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Statement by

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before the

Committee on Banking, Housing, and Urban Affairs

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I am grateful for this opportunity to testify once again on certain proposals this Committee is considering to ensure the continued capacity of the Federal Reserve System to conduct effective monetary policy in the years ahead. I am convinced that, after long debate and with a final effort by this Committee, a fully satisfactory legislative solution can be enacted in a matter of weeks -- legislation that would have broad support from the interested constituencies, would fall within acceptable limits of cost to the Treasury, and most important, enable the Federal Reserve to maintain disciplined control of the money supply and meet its other responsibilities for protecting the safety and soundness of the banking system.

The need for legislation is strongly reinforced by the decision of the Federal Reserve to adopt new operating procedures on October 6. These new procedures -- which are described in an attachment to this testimony -- place much greater emphasis on reserves as the instrument for controlling money growth. Thus far, the procedures have worked reasonably well. But their effectiveness will be undercut as the share of money not subject to reserve requirements set by the Federal Reserve increases. Legislation to keep Federal Reserve control over the nation's reserve base from atrophying further is, in that context, an essential element in our anti-inflationary program.

As we deliberate, the problem of attrition from Federal Reserve membership intensifies. In the three years that Congress has

debated this issue, the proportion of bank deposits held by member banks dropped from 73 percent to about 70 percent. That drop occurred despite the fact that many institutions have been willing to defer withdrawal from membership while awaiting legislation that would result in more equitable conditions. Now, it is evident that patience has run thin. During the fourth quarter of 1979 and the first few weeks of 1980, 69 banks with about $7 billion in deposits have given notice of withdrawal from membership. The loss of deposits in this short period exceeds that of any full year. The recent withdrawals by two very sizable banks in Pennsylvania, with more than $3 billion in deposits between them, seems to me especially significant. They show that much larger institutions than before are now prepared to take the step. As one banker has put it, the cost of membership is "too high a price to be a member of anything."

It is my judgment, and that of many others, that, in the absence of legislative action, the stream of member banks withdrawing will reach flood proportions. Financial innovation, shifting competitive patterns, and strong inflationary pressures with their related high interest rates, all have contributed to an increasing burden of membership. It has become progressively more costly and more difficult for banks to justify continuing their membership. It was not so long ago that, among medium-sized and larger banks, membership was pretty much taken for

granted. Now in more and more areas of the country, that attitude is being reversed; it is continued membership that has to be justified to the stockholders and customers that ultimately shoulder the burden. Even banks conscious of the importance of a strong central bank and reluctant to give up a national charter find that justification increasingly difficult or impossible in the light of the heavy burden involved.

A recent survey by Reserve Banks, based entirely on information volunteered by members in the normal course of business, found that 320 member banks were considered certain or probable to withdraw. Another 350 were actively considering withdrawal. These 670 banks -- some of which have already initiated withdrawal procedures -- represent more than 10 percent of the System's membership and have in excess of $71 billion in deposits. If these banks, in fact, withdraw, deposits of banks holding Federal reserves will decline to 64 percent of the deposits of the banking system. And there is no doubt in my mind that many more banks are considering withdrawal than have come to our attention and that the momentum would build further.

I would remind you that loss of members has several adverse effects on monetary control, the soundness of the banking system, and the strength of the Federal Reserve. As attrition causes the total amount of reserves held at Federal Reserve Banks to decline, the "multiplier" relationship between reserves and money increases and tends to become less stable. Consequently,

fluctuations in the amount of reserves supplied -- and these fluctuations inevitably have a range of uncertainty -- can cause magnified and unintended changes in the money supply. As attrition increases the proportion of deposits held by non-member banks, the possibility of unanticipated (and unpredictable) shifts of deposits between member and nonmember banks increases, destabilizing the relationship between reserves and money.

