## APPENDIX

I'll give a moderately lengthy presentation and Mr. Sternlight will follow with another presentation. The tables in front of you dated November 19 are based, given the paths that were derived from the Committee's decision last October 6 and put down in what we call working form. As you recall the Committee had a decision to accept monetary growth rates of M1 of $4-1 / 2$ and M2 and M3 of about $7-1 / 2$ or somewhat lower should they develop. We calculated the reserve increases that are consistent with the $4-1 / 2$ percent $M 1$ and the $7-1 / 2$ percent M2 from September to December. The week, our estimate of the demand for money, the pattern of money demand was very close to a constant rate of growth of about 4-1/2 percent each month. That is, at the time of the October 6 meeting we were estimating a 4.8 percent for October. We had a lot of ups and downs in the course of the month, but that was the original estimate at the time of the Committee met, so we constructed the reserve path that was roughly consistent with this fairly steady 4-1/2 percent increase in M1 lacking any clear evidence at the time of the meeting that it should be 10 , zero, or any kind of variation like that. Then we deseasonalized that and put it in the form that you see on the table in front of you. That is we developed a seasonally unadjusted 4 week average for the various reserve measures for the week ending October 10 to October 31 inclusive, that's a 4 week period. And then another series for the weeks ending, the 3 week period November 7 to 21 . There was the 7 week interval between Committee meetings. It didn't seem reasonable to hit a 7 week average, and similarly it didn't seem reasonable to aim each week so we arrived at the thought that a 4 -week--an initial 4 week and then a 3 week would be the most reasonable basis for preceding. So the, in a sense in the first 4 weeks Mr. Sternlight was aiming at 4 -week average and the next 3 weeks at a succeeding 3-week average. And as you can see we have provided a monetary base level which in the week ending October 10
through 31, not to read numbers on the table, but to be sure we are all on the same table as 150,943 in terms of millions and then was higher in the week ending the weeks of 7 th to the 21 st. We have provided the total reserve level, which is of course is the monetary base less currency and a nonborrowed reserve level. Now we took the Committee's assumption that borrowings ought to start out at $\$ 1,500$ and that is shown in the next to the last panel, group, of member bank borrowings as our initial assumption of $\$, 500$. In the event, you will see that the demand for reserves ran much stronger than that. And excess reserves we assume at around $\$ 200$ million which hadn't been far off the previous, what had previously occurred. The results--to focus for a minute on he column October 10-31--were that monetary base ran strong relative to path, total reserves ran strong by $\$ 390 \mathrm{million}$ relative to path, and nonborrowed reserves as the Desk attempted to hold back in the face of this demand for reserves ran $\$ 231$ miliion. In consequence, below path, in consequence borrowing ran $\$ 623$ million above the path in that 4 -week period and excess reserves in this kind of uncertainty that followed the Committee's actions ran high above path and continued to run high in the weeks of the 7th to 21st. In the weeks of 7 th to 21 st the monetary base again ran high relative to path, but came down. It was less high than in the preceding week. Total reserves was less high than in the preceding week and nomborrowed reserves appear to be on path. Now they were below path in the first 2 weeks, and this November 7 th through 21 st includes assumptions shown in footnote 2 about what the outcome for this week will be. As the Committee knows that can't be entirely predictable because the factors affecting nonborrowed reserves other than Mr. Sternlight's operations, that is float, currency, and such items do vary quite widely, and so there can be misses because of that--substantial misses because of that. And finally excess reserves appear to be running above path. Now there ar some points that might be made about this, and 1 is how do these path levels of reserves relate to the multipliers that you were working with, and the deposits that
they supported or indeed caused. And there's a summary of that on the 2nd table. Now I would like to stress that again that where we have M1 type deposits this was calculated here in a sense as a residual. That doesn't mean it isn't relevant but we haven't broken it down by the distribution of deposits among large banks versus small banks and it's not in that fine a detail. And this shows for example on the first line, again it repeats the excess reserves running above path, which would be a factor increasing the demand for reserves relative to the path that the Committee wished and presumably the Committee might want the excess reserves to be accommodated. Now, required reserves did turn out to be higher than we had estimated in our paths, but not because of required reserves against M1 type deposits, but because other deposits were growing stronger than had been originally estimated and were in a sense absorbing reserves from M1. Thus, time and savings deposits included in M2 looking to the 7 th to 21st column were $\$ 10$ million above. Again that's a trivial amount and not really worth considering. But large negotiable CDs, required reserves against those items were running $\$ 270$ million above path as banks were issuing many more large CDs than we had expected in view of the fact that they were losing a considerable amount of savings deposits and even indeed demand deposits and were trying to replace these funds in the way they could which was by issuing market instruments--large negotiable CDs as well as money market certificates. But these large negotiable CDs are not in any of our Ms, and they were absorbing reserves that would otherwise support M.

VOLCKER

AXILROD

This doesn't include the marginal reserves.

