

BUSINESS REVIEW

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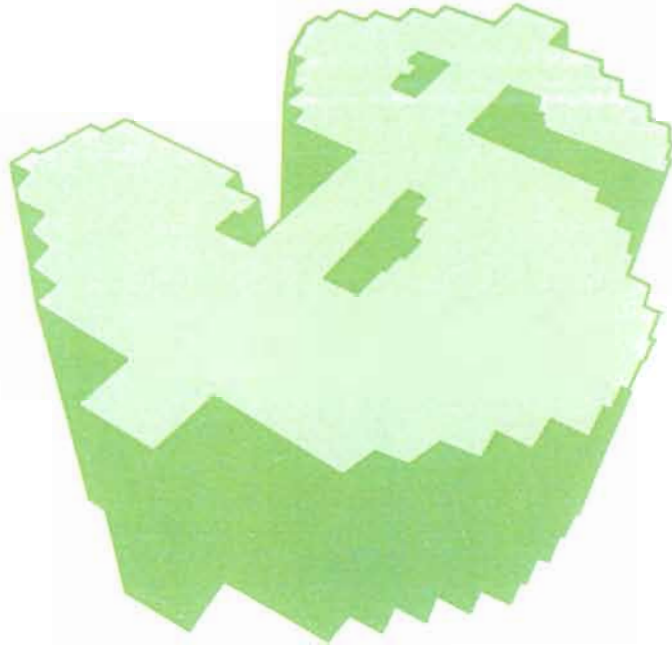
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FEDERAL RESERVE BANK
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Managing the Money Stock:
A Time of Transition



Regulating
the Eurocurrency Market:
What Are the Prospects?

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**MANAGING THE MONEY STOCK:
A TIME OF TRANSITION**

Richard W. Lang

. . . The Monetary Control Act requires adjustments by depository institutions, regulators, and the public.

**BUSINESS
REVIEW**

Federal Reserve Bank of Philadelphia
100 North Sixth Street
(on Independence Mall)
Philadelphia, Pennsylvania 19106

**REGULATING
THE EUROCURRENCY MARKET:
WHAT ARE THE PROSPECTS?**

Nicholas Carlozzi

. . . Increasing supervision appears to have a better chance than imposing reserve requirements.

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Managing the Money Stock: A Time of Transition

*By Richard W. Lang**

In March of 1980, Congress passed a law that already is changing the shape of the American financial industry. The Depository Institutions Deregulation and Monetary Control Act of 1980—Monetary Control Act or MCA for short—affects consumers and businesses by letting banks and other financial institutions compete more directly for deposits and loan customers. It also affects the nation's monetary policymakers by giving the Federal Reserve System more institutions and more reserve balances to keep track of.

In the past, the Federal Reserve dealt mainly with its own member banks. These banks received services from the Fed, such as check clearing and wire transfers of funds, without paying explicit unit prices for them. But these services were not cost-free to the

banks, since the banks had to keep reserve balances on account with the Fed—balances that earned no interest—based on their deposits. Thus member banks implicitly paid for Fed services by forgoing interest income on their reserves.

The Monetary Control Act requires the Fed to make its services available to all deposit-taking institutions, not just member commercial banks, on an explicit price schedule. It also requires all of these institutions to hold reserve balances based on their deposits. In the short term, these changes are likely to complicate the Fed's task of managing the money supply. The year 1981 will be a time of transition for the Federal Reserve and the U.S. financial system as they both become accustomed to the new financial environment brought about by the MCA. But in the longer run, the extension of reserve requirements to all depository institutions is intended to improve the Fed's control of the money supply.

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MANAGING MONEY

Prior to October 1979, the Federal Reserve attempted to manage money growth by monitoring and modifying movements in short-term interest rates, particularly the Federal funds rate (the rate banks charge on overnight loans to one another). Today, the Fed places less emphasis on interest rates and instead focuses primarily on controlling the growth of bank reserves, pretty much in agreement with the textbook formula that the money stock is a product of bank reserves times a factor called the money multiplier.¹ Simply put, the Fed now tries to achieve a desired rate of growth for the money stock by manipulating the growth of reserves.

Most depository institutions are required by regulation to hold reserves in amounts based on their deposits.² And some institutions may choose to hold more than the legally required reserves, even though these excess reserves earn no interest.

