER. Well, "around the lower end of the range" I guess means that it could be below.

MR. FORRESTAL. Does it mean that?

MR. KOHN. Yes.

MR. MORRIS(?). Sure. "Around" means both sides.

MR. BLACK. Trust him, Bob. That's Boston--

CHAIRMAN VOLCKER. Do you want to say aggregates or growth in M2--pin it down to one that's around the lower end of the range?

MR. JOHNSON. They're both going to be "around"--

MR. FORRESTAL. Being around [unintelligible], which takes care of that.

CHAIRMAN VOLCKER. They "will be in the lower halves of their ranges, particularly M2" or something.

MR. JOHNSON. That's fine.

VICE CHAIRMAN CORRIGAN. I kind of like it the way it is.

SPEAKER(?). Yes.

VICE CHAIRMAN CORRIGAN. When it comes in, if one falls out [of the range] we did exactly what we said we were going to do.

MR. HELLER. Yes. Right; one may be above and one below it.

MR. ANGELL. How about that [wording within the] brackets?

MR. HELLER. That's right; put it in there.

CHAIRMAN VOLCKER. That's all right.

MR. ANGELL. I'd rather put a period after "appropriate."

MR. JOHNSON. The rest of that explanation sounds all right.

CHAIRMAN VOLCKER. I think whether or not you put a period after "appropriate" the explanation you'd have to go on is incorporated in the bottom line of what's there.

SPEAKER(?). Yes, I'd leave it.

CHAIRMAN VOLCKER. Is that satisfactory?

SPEAKER(?) Yes.

CHAIRMAN VOLCKER. Now, where are we? On page 22. Is this a bit of boiler plate at this point? Have we said this before?

MR. KOHN. Well, we condensed what's in the directive right now. This is adapted from what the Committee put in at the last meeting and at the February meeting.

MR. JOHNSON. What do you say to monetarists who have focused on M1A and tried to take out the highly sensitive interest component and still find a similar pattern--maybe even a more pronounced pattern--in M1 growth? I think you can still use the interest sensitivity argument, but it seems to me that it may come up in the hearing; there may be some focus on M1A. Do you say take out the interest earning accounts and you've still got a pattern like--

CHAIRMAN VOLCKER. I think the question is likely to come up regardless, since the issue has been raised. We should have had a little discussion of what's the matter with M1A.

MR. KOHN. I tried to include something in my presentation about velocity; that's why I had the velocity chart in there. Our view is that, while less is wrong with M1A than is wrong with M1, it's still not that good an aggregate. It's still interest sensitive; much of the trend in its velocity that's extended beyond the trend in M1 velocity is a combination of offsetting propitious events, including deregulation and interest rate declines. And in fact, its velocity trend did break in early '85. So, I think it's useful as a monitor and probably more useful than M1; but all our work suggests it's probably not as useful as M2.

MR. JOHNSON. Would you concentrate even further on compensating balances of corporations and their growing proportion of demand deposits?

MR. KOHN. In my view, that's actually what's making this aggregate increasingly interest sensitive over time.

MR. JOHNSON. I think it might be useful to say that because that would really take a lot of the wind out of that.

MR. PRELL. We had really good evidence, hard evidence, on the proportion and lots of input on the growth of bits and pieces of--

MR. JOHNSON. Well, okay.

MR. KOHN. Except that households are a much smaller proportion than they used to be and businesses obviously are a higher proportion.

MR. BLACK. We took a look at that Treasury study and concluded the same thing that the staff did: that M2 is a little better.

MR. JOHNSON. I completely buy the staff study and--

MR. BLACK. That's where we came out, quite independently of what they had done, much to my disappointment.

CHAIRMAN VOLCKER. I'm not crazy about this sentence that finishes with lower growth in M1; it says "the Committee anticipates". Shouldn't we say that "In the light of what happened last year the Committee welcomes substantially slower growth of M1 this year than last year"?

MR. ANGELL. Yes.

CHAIRMAN VOLCKER. "In the context of continuing economic expansion given the intensification of price pressures,"--maybe just leave that there. All this wording about "associated with substantial downward movement of the dollar...and the abatement of the weakness in M1 velocity" is saying the same thing as the first part of the sentence.

MR. ANGELL. So you want to take the whole sentence out?

CHAIRMAN VOLCKER. No, just the second half.