No, this is abstracting for the marginal which we assume we just accommodate. This is the basic reserve and represents the distribution, the change in the distribution of those deposits. But the biggest factor was domestic net interbank demand deposits which from the 7 th to the 21 st had an increase that absorbed about $\$ 425$ million more reserves than
we had allowed for. Now this factor fluctuated rather considerable in the course of the period. And $\$ 270$ million you see from the l0th to the 31st kind of came toward the end of that period and the $\$ 425$ million in the 7 th to the 21 st turned out by the time the period was over to be a fairly steady factor in the course of the period. If one had been certain about it in advance, one might have argued that the total reserve path should have been adjusted to, added to, to put those in but you would have wanted to provide the reserves needed to support those deposits rather than have those reserves dragged out away from money supply type deposits. Some such argument could have been made. We on the staff felt very reluctant to make changes, to make such changes until there was a very clear cause in view of the fact that it could all be reevaluated at the time of the next FOMC meeting. Skipping to the memorandum item, this is the implied impact of nonmember deposits on bank reserves. The negative sign there of minus 195, that reflects the strength in nonmember bank demand deposits. That is nonmember bank demand deposits were running stronger than had been built into the path--stronger than their usual relationship to member bank demand deposits. Given that strength, hat would have implied reducing member bank demand deposits, member bank required reserves behind member bank demand deposits by $\$ 195$ million to offset that. A correction--that is to say you might have considered lowering the path by $\$ 195$ million because you had to suppress member bank demand deposits, since nonmember bank demand deposits were running stronger than you had expected. In the event, you could see that the demand deposits in M1 in that week were $\$ 434$ million below path in any event, so you could say there was--it was $\$ 240$ million more than you might have want for perfect M1-type behavior. In fact M2 did turn out to come pretty close to path or right on path. M1 was below path. CDs were stronger, but that was financing a moderate expansion in bank credit, and as I say no adjustment was made to path because it was part of the Committee's decision to restrain bank credit as well as to restrain growth in M1 and M2 or so we
thought. Now 2 questions do come up in relation to this and Peter is going to describe what he did and when and how, but there are 2 more general questions that are continuously raised in relation to this procedure and system. And one is would the adjustment process have worked better if we didn't have lagged reserve accounting, and another is would it have worked better if the discount rate were more flexible. With regard to lagged reserve accounting, clearly that makes it almost impossible in the very short run to hit any total reserve type target. Hitting such a target may be impossible in any event in the short run, but the lagged reserve accounting certainly makes it very clear that it's impossible. For example, in the last 2 weeks of October the reason we came back, money supply came back under control was that demand deposits dropped very sharply in those 2 weeks, but we didn't get a drop in required reserves commensurate with that because the demand deposits had been strong in the previous 2 weeks and therefore the funds rate pressures emerged in the last part of October at a time when the money supply was already adjusting down, in lagged response really, to what had happened early. Moreover, the total reserves then were conditioned by the required reserves released in the last half of October to meet the demand deposits that were created in the first half of October. There was no way to reduce those total reserves because banks had to meet their reserve requirements. If Peter didn't provide the reserves at the Desk they would borrow them, and borrowings rose substantially as did the federal funds rate. If there hadn't' been lagged reserve accounting, the total reserves wouldn't have been as far off path in the first half of the month as they in fact were. That is, required reserves would have gone dow in the last half of October and the total reserves would have gone down, maybe not to the full extent, but at least to a considerable degree. You did begin to get that adjustment that would have occurred in the last half of October in early November, and that's the essential reason why the total reserves in November, the actual total reserves are not as far above path as they were in the first half of