As banks leave membership, they also lose ready access to the Federal Reserve discount window. Operation of the window not only can assist otherwise sound banks to weather unexpected deposit outflows, but also provide an essential safety-valve function for the monetary system as a whole by enabling individual institutions to adjust more smoothly and without disruptions to changing credit conditions. At the same time, the Federal Reserve is losing the intimate supervisory surveillance of individual institutions important to the administration of the discount window and effective discharge of our supervisory and regulatory responsibilities.

Finally, the structural consideration so central to the formation of the Federal Reserve System would become relevant again as larger and larger segments of the banking industry come to hold their entire operating and liquidity reserves at other commercial banks rather than maintaining balances with the Federal Reserve Banks. In this setting localized strains may more readily be transmitted to other banks, and individual failures could have more serious repercussions.

Among the relevant criteria for evaluating any proposed legislation are how many banks are covered, the proportion of deposits held by those banks, and the size of the reserve base itself in relation to deposit totals. We have no formula for deciding precisely how large reserve balances need be, or how they should be distributed, to ensure effective monetary control and a well-functioning banking system. I am convinced that reserve requirements must be more equitably distributed among the nation's banks, and I also feel quite sure the Federal Reserve can meet its responsibilities with a smaller reserve base than we now have. But I have grave doubts whether coverage and the reserve base could be reduced as drastically as in the bill (H.R. 7) passed by the House without serious adverse implications for monetary management.

Theorists have put forward arguments that under certain operating hypotheses required reserves may not be needed at all, let alone in sizable amounts. The rather abstruse arguments may or may not be valid in certain circumstances. But we at the Federal Reserve are not prepared -- least of all at this critical juncture for our economy -- to commit ourselves to experiments with monetary policy on the basis of untested theorizing about operating without sufficient reserve balances. You will properly hold us accountable for contributing to progress in dealing with inflation and the other economic problems that beset us. For our part, we must have adquate tools to meet that challenge.

In our opinion, a reduction in reserve balances held at Federal Reserve Banks (expressed in 1977 terms) to as little as $10 to $15 billion -- or about $11.5 to $17 billion in 1979 terms -- could prove adequate to conduct monetary policy, provided it is distributed equitably across depository institutions having transactions accounts. But we are not certain of that outcome, and that level of balances -- some 4 to 6 percent of transactions balances and less than 1.5 percent of total deposits in depository institutions -- might not even adequately support Federal Reserve operational requirements. For that reason we would strongly urge at least standby capacity to obtain somewhat larger balances - up to $20 billion or more in 1977 terms. H.R. 7, in contrast, provides for less than $8 billion of balances (in 1977 terms), distributed among only 450 banks.

The monetary policy need for an adequate level of reserve balances creates something of a quandary. Reduction of reserve balances of member banks to that level would not be sufficient to stem attrition in a purely voluntary system, because it plainly would not eliminate the burden of sterile reserves of Fed members. On the other hand, a reduction in reserve requirements large enough to stop attrition would not provide a satisfactory level of reserve balances from the viewpoint of monetary policy. S. 353 would attempt to resolve this quandary, within the context of a voluntary system, by paying interest on the reserves held after some reduction. S. 85 or H.R. 7 approach the problem by making lower, non-interest bearing reserve

requirements mandatory for all depository institutions having transactions types of accounts. However, H.R. 7 provides too small a reserve base covering too few institutions. S. 85 would achieve a much more sizable reserve base than H.R. 7. But it does so at the expense of sizable requirements on time deposits -- requirements high enough to burden significantly covered institutions relative to competing market instruments.

The Federal Reserve Modernization Act (S. 353)

As I just indicated, the amended version of S. 353, proposed by Senator Tower, would deal with attrition from Federal Reserve membership in the context of a fully voluntary system. The bill seeks to eliminate the burden of membership by reducing requirements against most deposits and mandating that all balances held at the Federal Reserve to meet reserve requirements earn interest at rates close to, but still somewhat short of, market rates. Access to services would be restricted to members and to other institutions voluntarily maintaining balances in an amount equal to those required of a member of the same deposit size and configuration. Those services would be fully priced.