When an institution finds its excess reserves rising above desired levels, however,

it will move quickly to loan out more funds. Putting more loans on its books typically increases its deposits, since banks usually make loans by crediting funds to the accounts of their borrowers.

Increases in bank reserves thus lead banks to create more deposits. And since banks are required to hold reserves against only a small fraction of deposits, the financial system can support a large increase in deposits with a small addition to reserves. This expansion of deposits is what the money multiplier is supposed to gauge: it measures how much the money supply increases for each additional dollar of bank reserves.³

How big is the money multiplier and how does it change from one week to the next? That may not be so easy to figure, and the MCA initially may make it harder. The money multiplier depends on which definition of money is being used (the Fed uses four common ones) and on how people decide to hold their money. If money is defined most narrowly as currency plus checking accounts in the hands of the nonbank public (M1A), for example, a certain money multiplier will apply.⁴ If it is defined to include all other kinds of transaction ac-

¹With the implementation of the MCA, it is more appropriate to refer to reserves of the entire financial system than to reserves of banks only. An alternative framework that often is used in textbooks is to make the money stock equal to the product of a different money multiplier and the monetary base (reserves plus currency in circulation). Since the Federal Reserve's operating procedure focuses on reserves, not the monetary base, however, it is more convenient to talk in terms of reserves than of the base. A more extensive discussion of the money supply process can be found in most economics textbooks. See, for example, L.S. Ritter and W.L. Silber, *Principles of Money, Banking, and Financial Markets*, third edition (New York: Basic Books, 1980).

²Before the MCA, the Fed required member banks to hold reserves in the form of vault cash or deposits at Federal Reserve banks, and state banking authorities required banks under their supervision to hold certain reserve assets, usually defined more broadly than assets eligible to satisfy Federal Reserve requirements. Under the MCA, all kinds of depository institutions will be required to hold reserves according to Fed regulations, but financial institutions with assets less than \$2 million have been exempted initially.

³A more extensive discussion of these points can be found in most textbooks. See, for example, Ritter and Silber.

⁴M1A is defined as currency and commercial bank demand deposits (checking accounts) held by the nonbank public. M1B consists of M1A plus all other transactions accounts (such as ATS accounts and NOW accounts) at all depository institutions (such as credit unions, mutual savings banks, and savings and loan associations). M2 consists of M1B plus savings and small time deposits at all depository institutions, money market mutual fund shares, overnight Eurodollar deposits held by U.S. residents other than banks at Caribbean branches of U.S. banks, and overnight RPs (repurchase agreements) issued by commercial banks. M3 consists of M2 plus large time deposits at all depository institutions and term RPs at both commercial banks and savings and loan associations. For more information on the construction of the monetary aggregates, see "The Redefined Monetary Aggregates," *Federal Reserve Bulletin* (February 1980), pp. 97-114.

counts as well (M1B), a different money multiplier will be appropriate (Figure 1). If people decide to switch some of their funds from commercial bank checking accounts to savings accounts, the multipliers will change accordingly.

The Fed itself can affect the multiplier by changing the level of reserve requirements;

in fact, the MCA involved such a change.⁵ And finally, depository institutions can choose to keep their reserves right at the required level or somewhat above it, and that choice will be reflected in the multipliers. In sum, the behavior of the Fed, the public, and banks and thrift institutions all can affect the multiplier.

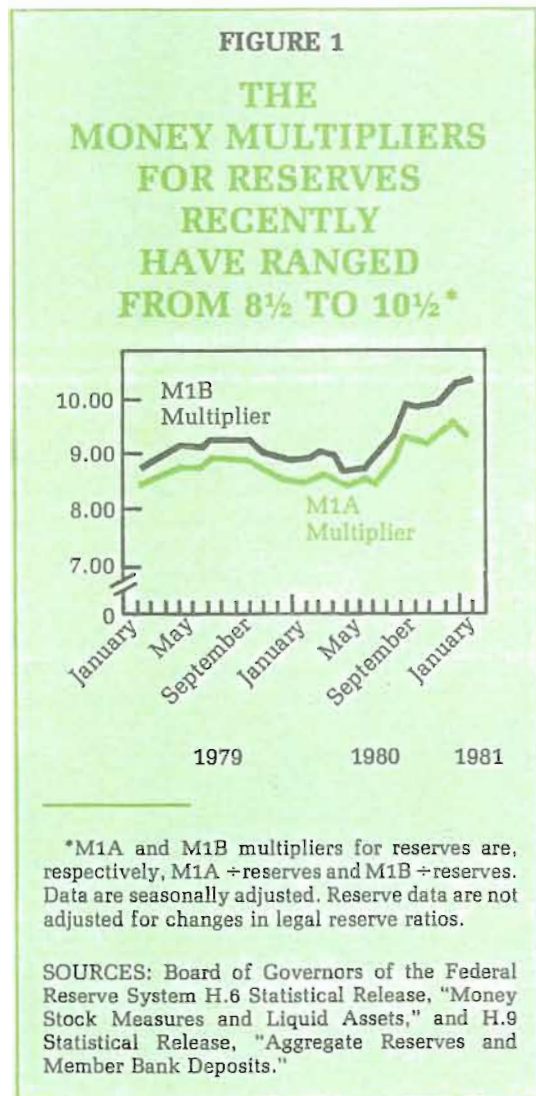
It used to be that only member commercial banks had their reserves measured directly as part of the process of managing money growth. But the MCA brings nonmember banks and thrift institutions directly into the process, by extending reserve requirements to all depository institutions—such as mutual savings banks, savings and loan associations, and credit unions (see APPENDIX).