October. Banks had made the adjustments, demand deposits were weakening, and required reserves were coming down relative to the original path, and so the deviation of total reserves from path was only $\$ 303$ million in the 3 weeks ending November 21 whereas it had been $\$ 390$ million for October 10th through 31st. So what the lagged reserve accounting did, was in effect, delay the adjustment in total reserves and makes it more difficult to aim at a total reserve target over the very short run. In addition, it probably means that there would be a little more fluctuation in the federal funds rate from week to week than if you didn't have a lagged reserve, again because it delays the adjustment, it doesn't come quite as promptly as it otherwise would. In light of these possibilities, we are looking at the question of whether you shouldn't do away with lagged reserve accounting and with the aim of presenting the Board with memo in the not too distant future in that regard. I might say that $I$ think it's not a simple question, and that the monetarists publicity in that respect is much overdone. Most of us have never believed that lagged reserve accounting should have been put in place to begin with but it's very hard to argue that its actually fatal to control of the aggregates over the length of run of 3 to 6 months when you consider you are dealing only with a 2 week lag. But it does have the deficiency I believe in any week, in any given week, of meaning that there's not a tight relationship between the reserves you supply and the deposits because in some theoretical sense deposits can be infinite or whatever you want because they don't relate to the reserves that are supplied in that week by the Desk. In turns out in practice of course they're not infinite because bank responds to the emerging federal funds rate and that's what determine in effect, their deposit and investment processes. But it is theoretically, a little bit odd to be on a reserve path and yet have in place a system which says in any given week there is the possibility that deposits can be almost anything the banking system wants although you recognize in practice that it's interest rates that determine the deposits from both and
the banks and the public's point of view. So its not the exactly the world's best public relations reserve structure if you are on a reserve target. But there are, there will be a number of practical problems should the Board want to do away with it, and there will be a difficult decision in terms of the careful assessment of benefits and costs. The other issue that gets raised is whether the borrowings has been a factor that has made a problem, that is in throwing us off path or whether it's a buffering factor in the adjustment process and what implications does this have for the discount rate. As you can see in the 4 weeks ending October borrowings were $\$ 2.1$ billion, well above what we had originally put in there, and of course that was expected to happen if demand was strong. And the 3 weeks ending November they have dropped down to $\$ 1.8$ indeed most recently or down to around $\$ 1.6$. The, I believe most of us would feel that the expansion borrowing most of which occurred in the second half of October when borrowing rose to $\$ 3$ billion and the funds rate up to around 15 percent reflected the process by which banks were adjusting to the pressure being put on them by the Desk holding back on what the Desk can hold back on which is nonborrowed reserves. As the Desk held back not that because banks borrowed, were forced to borrow the required reserves hat had been created 2 weeks ago, and in that process the funds rate went up, market interest rates went up, and bank begin making the adjustments as did the public and indeed more rapidly than one could even have believed ahead of time in your optimistic frame of mind and perhaps coincidentally began making the adjustments that would bring them back to path. As I say the total reserves began coming back in the next 3 weeks. I have, if the $\$ 3$ billion of borrowing had developed with a funds rate not rising to $15-1 / 2$ but staying at 13 then it seemed to me there was clear evidence that the banks were not making those adjustments. That is they were simply borrowing and not doing the other things that might be required to get demand deposits back on path. However, when the funds rate went up 15, 15-1/2 percent, I believe that was evidence and we took
that view here even before we had the November results, that that was evidence that the banks were probably in fact making the adjustments that were likely to lead to slower money growth later, and therefore you did not have a clear reason at that high level of borrowing to raise the discount rate because you had adjustments in process as evidence by the behavior of the federal funds rate. That leads to the somewhat paradoxical conclusion that if borrowing had risen to $\$ 3$ billion and the funds rate had stayed 13 percent and had a stronger reason to raise the discount rate than if the funds rate rose to 15 percent, because if the funds rate had stayed at 13 banks weren't making the adjustments and therefore you would have raised the discount rate and really make it expensive for them to borrow the amounts they had to borrow given the nonborrowed reserves that were being put in. Well be that as it may if banks had continued at that $\$ 3$ billion level of borrowing for more than a couple of weeks and the funds rate had continued at 15 , it might have been very clear that not enough adjustment had been in train in which case of course a rise in the discount rate given the nonborrowed reserves would put further upward adjustments on market rates and give banks further incentives to sell bills and do things like that, cut down loans and therefore lead to a slower money growth. So in this process the discount rate becomes a weapon which can be used in case the nonborrowed reserve path or whatever adjustments in that path are being made by the Manager aren't sufficient to cause money growth to slow down or speed up as the committee might want. The discount rate can be used to reinforced. That is a rise in the discount rate would tend to reinforce upward pressures on market rates again unless the Committee asked the Manager to offset that by adjusting its nonborrowed up. And a decline in the discount rate can be used to reinforce pressures for lowering the funds rate. Now with that kind of background, that doesn't argue for a very different use of the discount window than use of the discount rate than before. It still leaves it flexible and judgmental but adds a different wrinkle in its use. Really an economic wrinkle, it almost
says that that should only be adjusted more for long-term purposes and not for short run adjustment purpose. On the other hand, it does seem a little odd to have banks borrowing $\$ 3$ billion at the basic discount rate if that's just short term adjustment borrowing, so we are trying to, we are considering for consideration by the Board and the Presidents a number of options in managing the discount window under this procedure. Now one of course is a perfectly flexible tied discount rate which has been discussed widely before. One of course is doing nothing any different from what you are doing now, but a third one, one which I think might have some interest is to have a second discount rate above the basic rate, but not like the, but available to banks for these kinds of buffering operations, that is they have a lot of required reserves, they are making adjustments that would bring money growth down, but to make these adjustments more orderly as was the case they are borrowing from the system. Now there is some possibility of developing a discount rate higher than the basic rate for that kind of borrowing, and there is the possibility in order for administration of the window to be the same district by district in that kind of circumstance to make that more or less automatic related to lines of credit of one sort of another with build-up incentives for them not to use them continuously, that is the rate goes up if you have used it more than one week, it goes up at 2 weeks, it goes up again etecera. Well I'm just mentioning these possibilities as the sorts of things that we are trying to consider and would like to when we have it worked out a little more have discussion with the discount conferent, the proper discount officers group, and of course bring it through the get comments, bring it through the Presidents Conference and what have you before it comes to a Board consideration. But there is nothing in the, this will sort of turning the basic borrowing privilege on its head, that is the basic borrowing privilege which for small banks, we are thinking also now of a kind of a money adjustment credit line for large banks with built in incentives such that you don't, its not a contribution to capital; it's
actually used for an adjustment and then goes away because price might go up to keep it. Well that kind of thing might have speeded up even further the response to, although its hard to conceive a response really being any faster than we seemed to have gotten here, but again I mention that could be coincidental. Well Mr. Chairman I have probably talked at too much length, but those are the, that concludes the comments I would have on this particular set of operations thus far.

Notes for FOMC Meeting

November 19, 1979
Scott E. Pardee

Since the October 6 actions by the Federal Reserve, exchange market participants have had to contend with a string of bad news for the dollar: continuing poor price figures in the United States, another large trade deficit for the U. S. in September, renewed leapfrogging of oil prices by individual OPEC members and threats of even greater increases in December, a further round of official interest rate hikes abroad, including a jump of Britain's MLR to 17 percent last week, and the confrontation between the Iranian and the the United States governments in which a threat by the Iranians to pull their funds from U. S. banks prompted the U. S. to freeze official Iranian funds in U.S. banks, including $\$ 1.3$ billion on the books of the Federal Reserve Bank of New York.

On balance the dollar has weathered all this fairly well. Against the German mark it is currently about $21 / 2$ percent below its post-October 6 highs and about $21 / 2$ percent above its pre-October 6 lows. Since October 6 we have managed to keep our intervention powder dry; over the past 7 weeks we have intervened only twice and that was in the past week and in the modest total of $\$ 14$ million out of balances.