Senator Tower's bill, unlike H.R. 7 and S. 85, provides for reserves on all savings deposits and on all time deposits of less than 180 day maturity. Such reserves would be interest bearing, and therefore would not have the same "tax" effect associated with such reserves in a mandatory framework. Thus, there would not be so strong an incentive to shift funds from

these types of accounts because of the reserve requirement, a phenomenon that has been of great concern to the Board in the context of mandatory reserves on time and savings accounts. Nevertheless, it seems apparent that members would still feel somewhat burdened relative to other institutions. In that connection, I would point out that, to maintain an adequate reserve base, actual reserve requirements imposed within the framework of S. 353 would need to be in the upper part of the ranges specified in the bill.

I have examined this approach with care and have sympathy for its objectives because, as I have indicated to the Committee before, I understand and share the nostalgia for retaining elements of voluntarism in the operations of the Federal Reserve System. But, we simply cannot rely on nostalgia in conducting monetary policy. It is the considered conclusion of the Federal Reserve Board that the voluntary approach cannot practically be made effective within the framework of acceptable revenue loss to the Treasury and other objectives. Indeed, it is our judgment that membership attrition would probably continue, although at a much slower rate.

Based on 1977 data, the cost analyses of the basic provisions of S. 353 that I have attached show that the net cost to the Treasury of implementing that bill would fall in the range from $450 to $520 million annually. This appears to be far in excess of amounts acceptable to the Administration or many members of

the Congress The bill also encompasses the possibility of a mandatory supplemental deposit on transactions balances in an "emergency " As the Appendix table indicates, with such supplementary deposits yielding 1½ percentage points less than a market rate (as would be the case under the amendment to S 353 supplied to the Board by Senator Tower), the net cost would still not be reduced to acceptable levels even if the supplemental provision was to be invoked

The dilemma is that without payment of interest on reserves at or very near market rates, a purely voluntary system cannot stem attrition, but the payment of that interest drives up the cost Moreover, it seems unlikely that -- in view of the highly efficient correspondent banking network throughout the country -- many nonmember institutions would be prepared to place equivalent balances with the Federal Reserve to obtain access to services Indeed, under S 353 the effectiveness of monetary policy, whether viewed in terms of the size of the reserve base or ongoing access to the discount window, might ultimately swing on the extent to which nonmember institutions maintained balances to obtain "Fed" services In any event, we would be left with the increasingly awkward problem of discriminating between members and nonmembers in the provision of certain services, such as automated clearinghouse payments, which for practical reasons cannot operate efficiently unless open to all depository institutions Indeed, even now nonmembers have access to those automated services

Therefore, I must conclude that attention should be directed toward approaches that would apply reserve requirements to depository institutions on a universal and mandatory basis. Such a universal approach has the enormous benefit of equitably applying reserve requirements to comparable accounts -- at thrifts as well as banks, at members as well as nonmembers. This is particularly important with respect to rapidly growing components of the nation's basic money supply, NOW and ATS accounts, many of which now escape reserve requirements altogether.

I can readily sympathize with the desire to maintain a voluntary system wherever possible in the provision of governmental services. But, it would be ironic indeed to insist upon that approach for philosophical reasons in an area -- control of money -- which is clearly a specified constitutional function of the Federal Government, even at the expense of impairing the effectiveness with which that function is discharged.

Supplementary Deposits

It is possible to reconcile the seemingly conflicting objectives of equity for financial institutions, acceptable limits on the loss of Treasury revenues, and the provision of a large enough reserve base to ensure the effective conduct of monetary policy by use of a standby authority for interest-

earning supplemental deposits at Reserve Banks along the lines that I suggested to the Committee last fall. Provision of such a supplemental would permit us to attempt to operate with a relatively small reserve base, while providing a "safety net" should experience prove that base inadequate to obtain sufficiently precise control over the money supply. It would entail no added cost to the Treasury and virtually no cost to the banking system. And, from a legislative viewpoint, it could easily be made part of any of the bills before the Congress.