CHAIRMAN VOLCKER. For the second half of that: "The Committee welcomes substantially slower growth of M1 in 1987 than in 1986 in the context of continuing economic expansion and intensification of price pressures." I'm not quite crazy about that "intensification." I don't like to admit that the intensification-

MR. ANGELL. I don't either.

CHAIRMAN VOLCKER. Say "the continuing economic expansion and a greater tendency for prices"--

MR. MELZER. "Some evidence of greater prices"--

CHAIRMAN VOLCKER. "Some evidence of greater inflationary pressures." How about that?

MR. ANGELL. That's better.

CHAIRMAN VOLCKER. Say greater--

MR. ANGELL. Or inflationary expectations.

MR. JOHNSON. Yes. The only thing I can think of is that the monetarists would say that there's a lag and that to look at contemporaneous inflation and to adjust monetary policy is chasing the tail.

MR. MORRIS. Milton Freidman predicted an explosion of inflation in 1984.

CHAIRMAN VOLCKER. This is a vague sentence.

MR. JOHNSON. Oh, I realize that, but I'm just saying that--

CHAIRMAN VOLCKER. All this says is that substantially slower growth of M1 in 1987 than in 1986 with a [unintelligible] that ought to be--

MR. JOHNSON. That's fine with me.

MR. MELZER. It seems to me the last sentence could be ended after "prevailing".

MR. KOHN. Well, that's taken from before.

CHAIRMAN VOLCKER. Any preferences? I'm--

MR. HELLER. Are we really planning to do that still? We're in the second half of the year. Are we really going to start targeting M1?

CHAIRMAN VOLCKER. Is this exactly what we said earlier in the year?

MR. KOHN. This last sentence is exactly, which is--

MR. HELLER. We may as well drop the whole sentence.

MR. ANGELL. No, but--. Well, I think we might.

CHAIRMAN VOLCKER. I don't think we should.

MR. ANGELL. I think there might be some circumstance in which we would want to bring it back.

MR. STERN. I think Tom Melzer's suggestion is probably a good one. I don't know why we would be particularly--

CHAIRMAN VOLCKER. What we actually should do is this. I'll make a more accurate sentence: "The Committee in reaching operational decisions over the balance of the year will take account of growth in M1, and at some point in time, in the light of circumstances then prevailing if the Committee..."--

MR. ANGELL. That's better, yes.

CHAIRMAN VOLCKER. "The Committee in reaching operational decisions over the balance of the year will take account of growth in M1 in the light of circumstances then prevailing," [unintelligible] and all that business. The issue is if it's too low, we'll be a little easier than we otherwise would be. Now we get to 1988. We have 5 to 8 percent as the Bluebook number for M2 and M3, right?

SPEAKER(?). Yes.

CHAIRMAN VOLCKER. Leave this sentence about M1 just in--

MR. ANGELL. Apparently, we could put M1 back in tentatively.

MS. SEGER. I'm not sure it would fit.

MR. BOYKIN. I think we need it because we address it for 1987 and now we're talking about 1988.

MR. ANGELL. Tentatively.

MR. BOYKIN. Yes.

MR. JOHNSON. All you need is that one sentence: "The issues involved in establishing a target range for M1 would be carefully reappraised."

CHAIRMAN VOLCKER. Well, this is awfully thin. It says nothing about the targets. Did we write this sentence in the past pattern? It says we established the ranges for M2 and M3 and doesn't say another word about them. It goes on to a little baloney about M1.

MR. KOHN. I think that is the past pattern for the tentative ranges.

MR. BERNARD. Yes.

MR. ANGELL. But I think we might have some language--

CHAIRMAN VOLCKER. What I was wondering about is this discussion of M1. Why shouldn't it all be combined in that one paragraph on M1? So what would we change? With respect to M1 and so forth [as shown]. Then, "because of its sensitivity the Committee decided not to [target it] over 1987 and has established no tentative range for 1988." And then start with "currently the appropriateness," and then add this last sentence saying "issues involved with establishing a target range for M1 will be carefully reappraised in the beginning of 1988." I would make M1 all one sentence. I think it's a little more straightforward that way.

MR. ANGELL. I just wonder what, tentatively, we might think about. Although we may not want to put it in, what would we have in mind? If at this stage you had to suggest M1 ranges for 1988 what would you suggest, Don?