How does the Fed change the overall level of reserves in the system? In most instances, by buying or selling government securities in the open market. When the Fed buys government securities from a bank, for example, it pays for them by crediting the bank's reserve account, thus increasing its reserves and its ability to make loans. Fed sales of securities decrease reserves, since the Fed debits the reserve account of the seller. These open market operations are the source of the Fed's provision of nonborrowed reserves. Reserves can also be increased when banks borrow directly from the Fed.

To make its money management work under the MCA, the Fed has to decide which definition of reserves will yield the best monetary control as well as gauge the effects of the MCA on the money multipliers.

WHAT COUNTS AS A RESERVE?

Before the MCA, when only member banks



⁵Some data series on reserves are adjusted for changes in legal reserve ratios in order to avoid breaks in the historical data series. Multipliers calculated from such adjusted reserve measures do not show a break when the MCA took effect in November 1980. The reserve and multiplier series discussed in the text are not adjusted for changes in legal reserve ratios.

had reserve requirements, actual reserves were fairly easy to define and to count. But with the spread of reserve requirements, the Fed has had to ask anew just what to count as a reserve for monetary policy purposes.

Updating the Definition. Member banks hold reserves in two forms—as credits in their accounts with the Fed and as cash in their own vaults. In the past, member banks' deposits at the Fed and their vault cash were counted in total reserves—the relevant figure for policy purposes. But member bank holdings of vault cash typically are small relative to the deposits against which they have to hold reserves, especially in comparison to vault cash holdings at thrifts.

Many nonmember commercial banks and thrift institutions have more vault cash than they need to meet reserve requirements, particularly now, since their reserve requirements are being phased in over an eight-year period and still are quite low. Since including this surplus vault cash at nonmember institutions in the reserve figure would introduce a conceptual discontinuity with the Fed's past definition of excess reserves, the Fed has been focusing on a measure of reserves that excludes surplus vault cash (Figure 2). "Reserve balances plus vault cash used to satisfy reserve requirements" does not include "surplus vault cash at other nonmember institutions" but is thought to be "most consistent with the total reserve concept published historically."⁶

More than one measure of reserves is being watched by policymakers. Among them is a measure that includes surplus vault cash. But for the present, at least, the Fed is focusing on reserve balances at the Fed and required vault cash at financial institutions for purposes of monetary control.⁷

⁶See the special explanatory note accompanying the Federal Reserve's H.4.1 Statistical Release dated November 21, 1980.

⁷Under the MCA, a nonmember depository institu-

Keeping Track of Reserves. Once reserves are defined, they still have to be measured each week in order for the Fed to control money growth under its reserve targeting procedure. Under a system called lagged reserve accounting, the Fed knows in advance the amount of reserves banks are required to hold in the current week because their current requirements are based on their deposits of two weeks earlier. Because depository financial institutions must file weekly reports of their deposits at the end of each week, the Fed can calculate the reserves they must hold in the next week to meet their reserve requirements.

Since total reserves consist of required and excess reserves, and since excess reserves are small relative to required reserves, the Fed knows in advance a large portion of the reserves banks desire to have each week. The Fed then has to determine what level of reserves it will supply and in what form—either through open market operations or through the discount window.