The amendment proposed for S. 353 in fact seems to accept the general logic of that approach. However, the pre-conditions for the imposition and retention of the supplement as specified in the amendment appear so restrictive as to impair its value. The amendment stipulates, for example, that the Board must find that the supplemental deposit is the only means to maintain effective control over monetary growth and it requires a unanimous vote of the Board, provisions that might make it impossible to use the authority even if the overwhelming majority of the Board felt it had enormous advantages over any conceivable alternative.

The provision in the amendment that stipulates that the authority for the supplemental will expire after four years is perhaps a still more serious flaw. It may or may not be needed in four years. But, if the expiration date came at a time when supplemental deposits were in place, an obvious problem would be created for the authority would not be in use at that time

unless it was needed. On the other hand, the fact that it had not been used in four years should not indicate that it would never be necessary. We have no dispute with the point that the authority should not be used lightly and we would be glad to propose procedural safeguards to reinforce that point without vitiating its potential usefulness in a time of need.

Provision of Services and Other Issues

The amendments to S. 353 offered by Senator Tower to require charges for Reserve Bank services and for float are, in principle, acceptable to the Federal Reserve, and similar provisions are in other bills. We believe that pricing is a natural corollary to open access -- but I would also emphasize, however, that open access and pricing are practicable only after reserve requirements are restructured and applied to all depository institutions.

Pricing of System services likely will induce major changes in existing banking relationships. It may have differential effects on large and small, or city and rural, institutions. Overly rigid application of the principles, however sound these principles are, could cause disruptions in banking markets. Consequently, I would urge that the pricing provision allow a degree of flexibility in timing and implementation. For instance,

it should be clear that the Federal Reserve need not precisely match costs and revenues for every service.

I would also urge that the Board be given authority, similar to that provided in H.R. 7, to permit exceptions to full cost coverage where required by the public interest, competitive conditions, or the provision of an adequate level of services nationwide. Indeed, the Board questions whether a charge for the receipt and disbursement of new currency is appropriate at all. The government might normally be expected to provide that service, and in any event, the Treasury already earns some $7 billion per year from the provision of currency through the interest earned on securities held by the Federal Reserve as collateral against that currency.

The Committee also should note that S. 353 does not address the technical problem relating to collateralization of Federal Reserve notes that can arise under legislation that reduces reserve requirements. We are prepared to supply an appropriate amendment that could be attached to S. 353 or to any bill that would deal with the problem.

Conclusion

I am convinced the essential elements of legislation to provide the Federal Reserve with the tools it needs to meet its responsibilities are at hand. The Board of Governors believes these elements should give concrete embodiment to the

following principles, and these principles can be achieved without revenue loss.

- Reserves should be applied to all transactions accounts. Some relatively low exemption level, or a system of graduated requirements for the smallest institutions can be accommodated within this principle.
- When and if reserve requirements are imposed on time deposits, they should be confined to short-term nonpersonal accounts and be at a relatively low level.
- To establish comparable competitive conditions, reserve requirements should be equal for all depository institutions offering comparable accounts.
- Authority should be provided to ensure that the reserve base is of adequate size for the efficient and effective conduct of monetary policy.
- Access to Federal Reserve services should be open to all depository institutions with transactions accounts, and the Reserve Banks should, in principle, aim to recover the full cost of those services from pricing -- provided all institutions have a comparable reserve burden.
- Consistent with the dual banking system, institutions should remain free to choose a State or Federal charter and membership in the Federal Reserve

System, with its implications for certain supervisory matters and for the election of Federal Reserve Bank Directors, should remain voluntary.