The immediate uncertainties of the Iranian threat to pull their funds and the freeze of those funds by the United States can work for us as well as against us. Foreign exchange traders and brokers generally are being cautious themselves and it would be difficult to move large blocks of funds through the market in these circumstances. Moreover, dollar interest rates have been high enough to make it expensive for speculators to go short of dollars. But over time, as long as the standoff between the two governments remains unresolved the uncertainties can only work against us.

We have made every effort to reassure central bankers in the Middle East and OPEC generally of the unique circumstances of the freeze, but the central banks are only the caretakers of the funds and must yield to government policy. Moreover, the central banks are not the only holders of funds in many of these countries. A long list of dollar holders in the Middle East and OPEC, while perhaps not supporting the present government in Iran, are wondering when their turn will come to have funds blocked by the U.S. government as a result of a political disagreement. Certainly the financial press has encouraged them to wonder, and diversification out of dollars is likely to continue

What has protected the dollar up to this point has been the higher interest rates in the United States following the October 6 measures and the market's positive attitude toward those measures. Even as the Federal funds rate has fallen back from its midOctober highs, the exchange market took this in stride in view of the evidence of slower growth for the aggregates and indications that the economy may be slowing down. Nevertheless, just about everybody in the market stresses to us that the only thing going for the dollar right now is monetary policy.

Since October 6 we have reduced our swap debt through operations with correspondents. In marks, we have repaid a total of $\$ 454$ million equivalent, leaving $\$ 3,327$ million. In Swiss francs, we repaid the full $\$ 44$ million equivalent of drawings incurred in September-early October, at a modest profit to us.

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NOTES FOR SEMINAR ON NEW APPROACH
    TO OPEN MAREET OPERATIONS
        PETER D. STERNIJIGHT
            NOVEMBER 19,1979
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Mr. Axilrod has described derivation of paths for total and nonborrowed reserves. These have weekly values, but at the Desk we look at them in blocks of weeks (e. g. group of 4 and then group of 3) which permits us to aim for reaching path for a meaningful block of time while avoiding some of the gyrations in market conditions that could follow from seeking adherence week-by-week to a path that might have been laid out under Eaulty assumptions some weeks earlier.

Basically, we've sought to aim at bringing out nonborrowed to its path average, but as in the october period we'd be prepared to modify the nonborroved objective in order to provide greater assunance of bringing out total zeserves close to pach. Thus, wimay throhh actober, when it looked as though total reserves would be perhaps $\$ 500$ miliion above path, we deliberately sought to underachieve nonborrowed so as to put more stress on the banking system to adjust credit and deposit growth in a way that would bring total reserves closer to path down the road.

This is not an automatic adjustment, though. It has a considerable judgmental element. Thus in November part of period, when it looked as though total was running
\$200-\$300 million above path, we've been aiming essentially to reach the nonboricowed path, and not undershoot it. Why the difference? At least partly, this is because the overage in expected demand for total reserves does not really reflect excessive growth in monetary aggregates just now. It's been more a function of shifts in the deposit mix, including greater than expected CD growth -- and indeed it could have been argued that these shifts in the mix were a reason to raise the path to some extent, so that actual demand for total reserves would not appear to be so much above path.

Looking at each particular week, we can define an objective for nonoorrowed reserves, and thus an implied level for borrowings since demand for total reserves can be assumed from the known level of required reserves and an assumed allowance for excess reserves. We compare the nonborrowed objective with the projected supply of nonborrowed, which we dexive from daily projections of market factors such as float, Treasury balance, etc. This gives us a rough idea of whether reserves need to be added or crained. Since this comparison is so dependent on projections which can be pretty far off base, we also look to Fed funds rate for some degree of guidance in the way of confirmation of the projections. The extent of this cuidance is less than before, when we primarily focused on the funds rate, though. Thas if reserve projections show a need to add some reserves,
we probably would not, as we might have before, wait until Fed funds were tending to push above their target area before adding the reserves. But we might, under present procedures, hesitate to add the reserves if funds were actually tending to ease significantly in manner that cast doubt on the validity of the projections.

When we view a particular week and compare our projection of the supply of nonborrowed reserves with the desired target, it is not always so simple as merely acting to add or drain thus and so many reserves. For example, we could find ourselves in a week where we aim for nonborrowed of $\$ 40.0$ billion, in expectation that the banke need $\$ 41.5$ billion of reserves and will have to borrow $\$ 1.5$ billion. Suppose further that our projection of supply also shows $\$ 40.0$ billion of nonborrowed reserves -- just the desired amount. yet for one reason or ancther, in early part or week the banks have only been borrowing $\$ 700-\$ 800$ million -either because the supply of reserves is skewed in that week or because the banks are willing to build up reserve deficiencies. Rather than let an enormous reserve need accumulate to be met at very end of period, we might want to take some steps early in week to make the naea for recourse to discount window more clear -- draining some reserves even though we'd expect to have to add them back later. Developments with funds rate might provide guidance on extent to which we would do this.

Another kind of example: suppose we're in a week when we project nonborrowed reserves supply at $\$ 40.0$ billion, and that is also the target level, with banks expected to have to borrow, say, $\$ 1.5$ billion to reach estimated demand for total reserves of $\$ 41.5$ billion. Now suppose that banks on this occasion are borrowing $\$ 2.5$ billion in early part of week. We may want to take Desk action to add nonborrowed reserves just to relieve the demand for borrowing, even though our projections say nonborrowed will be just right without action. In this case, we'd probably have to take out some nonDorrowed reserves later in week, to reach desired nonborrowed average.