When reserve requirements for nonmembers became effective in early November of last year, however, there was some uncertainty about how much in the way of transactions accounts at banks and thrifts would be subject to reserve requirements, even with the lagged reserve accounting system. The weekly reports of deposits should have provided the Fed with information on the amount of reservable deposits in advance of the week in which MCA reserve requirements had to be held—the week of November 13, 1980. Initially, however, the Fed found it difficult to obtain accurate reports on a timely basis from both member

tion is permitted to satisfy reserve requirements by a pass-through account with another institution which does hold reserves on deposit with a Reserve Bank. The first institution holds funds at the second institution, which holds reserves for both of them at the Fed. Ultimately, the reserve requirements of both institutions are met by a combination of vault cash and a deposit with the Fed.

FIGURE 2



FEDERAL RESERVE

Factors Affecting Reserves of Depository Institutions and
Condition Statement of F.R. Banks

H.4.1

For immediate release

January 16, 1981

Reserves of depository institutions Reserve Bank credit, and related items	Averages of daily figures			Wednesday, January 14, 1981*
	Week ended January 14, 1981*	Change from week ended January 7, 1981	January 16, 1980	
Reserve Bank credit:	(In millions of dollars)			
U.S. Government securities--				
Bought outright--System account	^{1/} 120,563	+1,404	+ 1,890	^{2/} 121,571
Held under repurchase agreements	--	-2,310	--	--
Federal Agency obligations--				
Bought outright	8,739	--	+ 523	8,739
Held under repurchase agreements	--	- 311	--	--
Acceptances--				
Bought outright	--	--	--	--
Other F.R. liabilities and capital	6,971 143,896	+ 62 -1,374	-- 35 +11,200	4,891 142,827
Reserve balances with F.R. Banks ^{3/}	26,784	- 934	- 6,013	29,807
Total vault cash (estimated)	20,390	+2,569	N/A	20,390
a) Vault cash at institutions with required reserve balances	14,268	+1,770	+ 1,522	14,268
b) Vault cash equal to required reserves at other institutions	700	--	N/A	700
c) Surplus vault cash at other institutions ^{4/}	5,422	+ 779	N/A	5,422
Reserve balances + total vault cash ^{5/}	47,287	+1,606	N/A	50,310
Reserve balances + total vault cash used to satisfy reserve requirements ^{5/6/}	41,865	+ 827	- 4,349	44,608
Required reserves (estimated)	41,240	+ 866	- 4,791	41,240
Excess reserve balances at F.R. Banks ^{5/7/}	625	- 39	+ 242	3,648

On January 14, 1981, marketable U.S. Government securities held in custody by the Federal Reserve Banks for foreign official and international accounts were \$92,983 million, an increase of \$112 million for the week.

- ^{3/} Adjusted to include \$113 million waivers of penalties for reserve deficiencies in accordance with Board policy effective November 19, 1975.
- ^{6/} Reserve balances with Federal Reserve Banks plus vault cash at institutions with required reserve balances plus vault cash equal to required reserves at other institutions.
- ^{7/} Reserve balances with Federal Reserve Banks plus vault cash used to satisfy reserve requirements less required reserves. (This measure of excess reserves is comparable to the old excess reserve concept published historically.)
- Vault cash and required reserves are partially estimated.
- * Estimated (San Francisco District).
- ** Estimated (Treasury's Figures).

and nonmember institutions. Nonmembers weren't familiar with the Fed's reporting system, and member banks were faced with more complicated reporting requirements than they had had before. Furthermore, the near tripling in the number of reporting institutions resulted in processing delays at the district Federal Reserve Banks and the Board of Governors.

These kinds of difficulties are only transitional, however, and have been largely alleviated. As weekly reserve accounting becomes more familiar to nonmembers, and as member banks become accustomed to the new reporting forms, there will be less difficulty in calculating the changes in required reserves at each of the subsequent steps of the phase-in of the new reserve requirements.

But even when the definitions of reserves and the procedures for reporting them have become well established, the Fed still will have to forecast how much money a given level of reserves will generate. That is, it will have to calculate—either explicitly or implicitly—values of the money multiplier.

HOW MUCH MONEY FROM RESERVES?