These principles already are incorporated into, or could readily be added to two bills that are before you: S. 85 and H.R. 7. Last September I testified at length on specific modifications to improve S. 85 or H.R. 7 to bring them more fully into line with the essential objectives, and I have little further to add to the comments I made at that time.

In conclusion, let me express again the Board's deep concern that prompt action be taken to ensure that the Federal Reserve has, and for years to come will continue to have, adequate tools to manage the nation's monetary affairs and to ensure a sound and safe banking system. In light of the many new uncertainties facing our nation both at home and abroad, and the enormous challenge of dealing with inflation, we cannot responsibly permit attrition from membership to grow to the stage where it seriously disrupts monetary management and calls into question the strength and independence of the nation's Central Bank. I fear we will soon be perilously close to that point. The principles I have stated are consistent with prompt action. We must not permit the opportunity before us to slip away.

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Estimates for Monetary Improvement Legislation
(1977 Data)

Plan	Actual 1977	S.85 As Amended	S.353 Without Supplemental (High)	S.353 Without Supplemental (Low)	S.353 With Supplemental[a] (High)	S.353 With Supplemental[a] (Low)
Break-points ($ millions)		5/5	35/0	35/0	35/0	35/0
Reserve Ratios (percent)						
Transactions:						
Below break-point		3	3	3	3	3
Above break-point		12	10	3	10	3
Savings		0	7	1	7	1
Time (1)		6[b]	7[c]	1[c]	7[c]	1[c]
Time (2)		0	0	0	0	0
Reserve Balances ($ billions)[d]						
Member	27.3	17.2	21.7	1.0	29.8	9.1
Nonmember	0	3.5	0	0	2.3	2.3
Thrift	0	0	0	0	0.1	0.1
Total	27.3	20.7	21.7	1.0	32.1	11.4
Reserves released		6.8	5.7	26.3	(4.8)	15.9
Revenues ($ millions)						
Cost of reserve requirement changes		428	368	1,713	(311)	1,033
Interest on reserves		0	1,303[e]	109[e]	1,825[f]	631[f]
Revenues from service charges and float[g]		(657)	(657)	(657)	(657)	(657)
Net cost after taxes (55 percent rate)		(99)	456	524	386	454
Coverage (Reserves at Fed)						
Commercial banks						
Members	5,663	3,382	5,398	2,239	5,663	5,663
Nonmembers	0	3,467	0	0	8,758	8,758
Total	5,663	6,849	5,398	2,239	14,421	14,421
Thrifts	0	0	0	0	408	408

Footnotes to Appendix Table

a/ All depository institutions must hold supplementary deposits at Federal Reserve Banks of 3 percent of the first $35 million of transactions balances plus 5 percent of transactions balances above $35 million.

b/ Nonpersonal time deposits.

c/ Short-term time deposits.

d/ Includes supplementary deposits where applicable.

e/ Interest on required reserves of 1/2 percent below the portfolio rate.

f/ Interest on required reserves of 1/2 percent below the portfolio rate; interest on supplementary deposits of 1-1/2 percent below portfolio rate.

g/ Based on float outstanding of $3.8 billion at year-end 1977. Revenue from service charges assumed to be $410 million.

The New Federal Reserve Technical Procedures
for Controlling Money

As part of its anti-inflationary program announced on October 6, 1979, the Federal Reserve changed open market operating procedures to place more emphasis on controlling reserves directly so as to provide more assurance of attaining basic money supply objectives. Previously, the reserve supply had been more passively determined by what was needed to maintain, in any given short-run period, a level of short-term interest rates, in particular a level of the federal funds rate, that was considered consistent with longer-term money growth targets. Thus, the new procedures entail greater freedom for interest rates to change over the short-run in response to market forces. 1/

This note describes the new technical operating procedures and how the linkage between reserves and money involved in the procedures is influenced by the existing institutional framework and other factors. This linkage is relatively complicated and variable, particularly over the short-run, so that, for example, it does not necessarily follow that rapid expansion of reserves would be accompanied by, or would presage, rapid expansion of money. The exact relationship depends on the behavior of other factors besides money that absorb or release reserves, and consideration must also be given to timing problems in connection with lagged reserve accounting.