It could happen that toward latter part of a week. like that last one, banks have already borrowed more than we intended that they should, and are in process of building up big reserve excesses. We could stick with our nonborrowed objective for the week and permit a great abundance of reserves at end of week to drive down the funds rate. At same time, we'd be permitting total reserves in that week to come out substantially above path, since in the case envisaged here there's no way, mathematically, that borrowing could come down to the desired weekly average level once it had stayed high over the first 4 or 5 days of the week. My own inclination here would be to take a middle course -- taking out some nonborrowed reserves and thus letting nonborrowed turn out
somewhat below target, but leaving enough nonborrowed reserves there so that some distinct easing in money market occurred and at least the daily levels of borrowing dropped down even if we could not pull down the weekly average borrowing as far as desired.

REPORT OF OPEN MARKET OPERATIONS

Reporting on open market operations, Mr. Sternlight made the following statement.

A review of domestic open market operations since the September meeting of the Committee naturally centers on the Committee decisions reached at the special October 6 meeting, Desk implementation of those decisions, and market reaction thereto. First,briefly reviewing operations from the time of the September 18 meeting up to October 5, the Desk focussed on achieving reserve conditions consistent with Federal funds trading around 11 1/2 percent. By October 5, the funds objective had been raised a bit to 11 1/2-11 3/4 percent, against a background of stronger money growth and a deteriorating atmosphere for the dollar abroad. A sizable volume of reserves was supplied during that interval, especially in the final days of September. Despite repeated reserve injections Federal funds trading moved up to about 12 percent around the end of September, reflecting the alrge absorption of reserves from market factors, especially a high treasury balance, as well as quarter-end statement date pressures. The funds rate receded to about $115 / 8$ percent by October 5.

Following the October 6 meeting, the focus of operations shifted from achievement of a Federal funds rate expected to be consistent with desired growth of monetary aggregates, to the provision of reserves deemed consistent with desired monetary growth. The Board staff developed paths for total and nonborrowed reserves expected to be supportive of growth in $M_{1}$ and $M_{2}$ at annual
rates of about $41 / 2$ and $71 / 2$ percent, respectively, from September to December--the rates chosen by the Committee as acceptable upper bounds for fourth quarter performance. The basic nonborrowed reserve path assumed a $\$ 1.5$ billion level of borrowing, a little above the averate level prevailing in recent previous weeks, in order to impart a somewhat greater measure of restraint on bank reserve positions at the outset of the new program. At the same time, it was anticipated that Federal funds trading, while free to move in the broad $111 / 2-151 / 2$ percent band set by the Committee, might initially tend to be in the area of 13 to $131 / 2$ percent.

For about the first week of the new program, it seemed that monetary growth and reserve growth were about on track as the Desk aimed for path levels of nonborrowed reserves expected to be consistent with borrowings of around \$l.5 billion. Federal funds in that period ranged fairly widely from day to day but tended to average in the area of 13 to $131 / 2$ percent. By the second half of October, it appeared that growth in the monetary aggregates was substantially stronger than contemplated earlier, generating demands for reserves well above path levels. In response, the Desk sought to hold nonborrwed reserves down to, and even somewhat below path levels, thus forcing the banking system to meet demands for abovepath levels of total reserves through greater recourse to borrowings. In the process, borrowing rose for a time to the $\$ 3$ billion area-actually a little higher than the Desk. intended, and the funds rate pushed to around the $151 / 2$ percent top of the Committee's broad range--exceeding it on a few days and even slightly exceeding that level for one statement week on average. Toward the end of October
it was learned that some of the excessive strength in the aggregates and in the above-path demand for total reserves had reflected reporting errors from a large New York bank -but even after correcting for this it was still observed that demand for reserves was running well above path levels, so that the System's more restraining posture in the latter half of October was still appropriate for that period. For the four weeks ending October 31, total reserves averaged about $\$ 390$ million above their path level, while nonborrowed reserves averaged about $\$ 230 \mathrm{milli}$ 號 below their path. To obtain needed reserves, banks resorted to the discount window, so that borrowing averaged about $\$ 2.1$ billion -- or about $\$ 600$ million above the level initially assumed in constructing the nonborrowed path.

Coming into early November, it appeared that growth in the aggregates was abating considerably. Along with this, expected demand for reserves has been closer to path -- although still somewhat above it because of various factors in the deposit mix including stronger growth in CDs than had been anticipated. In these circumstances, the Desk has been aiming essentially at the path levels for nonborrowed reserves, anticipating that borrowing would come down closer toward the $\$ 1.5$ billion level and that funds would trade more in the middle. of their broad range rather than near the Committee's upper bound. On the last available estimates, it looked as though, for the three weeks ending tomorrow, total reserves might average about $\$ 300$ million above path, nonborrowed reserves might be close to path, with borrowing averaging in the area
of $\$ 1.8$ billion, and Federal funds averaging in the neighborhood of $131 / 2$ percent.