The Fed's Open Market Committee meets regularly to set target rates for money growth over, say, a three-month period. There are several target rates, one for each of the several definitions of money. The Board of Governors' staff then estimates a growth path for total reserves in the financial system. They also determine a path for nonborrowed reserves by subtracting out the FOMC's estimate of the reserves institutions will borrow from the discount window. In the course of this exercise, the Board staff implicitly estimates money multipliers (one for each definition of money).⁸ Under the MCA, the

⁸This is done by separately estimating public holdings of various types of deposits and bank holdings of required and excess reserves. For more details, see "The New Federal Reserve Technical Procedures for Controlling Money," Appendix B of the Board of Governors'

levels of the multipliers could change, and so could their tendency to vary from week to week and month to month.

Phasing in Reserve Requirements. The link between reserves and money is affected by changes in reserve requirements, so that the changes in legal reserve ratios for member and nonmember financial institutions at each step of the phase-in will result in changes in the money multiplier. For example, the increase in required reserves for nonmembers was smaller (up about \$1.4 billion) than the decrease in required reserves for members (down about \$4.1 billion) at the first step of the phase-in, so the money multiplier tended to increase.⁹

As long as changes in total required reserves at each step of the phase-in to the new reserve requirements are known with reasonable precision, changes in the multiplier can be offset by changing reserves in the opposite direction via open market operations. Since the Fed will have fairly accurate information about reserve positions at both member and nonmember institutions, the phase-in of reserve requirements is not likely to result in significant uncertainties for monetary control.

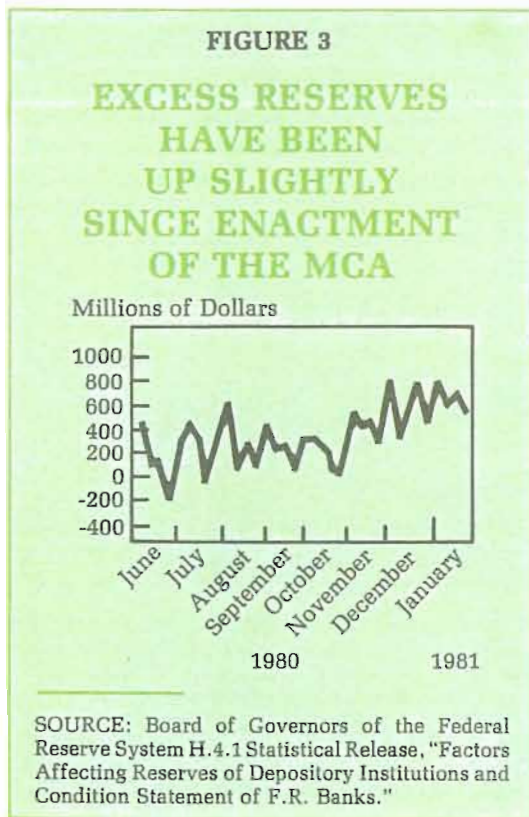
Excess Reserves and Vault Cash. Holdings of excess reserves or vault cash also could be affected by the extension of reserve requirements to nonmembers. An increase in holdings of excess reserves or vault cash over what financial institutions held prior to enactment of the MCA would tend to lower the money multipliers. The reason is that institutions would be using less of their reserves or cash to make loans which generate additional deposits, so that the same level of

"Monetary Policy Report to Congress Pursuant to the Full Employment and Balanced Growth Act of 1978," February 19, 1980.

⁹Some data series on reserves are adjusted for changes in legal reserve ratios in order to avoid breaks in the historical data series. At present we are referring to reserve data which are not so adjusted.

reserves would be supporting a smaller level of deposits and money.

If the Federal Reserve were not using a new definition of excess reserves which excludes surplus vault cash at nonmember depository institutions (Figure 2, note 7), excess reserves would have increased after the introduction of the MCA reserve requirements to over \$6 billion from pre-MCA levels, which were typically less than \$500 million. The new, more narrowly defined measure of excess reserves has averaged less than \$1 billion (Figure 3). Although the Fed does receive weekly data from nonmembers, the majority of excess reserves could be estimated using only member banks' excess reserves, as has been the case in the past.



Since most of the increase in excess reserves relative to pre-MCA experience has been at members, excess reserves are likely to fall over time to pre-MCA levels. Whether they will be less predictable week to week remains to be seen.

Discount Window Borrowing. Another effect on the link between reserve and money growth could result from the extension of reserve requirements and Fed services to nonmember institutions. Since the MCA has opened the discount window to nonmember depository institutions, the FOMC will have to determine whether this new borrowing privilege will materially affect its assumption or estimate about the level of borrowing that is consistent with its short-run monetary growth path. The initial nonborrowed reserve path is based on the FOMC's assumption about or estimate of borrowings. Nonmember borrowing at the discount window will have to be taken into account in setting a nonborrowed reserve path that is consistent with desired money growth.