In setting reserve paths to control money under existing conditions account must be taken of: (i) the prevailing reserve requirement structure, with varying reserve requirements by type of deposit (some of which may not be included in targeted money measures) and by size of deposit; (ii) the public's demand for currency relative to deposits; (iii) availability of reserves at bank initiative from the discount window; (iv) lags in response

1/ Consistent with this, the federal funds rate range adopted by the Federal Open Market Committee for an intermeeting period has been greatly widened.

on the part of the public and banks to changes in reserve supply through open market operations; (v) the growing amount of money-supply type deposits at institutions not subject to reserve requirements set by the Federal Reserve; (vi) lagged reserve accounting. To help insure that operations are undertaken most effectively, the Federal Reserve has the new operating technique and related factors under continuous examination in light of experience gained. At present, studies are under way on such elements as lagged reserve accounting and the role of the discount window. Possible changes in other elements involved with the technique would require Congressional action--such as extending reserve requirements to nonmember institutions and certain aspects of simplifying reserve structure.

The principal steps in the new procedure are outlined below.

(1) The policy process first involves a decision by the Federal Open Market Committee on the rate of increase in money it wishes to achieve. For instance, at its October 6 meeting, taking account of its longer-run monetary targets and economic and financial conditions, the Committee agreed upon an annual rate of growth in M-1 over the 3-month period from September to December on the order of 4½ percent, and of M-2 of about 7½ percent, but also agreed that somewhat slower growth was acceptable.

(2) After the objective for money supply growth is set, reserve paths expected to achieve such growth are established for a family of reserve measures. These measures consist of total reserves, the monetary base (essentially total reserves of member banks plus currency in circulation), and nonborrowed reserves. Establishment of the paths involves projecting how much of the targeted money growth is likely to take the form of currency, of deposits at nonmember institutions, and of deposits at member institutions (taking account of differential reserve requirements by size of demand deposits and between the demand and time and savings deposit components of M-2).

Moreover, estimates are made of reserves likely to be absorbed by expansion in other bank liabilities subject to reserve requirements, such as large CD's, at a pace that appears consistent with money supply objectives and also takes account of tolerable changes in bank credit. Such estimates are necessary because reserves that banks use to support expansion of CD's, for example, would not be available to support expansion in M-1 and M-2. Thus, if the reserves required behind CD's were not provided for in the reserve path, expansion in M-1 and M-2 would be weaker than desired. The opposite would be the case if the reserve path were not reduced to reflect contraction of large CD's. For similar reasons, estimates are also made of the amount of excess reserves banks are likely to hold.

(3) The projected mix of currency and deposits, given the reserve requirements for deposits and banks' excess reserves, yields an estimate of the increase in total reserves and the monetary base consistent with FOMC monetary targets. The amount of nonborrowed reserves--that is total reserves less member bank borrowing--is obtained by initially assuming a level of borrowing near that prevailing in the most recent period. For instance, following the October 6 decision, a level of borrowing somewhat above that of September was initially assumed. Following subsequent meetings, the assumed level of borrowing for the nonborrowed path was always close to the level prevailing around the time of the FOMC meeting, though varying a little above and below that level.

(4) Initial paths established for the family of reserve measures over, say, a 3-month period are then translated into reserve levels covering shorter periods between meetings. These paths can be based on a constant seasonally adjusted rate of growth of the money targets on, say, a month-by-month basis, or can involve variable monthly growth rates within the 3-month period if that appears to facilitate achievement of the longer-run money targets.