In terms of actual System operations during the period, the Desk was mainly on the reserve-supplying side. From September 18 to October 5, outright holdings of bills were increased by about $\$ 933$ million, mainly reflecting purchases. from foreign accounts, while Treasury coupon holdings increased $\$ 634$ million. From October 6 through November 19, bill holdings were up by $\$ 1,733$ million, as purchases of nearly $\$ 2.7$ billion from foreign accounts were partly offset by redemptions and sales in the market. The System also bought $\$ 63$ million of coupon issues from foreign account. Matched sale-purchase transactions were arranged almost every day with foreign accounts, although on several occasions some of the foreign short-term investments were passed through to the market as repurchase agreements. The System also made short-term reserve adjustments through repurchase agreements and matched sale-purchase transactions in the market. The use of these short-term reserve adjustments may have been somewhat less in the period since October 6 than it would have been under the old approach to reserve management, with its greater sensitivity to the funds rate, but it is too soon to reach a firm judgment on whether the new approach will make a significant difference in this regard.

Market interest rates have risen sharply in the past two months, with most of the rise coming since October 6. For a time, especially just after October 6, the orderliness of the market was in question, and the whole period since early

October has been marked by unusual price volatility as dealers have been less willing market makers and many institutional investors retreated to the sidelines. A greater measure of stability was beginning to return by early November, but the markets were still quite volatile and nervous by past standards.

There was a fair sized rise in yields, by past standards, from the September meeting date up to October 5 -about l5r30 basis points for most Treasury issues -- as market concern grew over strengthening money growth, a weakening dollar internationally, continuing inflation, and an absence of signs of weakness in the economy. These moves were far overshadowed in the days after October 6 when rates jumped steeply in very thin markets. The initial impetus was the October 6 program, with its 1 percent discount rate increase, and firm message of restraint, highlighted by the System's departure from the traditional Federal funds anchor. After the initial vigorous upward rate reaction, rates pushed still higher in late October following publication of higher money growth data along with a market sense that the System was encouraging still greater restraint. In the final weeks of the period many market rates came down somewhat, encouraged by the downward revisions and subsequent slower growth in money supply, and by a sense that the System was promoting a lesser degree of pressure on bank reserve positions and the money market. Developments related to Iran dented the recovery but have not distrubed the domestic markets greatly up to this point.

On balance, for the period since October 5, Treasury
bill rates have risen about 1 to $13 / 4$ percentage points, although at their peak they were up more than 2 percentage points. At one point, the 3 -month bill touched 13 percent, up from 10.70 on October 5, while most recently that maturity has been around 12 percent. Yields on Treasury coupon issues out to about 10 years are up around $11 / 4$ to $11 / 2$ percentage points while longer issues have risen roughly 1 percentage point -- equivalent to a price drop of 8 or 9 points on the longest issues. The yield rise at the long end is surprising against other recent experience when market participants seemed to welcome vigorous official action designed to curb inflation, feeling that the long-term effect should be toward lower rates. The reaction this time, in my view, reflects a sentiment that might be summarized: "I respect what the Fed is trying to do but I want to see some results before $I$ become a believer."

Interestingly, the primary dealers with which the Desk trades did not on the whole fare too badly during this turbulent period. In the aggregate, they were positioned by October 5 to withstand restrictive moves which had been widely anticipated. We have surveyed profit results for October and found that gains outweighed losses both by number and dollar volume. The net profit -- a very rough estimate -- was on the order of $\$ 40$ million. Still, it should be emphasized that the markets remain quite jittery -- and in a sense it is because of their skittishness that a number of firms managed to avoid losses.

Unrelated to recent profit developments, I might mention two prospective changes in the Desk's dealer relationships. First, we have effectively ceased trading with Blyth Eastman Dillon as they are in process of merging into Paine Webber, which is another dealer on our list. Second, we are about to take a further step in the process of disengaging from trading with Second District Securities, as their volume of activity has been falling well short of our standards.

## FOMC Presentation E.M. Truman November 20, 1979

In the course of preparing this month's projection, we have revised our assumptions about world oil prices. Specifically, we are now assuming that in the fourth quarter of this year the average price of oil imported into the United States will be 73 percent higher than in the fourth quarter of 1978 . In addition, we are assuming that the price will rise by a further 23 percent by the fourth quarter of 1980 to more than $\$ 28$ per barre1. We have assumed that OPEC oil exports will continue at about the 1979 rate.

These revised assumptions have both direct implications for the U.S. economy, which Mr. Kichline will report on in a few minutes, and indirect implications, through effects on economic developments in the rest of the world.

The staff now estimates that during the four quarters of 1979 real GNP in the 10 major foreign industrial countries will increase at an average rate of about 3 percent compared with almost 4 percent in 1978. Growth abroad this year has been supported by personal consumption expenditures and private fixed investment, especially in Germany and Japan. This expansion, coupled with the lagged effects of the dollar's depreciation in 1977 and 1978, has produced strong growth in U.S. non-agricultural exports. In real terms, GNP exports of goods and services are expected to be 7 percent higher this quarter than a year ago. Despite an oil bill that will be more than $\$ 15$ billion higher in 1979 than in 1978, our trade deficit will be lower, although recently it has been on a plateau in the $\$ 25-30$ billion range at an annal rate. We now expect a current account position of zero in 1979, compared with a deficit of $\$ 14$ billion in 1978.

Turning to 1980 , we expect that the rate of increase of real GNP in the major foreign industrial countries will slow significantly to 1-1/2 percent over the next four quarters. The average rate of increase of
consumer prices is expected to decline from about 9-1/4 percent this quarter to about 7-1/2 percent in the fourth quarter of 1980.