MR. KOHN. Our projections, of course, are keyed to the prospects of rising interest rates. And in that case we have pretty low M1 growth--on the order of 4 percent. Without those rising interest rates, we'd probably have growth for 1988 in the 5 or 6 percent range.

MR. ANGELL. So, you'd want a range at least 3 percentage points wide?

MR. KOHN. Well, with--

MR. ANGELL. Or more?

MR. KOHN. More than 3 percentage points wide would be my recommendation. If you had 3 percentage points on M2, a comparable [M1] range that would encompass the same kinds of possible outcomes, I think, would be close to 6 percentage points.

MR. ANGELL. So, you think 3 to 8 percent would be--

SPEAKER(?). 3 to 15!

MR. ANGELL. 3 to 9?

MR. JOHNSON. There's a lot of uncertainty about the interest rate scenario that goes with these nominal GNP numbers.

MR. ANGELL. I know, but I just want to have some notion in case we're going to discuss this seriously in January. I want to have some notion about how well we might do between now and then as to whether or not we will be able to redo it. Otherwise, I don't want to say we're going to discuss it seriously. You think it would take 3 to 9 percent?

MR. KOHN. Right now, if you asked me, I'd say 3 to 9 percent, or 2 to 8 percent, or something along that line.

MR. ANGELL. Then it would be--

CHAIRMAN VOLCKER. This doesn't say we're going to establish a target range. All it says is that we are thinking of it; it just says we're going to reexamine whether we want one at all. I don't think it commits you to anything.

MR. JOHNSON. That's the same kind of range we were saying we had--

CHAIRMAN VOLCKER. Well, that just leaves it where we are.

MR. ANGELL. Yes, but it just doesn't--

MR. JOHNSON. We have to have a target so we would--. Obviously, we wouldn't at all.

MR. ANGELL. I'm just suggesting that sometime we will run out of ability to continue to say that.

CHAIRMAN VOLCKER. I agree with that.

MS. SEGER. We've always said that.

VICE CHAIRMAN CORRIGAN. We've run out of some other things, too.

CHAIRMAN VOLCKER. Let me just [review]. Logically, I think this M1 sentence would come after both of them, then. The M1 paragraph would be as it is with a small change in the middle of the paragraph: "The Committee again decided not to establish a specific target for growth in M1 over the remainder of 1987 and no tentative range has been set for 1988. The appropriateness of changes in M1 this year will continue to be evaluated," etc. Then right at the end bring up that other sentence: "The issues involved for establishing a target range for M1 will be carefully reappraised at the beginning of 1988."

VICE CHAIRMAN CORRIGAN. I would be--

MR. ANGELL. You know, ironically, we took away M1 the year that we would have hit the target range if we had set one.

MR. BLACK. I've been telling them they were playing with fire.

CHAIRMAN VOLCKER. That would depend upon [unintelligible]. Well, this leaves us one sentence for the long-term ranges for 1988. Is that all right? It says "the range is ___ to ___ percent;" it doesn't say anything about [unintelligible].

MR. KOHN. The one you had last July.

MR. PRELL. That also was the last one, August.

CHAIRMAN VOLCKER. Oh yes. We have a range on debt, which is what? Is debt 7-1/2 to 10-1/2 percent?

MR. JOHNSON. That's what I get: 7-1/2 to 10-1/2 percent.

CHAIRMAN VOLCKER. We start out with no change in the range this year but we agree that growth in the aggregates around the lower end of the ranges may be appropriate in light of developments with respect to velocity and signs of underlying inflationary pressures, provided that economic activity is expanding at an acceptable pace. We will vote separately on these things. That is the pattern, right?

MR. BERNARD. Yes.

CHAIRMAN VOLCKER. Are we prepared to vote on 1987 ranges? Unchanged ranges with that sentence--

MR. BERNARD.

Chairman Volcker	Yes
Vice Chairman Corrigan	Yes
Governor Angell	Yes
President Boehne	*
President Boykin	Yes
Governor Heller	Yes
Governor Johnson	Yes
President Keehn	Yes
Governor Kelley	Yes
Governor Seger	Yes
President Stern	Yes

*-- [Note: Mr. Boehne was out of the room at the time of this vote. As indicated below, Mr. Boehne voted 'yes' when he returned.]