(5) Total reserves provide the basis for deposits and thereby are more closely related to the aggregates than nonborrowed reserves. Thus total reserves represents the principal over-all reserve objective.[1/] However, only nonborrowed reserves are directly under control through open market operations, though they can be adjusted in response to changes in bank demand for reserves obtained through borrowing at the discount window.

(6) Because nonborrowed reserves are more closely under control of the System Account Manager for open market operations (though subject to a small range of error because of the behavior of non-controlled factors affecting reserves, such as float), he would initially aim at a nonborrowed reserve target (seasonally unadjusted for operating purposes) established for the operating period between meetings. To understand how this would lead to control of total reserves and money supply, suppose that the demand for money ran stronger than was being targeted--as it did in early October of last year. The increased demand for money and also for bank reserves to support the money would in the first instance be accompanied by more intensive efforts on the part of banks to obtain reserves in the federal funds market, thereby tending to bid up the federal funds rate, and by increased borrowing at the Federal Reserve discount window. As a result

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1/ In the control process, the monetary base in practice is given less weight than total reserves. This is principally for a technical reason. If currency, the principal component of the base, is running stronger than anticipated, achievement of a base target would require a dollar-for-dollar weakening in member bank reserves. But, because of fractional reserve requirements, the weakening in reserves would have a multiple effect on the deposit components of the monetary aggregates (it could weaken the demand deposit component by about 6 times the decline in reserves). Achievement of a base target in the short run could therefore lead, in this example, to a much weaker money supply than targeted. If a total reserve target were achieved, the money supply would be stronger than targeted, but only by the amount by which currency is stronger than expected. Thus, the variation from a money supply target would be less under total reserves than under a monetary base guide. Of course, should currency persistently run stronger or weaker than expected, compensating adjustments could be made to either a total reserves or monetary base target.

of the latter, total reserves and the monetary base would for a while run stronger than targeted. Whether total reserves tend to remain above target for any sustained period depends in part on the nature of the bulge in reserve demand--whether or not it was transitory, for example--and in part on the degree to which emerging market conditions reflect or induce adjustments on the part of banks and the public. These responses on the part of banks, for example, could include sales of securities to the public (thereby extinguishing deposits) and changes in lending policies.

(7) Should total reserves be showing sustained strength, closer control over them could be obtained by lowering the nonborrowed reserve path (to attempt to offset the expansion in member bank borrowing) and/or by raising the discount rate. A rise in the discount rate would, for any given supply of nonborrowed reserves, initially tend to raise market interest rates, thereby working to speed up the adjustment process of the public and banks and encouraging a more prompt move back to the path for total reserves and the monetary base. Thus, whether adjustments are made in the nonborrowed path--the only path that can be controlled directly through open market operations--and/or in the discount rate depends in part on emerging behavior by banks and the public. Under present circumstances, however, both the timing of market response to a rise in money and reserve demand, and the ability to control total reserves in the short run within close tolerance

limits, are influenced by the two-week lag between bank deposits and required reserves behind these deposits.[1/]

(8) Other intermeeting adjustments can be made to the reserve paths as a family. These may be needed when it becomes clear that the multiplier relationship between reserves and money has varied from expectations. The relationship can vary when, for example, excess reserves and non-money reservable liabilities are clearly running higher or lower than anticipated. Since October 6 such adjustments during the intermeeting period have been made infrequently. Given the naturally large week-to-week fluctuations in factors affecting the reserve multiplier, deviation from expectations in one direction over a period of several weeks would be needed before it would be clear that a change in trend has taken place.

A variable relationship between expansion of reserves and of money is implicit in the description of procedures just given. This is illustrated by experience in the fourth quarter, as shown in the table on the next page. It can be seen from panel I that M-1 increased at only a 3.1 percent annual rate (seasonally adjusted) in that period and M-2 at a 6.8 percent rate. At the same time, as shown in panel II, nonborrowed reserves, total reserve and the monetary base rose at substantially more rapid rates--by annual rates of about 13, 13¾, and 8 percent, respectively.