The cause of the expected slowdown in growth abroad varies across countries. The transfer of wealth implicit in the oil price increases and subsequent policy responses to high inflation rates are largely responsible for the slowdowns in Germany, Japan, France and Italy. On the other hand, the United Kingdom and Canada are roughly self-sufficient in energy and the direct impact on wealth of the so-called oil tax is absent. However, growth in Canada will be very sluggish largely because of weakening U.S. demand, and real GNP is expected actually to decline in the United Kingdom due, in part, to the loss in U.K. price competitiveness and, in part, to the short-run effects of the policies of the Thatcher government.

I would stress that there are significant risks in these forecasts of lower rates of growth abroad and higher rates of inflation: Oil shortages and more pessimistic oil price scenarios could develop. Policy responses to high inflation rates could be more vigorous than we now expect. The effects of a simultaneous weakening of demand in the industrial countries may have been underestimated.

Nevertheless, based on our present outlook for growth and inflation here and abroad and our revised assumptions about oil prices, we expect a $\$ 10$ billion reduction in the U.S. trade deficit in 1980 to less than $\$ 20$ billion. Another $\$ 15$ billion increase in our oil imports is expected to be more than offset by somewhat higher agricultural and non-agricultural exports, while U.S. demand for non-oil imports stagnates. With some further increase in our surplus in other current account transactions, we would expect a 1980 current account surplus of about \$14 billion.

## FOMC BRIEFING

Domestic economic activity this quarter appears to be declining, judging from the limited statistical evidence now available and broadly based qualitative information. While the forecast for the current quarter is little different from that presented in September, the staff's projection for 1980 has deteriorated appreciably--with real output significantly lower and inflation higher. The changed outlook reflects our reading of recent developments, including the impact of the October 6 monetary policy actions and the changed assumption of world oil prices.

The current quarter took off from a level of activity that was quite high, and both employment and production held up well in October. Nonfarm employment in October in fact expanded by more than 300,000 , well above the average monthly increase in the preceding several months. Most of the job gain occurred in trade and services while manufacturing employment increased a little. The unemployment rate rose 0.2 percentage point to 6.0 percent, the upper end of the narrow range that has prevailed all year. Since the early Oetober labor market survey there has not been an upsurge in unemployment insurance claims nor any consistent reports of major layoffs outside the automobile industry. It seems a bit early for substantial weakness in demands for labor to have appeared, particularly given strong final sales last quarter and tight markets for skilled labor which may make firms reluctant to give up resources until they become more certain of weakness in sales.

Sales at the retail level are reported to have declined markedly in October, following rapid growth during the third quarter. The drop was attributable principally to developments in consumer durables as nondurable
purchases changed little in nominal terms. Furniture and appliance sales moved lower while auto sales turned in an especially poor performance. Domestic auto sales moved still lower in the first 10 days of November, dealer stocks have remained uncomfortably high for a number of models, and manufacturers recently reinstituted dealer discount programs.

Even if retail price cutting for autos succeeds in boosting domestic auto sales, this seems likely to be only a transitory force in an otherwise weakening market for consumer durables. The consumer durables and investment sectors are, of course, traditionally key cyclical elements and in fact represent the principal sources of weakness in the staff's projection. Although consumption spending generally held up well this year in the face of declining real disposable incomes, the forces against sustained expansion have been mounting. Developments outside the consumer sector, such as another round of sizable increases in the price of imported oil, imply further erosion of real disposable incomes and this will be occurring at a time when the savings rate is at historically very low levels--that is around 4 percent last quarter-and debt burdens are at record highs. On the financial side, consumer credit price and nonprice terms have tightened appreciably in recent weeks, and durables purchases are heavily dependent upon credit financing. Should consumers try to be particularly generous this Christmas, it would seem that balance sheet strains could be intense early next year and portend a weaker outlook than that now in prospect.

In the investment sector, too, the staff forecast has been reduced. For residential construction the only immediate question seems to be how fast and how far starts will fall. In October, starts declined to a 1-3/4 million unit rate from the inflated September level, while permits dropped a bit more than starts. Available reports clearly indicate consumers are backing away from the market, lending institutions remain cautious, and builders are scaling
back their construction programs. The forecast shows starts dropping to the 1-1/4 million area early next year and turning up moderately thereafter. For starts to behave in this fashion we believe it is necessary that the uncertainties now prevailing in the mortgage market dissipate and that mortgage and construction loan rates turn down over the next few months.

Business fixed investment prospects also seem to have weakened. New orders and construction contract awards in real terms generally appear sluggish and anticipations data for 1980 suggest slowing of outlays. The McGraw-Hill survey, for example, shows no change in real spending for next year, and 1980 seems to be shaping up as a recessionary period in which such surveys typically overstate outlays. The higher interest rate structure now prevailing and assumed in the forecast, along with reduced business sales, seems likely to prompt reductions in fixed investment plans as well as cutbacks in inventory accumulation.

The forecasted behavior of the business and consumer sectors, the net export picture discussed by Mr. Truman, and small growth of government purchases adds up to appreciable declines in activity this quarter and during the first half of 1980. For the four quarters of 1980 real GNP is projected to decline about 1-1/2 percent, compared with roughly no change expected at the September meeting of the Committee. The unemployment rate is projected to be above 8 percent in the second half of 1980.