In the past, deviations from the total reserve path have occurred even though the Fed was on its nonborrowed reserve path because borrowings were larger or smaller than expected. Sometimes such deviations help the Fed attain its objectives for money growth, but sometimes they tend to hinder it. Furthermore, an increased variability of borrowings by nonmembers from the Fed would impart increased variability to the link between the nonborrowed reserve path and the money stock.

So far in 1981, nonmember borrowing at the discount window has been limited. So long as it remains low, nonmember borrowing will not have a significant impact on the link between reserves and money.

Nationwide NOW Accounts. The public's holdings of various types of deposits will be altered in 1981 because of the MCA's introduction of nationwide NOW accounts (negotiable orders of withdrawal). Although NOW accounts previously have been available in

eight states—the New England states, New York, and New Jersey—they were first offered in the rest of the nation beginning in January 1981. In the forty-two states in which they are being offered for the first time, individuals can be expected to shift funds into NOW accounts from both checking and savings accounts. As the mix of deposits held by individuals changes, the relation of reserves to money growth may change. The nature of the effect on money growth (with an unchanged growth of reserves) will depend on the particular monetary aggregate being considered.

For example, consider the aggregate M1A, which basically consists of currency plus demand deposits at commercial banks. The introduction of nationwide NOW accounts is expected to induce people to shift funds out of demand deposits and into NOW accounts. Even with reserves unchanged, people will want to hold fewer demand deposits relative to other deposits. Hence, M1A would be reduced. Put another way, the money multiplier for M1A would decline.

Now consider M1B, which consists of currency and demand deposits plus NOW accounts and other transactions-type deposits. A shift of funds out of demand deposits and into NOW accounts has no initial effect on M1B since both types of deposits are included in it. But if NOW accounts have lower reserve requirements than demand deposits, then banks would have more funds to lend out, and bank credit and deposits would expand. All types of deposits would increase in this case, including those in M1B. Consequently, under these assumptions, M1B would increase somewhat even if reserves were unchanged. Put another way, the M1B money multiplier would rise.

Of course, if the funds that are shifted into NOW accounts come from savings accounts, which are not included in M1B, then M1B would increase even if reserve requirements on the two types of accounts were the same. Even with total reserves unchanged, the

M1B measure of money would increase; the M1B money multiplier would rise.

The changes in the M1A and M1B money multipliers as nationwide NOWs are introduced will depend on a number of factors, including how successfully thrifts compete transactions accounts away from banks and whether these accounts are drawn mainly from member or nonmember banks. The introduction of NOW accounts is likely to result in effects on the monetary aggregates similar to those that occurred when ATS (automatic transfer service) accounts were introduced in November 1978—a fall in the M1A multiplier and a slight rise in the M1B multiplier.¹⁰ The magnitudes of the changes, however, are more uncertain than they were when ATS accounts were introduced. The reason is that the structure of reserve requirements under the MCA's phase-in is more complicated than the structure that existed when ATS accounts were introduced in 1978, which makes it more difficult to estimate the effects on the money multipliers.

The uncertainty in estimating the link between reserves and money growth which results from the introduction of NOW accounts, however, is only transitional. Once individuals have completed changing the composition of their deposit holdings among demand, NOW, and time or savings deposits, the relation of reserves to money (M1A or M1B) should be no less predictable than it was before the MCA was enacted.

SUMMARY

The Monetary Control Act of 1980 was

¹⁰For a more extensive discussion of the effect of the introduction of ATS accounts on the money multiplier, see Scott Winningham, "Automatic Transfers and Monetary Policy," Federal Reserve Bank of Kansas City *Economic Review* (November 1978), pp. 18-27; and John A. Tatom and Richard W. Lang, "Automatic Transfers and the Money Supply Process," Federal Reserve Bank of St. Louis *Review* (February 1979), pp. 2-10.

intended to improve the ability of the Federal Reserve to control the money stock by changing the schedule of reserve requirements and by extending reserve requirements to all transactions accounts regardless of where they were held. Nonmember banks, mutual savings banks, savings and loans, and credit unions as well as member banks now must hold reserves.