There were a number of reasons for the much more rapid growth in reserves and the base than in the monetary aggregates. Only about 1 percentage point of the 13¾ percent annual rate of increase in total reserves

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1/ Under lagged accounting, banks are not required to hold reserves against deposits until two weeks later. With required reserves fixed at that time, the Federal Reserve in its operations is limited in its ability to control total reserves within a given week (since the total of reserves is determined by required reserves and banks' excess reserves), but can more readily determine whether the banking system satisfies its reserve requirement through the availability of nonborrowed reserves, or is forced to turn to the discount window (or to reduce excess reserves, though most banks are usually close to minimal levels in that respect).

Changes in Reserve and Monetary Aggregates
September to December 1979
(Seasonally adjusted)

	Percent Annual Rate 1/	Change in Millions $
I. Changes in Monetary Aggregates:		
A. M-1	3.1	2845
1. Currency outside banks	5.3	1400
2. Member bank demand deposits	2.3	972
3. Nonmember bank demand deposits	2.1	473
B. M-2	6.8	15961
II. Changes in Reserves and Related Items:		1309
A. Nonborrowed reserves	12.9	
B. Borrowings	--	131
C. Total reserves (A + B)	13.8	1430
D. Currency 2/	5.9	1606
E. Monetary base (C + D)	8.1	3046

	Percentage Points Contributed Towards Growth of Total Reserves	Change in Millions $
III. Total Reserves Absorbed by:		
A. Private demand deposits	1.1	111
B. Interbank demand deposits	2.7	280
C. U.S. Government demand deposits	0.0	3
D. Large, negotiable CD's	3.6	378
E. M-2 time and savings deposits	4.5	466
F. Nondeposit items	0.0	-3
G. Excess reserves	2.0	205

Addendum:

Impact of lagged reserve accounting on:	Change in Millions $
1. Total reserves	287 3/
2. Reserves against private demand deposits	-64
3. Reserves against M-2 time and savings deposits	121
4. All other items subject to reserves	230

1/ Growth rates of reserves adjusted for discontinuities in series that result from changes in Regulations D and M.
2/ Includes vault cash of nonmember banks.
3/ Reflects change in total reserves during period attributable to fact that required reserves are based on deposits two weeks earlier, rather than on deposits contemporaneous with reserves. Thus, adjusted to a basis contemporaneous with deposit growth from September to December, total reserves would have expanded $287 million, or 2.8 percentage points, less than they actually did.

supported growth in the member bank demand deposit component of M-1 (as may be seen from line III.A of the table). An additional 4½ percentage points supported the member bank interest-bearing component of M-2 (line III.E). Thus less than half of the increase in reserves supported expansion in targeted monetary aggregates. More than half of the reserves supported expansion in interbank demand deposits, excess reserves, and large negotiable CD's. If these reserves had not been supplied, growth in M-1 and M-2 would have been much slower. In fact, actual growth in M-1 and M-2 was a bit slower than targeted, though not less than the Committee found acceptable.[1/]

As this example from recent experience helps demonstrate, the behavior of reserve measures in relation to money can be expected to vary with shifts in the currency and deposit mix, with changes in bank demands for excess reserves and borrowing, and with timing problems related to lagged reserve accounting. But even in evaluating money growth itself, which the Federal Open Market Committee sets as a target in the policy process, recognition has to be given to the likelihood that money growth can vary substantially on a month-to-month basis in view of inherently large and erratic money flows in so vast and complex an economy as ours.

1/ Moreover, the relatively rapid expansion in reserve measures was not associated with strength in bank credit, which in the fourth quarter grew at only about a 3 percent annual rate, well below its earlier pace. The slow expansion in bank credit during the fourth quarter reflected, on the liability side, a sharp reduction in the outstanding amount of borrowing by banks through Euro-dollars, federal funds, and repurchase agreements.

January 30, 1980