On the price side the fixed-weighted business product deflator has been increasing around 10 percent all year and we expect that pace to continue into the first half of next year. The changed oil price assumptions and related effects on domestic energy prices added net about $1 / 2$ percentage point to the price forecast this month. Although weaker product and labor markets are expected to generate improved price performance, that effect will be swamped
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in the shorter run by energy developments. A more favorable outlook would emerge if OPEC exercises moderation in pricing or if inflationary expectations improve and this carries into wage and price behavior. But for the near term it seems most likely to us that inflation will remain intense.

As indicated in the blue book, the behavior of the monetary aggregates thus far in the fourth quarter has not been far off objectives implicit in the FOMC's October 6 decision. Growth in money supply measures, and in bank credit, has decelerated markedly. M-1 expanded at a strong pace in the first half of October, but subsequently the outstanding level contracted, and through mid-November $M-1$ has been running well below path-the path being defined as a $4 \frac{3}{2}$ percent annual rate of increase from September to December. $M-2$, on the other hand, has been expanding at a rate equal to path, taken as a $7 \frac{1}{2}$ percent annual rate over the fourth quarter. Given the weakness in $M-1$, the relative strength of $M-2$ reflects the ability of banks to offer money market certificates and large time deposits at competitive rates and the desire of the public to place funds in such deposits at the very high level of interest rates prevailing.

Of the three alternatives for the aggregates presented to the Committee, alternatives $B$ and $C$ seem more consistent with the October 6 decision than does alternative A. At that time the Committee indicated it was willing to tolerate somewhat slower growth in the aggregates than specified in view of the very rapid growth that had taken place over the summer. Alternative $C$ does call for a slower growth in M-1 over the fourth quarter than the $4 \frac{3}{2}$ percent earlier specified, but the M-2 growth accompanying it would still be expected to be a bit above the Committee's objectives for that aggregate. Alternative $B$ calls for a $4 \frac{1}{2}$ percent growth in M-1 over the quarter, thereby requiring a greater acceleration of M-1 growth between now and year-end than alternative $C$ and implying somewhat greater expansion of M-2.

With regard to the probable course of interest rates, alternative $B$ seems more likely to involve a decline than alternative $C$. Under alternative $B$,

M-1 growth would have to expand by about a $9 \frac{1}{2}$ percent annual rate from mid-November to the end of December. The expansion in reserves-aparticularly in nonborrowed reserves-needed to support such $M-1$ growth would probably lead to a reduction of interest rates, since nominal GNP is not expected to be strong enough to bring forth a commensurate demand for money and reserves at prevailing interest rates. On the other hand, alternative c-which involves a somewhat slower rate of growth in M-1 between now and year-end--might be associated with unchanged or rising interest rates. With this background, various considerations might be highlighted that the Committee may wish to take into account in deciding at this meeting upon specifications for the aggregates, and also the Federal funds rate range.

First, alternative A would not be attractive unless the Committee wishes to adopt a faster track for the aggregatesthan was implicit in its October 6 decision.

Second, between alternatives $B$ and $C$, the choice depends in part on the extent to which the Committee might wish to tilt the odds toward a decline of interest rates in the period ahead, or tilt toward a small rather than a large decline.

There are reasons both for and against such a tilt. On the "pro" side are:
(a) The apparent gathering weakness in economic activity;
(b) An effort to ease pressures in the mortgage market, partly to help sustain economic activity and partly to avoid building any more upward pressures than necessary into the consumer price index; and
(c) An effort to ensure that the growth in the aggregates would be well sustained early next year, when economic activity is projected to weaken more.

On the other hand, reasons against a policy that enhances the odds on a fairly substantial decline of interest rates over the near term would be:
(a) The need to show continued restraint against inflationary pressures, with inflationary expectations showing little sign as yet of abating;
(b) A desire to avoid actions that would tend to undermine the exchange value of the dollar in the weeks immediately ahead, particularly in light of uncertainties in the oil market and the Middle East; and
(c) A desire to ensure that there will not be an excessively rapid expansion of the aggregates early next year that might have to be countered by a premature rise in interest rates if the credibility of the System's program for limiting money growth is to be maintained.

In addition, Mr. Chairman, I might note that the Committee can, through its specifications of member bank borrowing, affect the nonbor rowed reserve path that is initially constructed and therefore at least the starting level of the funds rate. The staff has associated a borrowing level of about $\$ 1 \frac{1}{2}$ billion with alternative $B$ since that was the original choice of the FOMC on October 6; this level is a bit lower than the borrowings of recent days. But the Committee clearly has the option of making a different choice. For example, the Committee might adopt the alternative $C$ path for the aggregates but associate with it not the $\$ 2$ billion of borrowing assumed by the staff, but $\$ 1 \frac{1}{2}$ billion. This would be reasonable if the Committee did not wish to countenance the initial bias toward tightness that is implicit in a level of borrowing around $\$ 2$ billion. The tightness then would not emerge unless money demand turned out to be stronger than the alternative $C$ path, in which case borrowing would over a period of weeks
tend to rise up to the $\$ 2$ billion area, or even higher in the process of restraning that demand.

Finally, the Committee can aiso of course adjust the funds
rate ranges themselves. If the Comittee wished to be reasonably certain that interest rates would not rebound substantialiy in an upward direction over the near term, the upper limit of the funds rate range could be reduced--for example, the top of the alternative $B$ range could be reduced from $15 \frac{3}{2}$ percent to $14 \frac{2}{2}$ percent or so. Such a policy would seem to be most consistent with the paths of the aggregates of either altermatives $B$ or $A$, paths that seem more likely than $C$ to be associated With stable or decliniug interest rates.