CHAIRMAN VOLCKER. Now we move to 1988. We have two sentences: one saying 5 to 8 percent and one saying 7-1/2 to 10 percent on the associated range for debt. But we also have this sentence or paragraph on M1.

MR. JOHNSON. Say that again.

CHAIRMAN VOLCKER. All it says is "5 to 8 percent for M2 and M3 and 7-1/2 to 10-1/2 for the associated range for domestic nonfinancial debt." It's two sentences. Then this paragraph on M1--

MR. STERN. Can we establish that that's the way we've done it in the past?

MR. JOHNSON. Move toward price stability.

MR. STERN. Or Governor Angell's thought about maybe looking at it again with a bias toward--

VICE CHAIRMAN CORRIGAN. You can get a vote from Mr. Boehne now.

MR. KOHN. Last July we simply had a paragraph that gave the tentative ranges with a little extra verbiage about M1.

MR. JOHNSON. I would prefer to have at least that sentence about why we're ratcheting the range down, saying--

VICE CHAIRMAN CORRIGAN. I prefer to have one on why we are not ratcheting it down enough.

MR. ANGELL. But we want to continue to ratchet a longer period of time--

CHAIRMAN VOLCKER. Well, I think we've got to say that in the explanation.

VICE CHAIRMAN CORRIGAN. I think that operational language has always been that stark. It has been in the other part of the policy record and in the testimony that we had all the verbiage and the hallelujahs and hosannas.

CHAIRMAN VOLCKER. We have 5 to 8 percent, 7-1/2 to 10-1/2 percent and the paragraph on M1 for the record. Does anybody need that read to them? I will read it to you. Are you ready?

MR. BERNARD. Can we pick up President Boehne on 1987?

CHAIRMAN VOLCKER. Yes.

MR. BERNARD. President Boehne on the 1987 ranges?

MR. BOEHNE. What was the number? 5-1/2 to--

CHAIRMAN VOLCKER. Unchanged.

MR. ANGELL. Just vote no.

MR. BOEHNE. I vote yes.

MR. BERNARD. For 1988:	
Chairman Volcker	Yes
Vice Chairman Corrigan	Yes
Governor Angell	Yes
President Boehne	Yes
President Boykin	Yes
Governor Heller	Yes
Governor Johnson	Yes
President Keehn	Yes
Governor Kelley	Yes
Governor Seger	No
President Stern	Yes

CHAIRMAN VOLCKER. Now we get down to the operational paragraph. Just to remind you: It is "maintain"; same language as last time, but totally symmetrical with "woulds"; 5 and 7-1/2 percent, respectively, for M2 and M3; growth in M1 while picking up from recent levels is expected to remain well below the pace in 1986; and 4 to 8 percent for the federal funds rate.

MR. ANGELL. In other words, just like last time.

CHAIRMAN VOLCKER. Please call the roll.

MR. BERNARD.

Chairman Volcker	Yes
Vice Chairman Corrigan	Yes
Governor Angell	Yes
President Boehne	Yes
President Boykin	Yes
Governor Heller	Yes
Governor Johnson	Yes
President Keehn	Yes
Governor Kelley	Yes
Governor Seger	Yes
President Stern	Yes

CHAIRMAN VOLCKER. Anything else to discuss? We can just quit. If any members have changes in their projections, Mr. Prell would like to receive them by noon on Thursday.

VICE CHAIRMAN CORRIGAN. I'd like for the record to show, if I may, that of the other occasions to [unintelligible] us, in this particular case I think we have to acknowledge, at least I would do so, that this will be the Chairman's last Open Market Committee meeting, hopefully.

CHAIRMAN VOLCKER. How do you know?

VICE CHAIRMAN CORRIGAN. Hopefully. But it has been, I think, 12 years and something like 119 or 120 consecutive--I don't think he's ever missed one--meetings of the Committee as a member and as Chairman. We've all come to learn the subtleties of "mights" and "woulds" and "snugs" and "oozes." But I think we've learned a lot more sensible things and I think that we should acknowledge this particular occasion.

CHAIRMAN VOLCKER. [Unintelligible] come back and bite you in August with another meeting where you could go off on your own "woulds" and "mights" and stuff. I appreciate the cooperation of all, in these recent years in particular. This is a wild and woolly venture sometimes, with so many people. But it works and I trust it will continue with all your intelligent and forceful efforts. Thank you.

END OF MEETING