Although the MCA ultimately will provide the type of control that Congress intended to give to the Federal Reserve System, there are some transition difficulties in going from the old system to the new. For one, there is the relatively simple matter of changing the definition of reserves. For another, the Fed's current procedure for implementing monetary policy—the reserve targeting procedure—will be subject to greater uncertainties during this transition period. These uncertainties arise from adjustments in the behavior of both the public and financial

institutions. The public's behavior with respect to deposit holdings will be changing in response to the introduction of nationwide NOW accounts. Thrift institutions' holdings of excess reserves and vault cash and their pattern of borrowing from the discount window also may be changing over time. Until more data are available on which to base estimates of thrifts' short-run behavior, the Fed's total reserve and nonborrowed reserve paths could be subject to greater errors than in the past, when only member banks were subject to reserve requirements.

The provisions of the MCA have not made the Fed's reserve targeting procedure unworkable during this transition period. But there is little doubt that the Fed will have to monitor changes in reserve behavior and changes in monetary growth quite closely in the coming year in order to maintain continuity in its monetary policy objectives.

APPENDIX . . .

THE NEW RESERVE

The Monetary Control Act places reserve requirements on all types of transactions accounts as well as on nonpersonal time deposits with maturities of less than four years. Transactions accounts are defined to include demand deposits, NOW accounts, ATS accounts, share draft accounts, and accounts subject to telephone or pre-authorized transfer when the depositor is authorized to make more than three transfers per statement period. Nonpersonal time deposits are defined as time deposits or accounts that are transferable or are held by a party other than a natural person. The MCA reserve requirements apply to all depository financial institutions—including commercial banks, savings and loan associations, credit unions, industrial banks, U.S. agencies and branches of foreign banks, and Edge Act and Agreement corporations. The following two tables show the reserve requirements that will apply after the MCA is fully phased in and the old reserve requirements which applied to member banks before November 13, 1980.

The Phase-In

The provisions of the Monetary Control Act call for the new reserve requirements to be phased in gradually—over a four-year period for member banks and an eight-year period for nonmember depository institutions. Only NOW accounts will be subject immediately to the full reserve requirement on transactions accounts—with the exception of the NOW accounts previously

The Old Reserve Requirements for Member Banks

Category of Deposit	Reserve Ratio
Net Demand Deposits	
\$0-2 million	7%
\$2-10 million	9.5%
\$10-100 million	11.75%
\$100-400 million	12.75%
Over \$400 million	16.25%
Savings Deposits	3%
Time Deposits	
\$0-5 million, by maturity	
30-179 days	3%
180 days to 4 years	2.5%
4 years or more	1%
Over \$5 million, by maturity	
30-179 days	6%
180 days to 4 years	2.5%
4 years or more	1%

E REQUIREMENTS

authorized in New England, New York, and New Jersey.

During the ten-month period beginning in November 1980, the amount of required reserves for nonmember institutions is one-eighth of the full requirement. The amount will increase by one-eighth in September of 1981 and each September of the following six years.

Reserve requirements for member banks on transactions accounts and time and savings deposits were phased down by one-fourth of the difference between the amount under the old and new reserve requirement structures on November 13, 1980. They will be reduced by an additional one-eighth in September 1981 and by a further one-eighth at six-month intervals thereafter. To reduce the phase-in calculations for member banks, reserve requirements on time deposits under the old structure are determined by applying the average reserve ratio on time deposits at each bank for the two-week period ending August 6, 1980 to the total amount of time deposits. This fixed average reserve ratio on time deposits will be used throughout the members' phase-in period.

Nonmember depository institutions with less than \$2 million in total deposits will not have to hold required reserves until at least May 1981. In addition, all depository institutions with total deposits of between \$2 million and \$15 million have to report only on a quarterly basis rather than weekly.

Newly chartered banks and banks that become members of the Federal Reserve System after March 31, 1980 will have a two-year phase-in period.

The MCA's Reserve Requirements

Category of Deposit	Reserve Ratio
Transactions Accounts	
First \$25 million*	3%
Amounts greater than \$25 million*	12%
Nonpersonal Time Deposits	
Maturities less than 4 years	3%
Maturities of 4 years or more	0
Personal Time Deposits	
Nontransferable	(no reserve requirement)
Transferable	(see Nonpersonal)
Eurocurrency Liabilities	3%

*The base figure of \$25 million will be adjusted annually beginning in 1982 based on the changes in transactions accounts during the previous year.

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The Men Who Made the Fed



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