

Research Department
Federal Reserve
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April 1, 1983

Is M1 Ruined?—Part II

The recent removal of interest rate ceilings on checkable deposits raises important questions about the Federal Reserve's method of conducting monetary policy. This deposit-rate deregulation was accomplished in December 1982 and January 1983 when Federal regulators authorized banks and thrift institutions to issue Money Market Deposit Accounts (MMDAs), which can be held by businesses, households and other depositors, and Super-NOW accounts, which businesses are not permitted to hold. Both types of accounts are free of interest rate ceilings and offer checking privileges. Super-NOWs have unlimited checking privileges and are therefore counted in the monetary aggregate called M1. Historically this aggregate has been the principle money stock measure used by the Fed as a guide for monetary policy. It attempts to measure funds readily available to the public for spending. MMDAs are excluded from M1 because they offer only limited withdrawal—six non-personal transfers per month, three of which may be checks. MMDAs are included in a broader aggregate called M2.

The previous *Letter* described some potential problems caused by deposit-rate deregulation for the usefulness of M1 as a guide for monetary policy. It addressed the issues of whether M1 will continue to be a leading indicator of economic activity, and whether serious monetary control problems will develop. It showed that there is a good chance that these problems will not be serious.

In this *Letter*, we address another potential problem. Some observers fear that by raising yields on checkable deposits, deregulation could attract a substantial volume of households' savings (i.e., non-transactions) balances into M1 and thereby change its unique transactions character and reduce its reliability for policy. The discussion below argues that any change in M1's character depends on how attractively depository

institutions price Super-NOWs versus MMDAs. The available evidence is not conclusive, but suggests an optimistic conclusion: M1 is likely to retain its transactions character and continue to be the most reliable policy guide available to the Fed.

Potential problem

Since the mid-1970s, the Fed has announced annual target ranges for several monetary aggregates even though it has focused its attention most often on M1. This choice of M1-targeting is based on the relatively close link between the quantity of money the public chooses to hold in its portfolio of financial assets and GNP, prices and interest rates. This link, established through what economists call the public's demand for money, allows the Fed to forecast the effects of its policies on the economy, and thus makes M1 a potentially useful intermediate target for monetary policy.

Deposit-rate deregulation could cause problems for M1-targeting because higher yields on M1 may induce the public to use it as a savings vehicle to a significant degree. If this should happen, it would alter M1's unique transactions character and its direct connection to income and prices. This does not mean that M1 will cease to function as the medium of exchange. It means instead that the public may commingle in M1 the funds it holds for making transactions with funds it holds for investment purposes. This has not occurred to a significant degree in the past because of interest rate ceilings on M1 assets. Most non-transactions funds were invested in financial assets that paid much higher rates of return than those in M1. But with M1 paying market returns, investors might find it advantageous to move some investment funds into "transaction" accounts.

If this were to occur, M1 would become a closer substitute for non-checkable financial assets in the past. The public's demand to

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hold M1 might become more highly responsive to changes in the "normal" spreads between M1's own rate of return and rates paid on a wide range of financial instruments not included in M1. The demand for M1 might become more sensitive to changes in yields on long-term bonds and common stocks. And shifts in investors' preferences for various maturities and liquidity characteristics also would have larger effects on M1 demand, as would changes in precautionary motives over the business cycle.

In general, since M1 would become more like the various financial assets held for investment purposes, changes in M1 could be dominated at various times by shifts in the composition of the public's portfolio, and only incidentally by changes in income and prices.

An empirical issue

The extent to which savings and transactions balances are mixed together in M1 depends critically on the spread between yields on M1 versus other liquid assets. In other words this is an *empirical issue* depending on yields banks pay on Super-NOWs (transactions accounts included in M1) versus those on MMDAs (primarily savings-type deposit not in M1). To the extent that Super-NOWs are priced attractively compared to MMDAs, M1 will be contaminated as a measure of transactions balances. The opposite pricing strategy would tend to preserve its transactions character.

There are two reasons that yields on Super-NOWs can be expected to be lower than those on MMDAs and other liquid assets. First, the Fed requires that depository institutions (excluding very small ones) hold 12 percent of funds obtained through Super-NOWs in the form of non-interest earning reserves, while MMDAs have a reserve requirement of three percent if they are non-personal accounts. (Personal MMDAs have no reserve requirements.) Thus, institutions will pay lower yields on Super-NOWs to compensate for the loss in earnings on the

reserves that must be held against them. Second, depository institutions may choose to charge for some of the expenses they incur in servicing high-turnover Super-NOWs by reducing their yields below those on MMDAs. The evidence thus far confirms these expectations. As of the end of February, yields on MMDAs averaged about 8¼ percent at commercial banks while Super-NOWs averaged about 7¼ percent.

Corporate deposits

Although it is relatively certain that Super-NOWs will continue to yield lower returns than non-transactions liquid assets it is still too early to ascertain whether this spread will be large enough to separate transactions from savings balances for households. However, the behavior of corporate transactions balances in the 1970s suggests that such a separation is possible.

At least since the mid-1970s, large corporations have earned implicit rates of return on their non-interest-bearing checking account balances. Implicit returns are paid through an arrangement whereby the checking account balances that corporations wish to hold are counted as payment for cash management and credit services provided by the bank to the corporate customer. Thus, each dollar held in the checking account is multiplied by the implicit rate of return to be paid on the account, and the result of this calculation is counted as payment for services. Services not paid for by these deposits can be paid for through explicit fees. In this way, the legal prohibition on the payment of interest on corporate checking account balances is effectively circumvented.

These arrangements mean that the behavior of banks and their large corporate customers since the mid-1970s provides insight into the world under deregulated yields on transaction deposits. Interviews with corporate treasurers and bankers suggest that (implicit) returns on checking account balances generally have been set at some open market rate (for example, the three-month Treasury

bill rate) minus the cost to the bank of reserve requirements, and have usually been adjusted according to market rates on a monthly or quarterly basis. These corporations, then, appear to have earned roughly the competitive rate of return on demand deposit balances that they would have earned under deregulated deposit rates.

The evidence suggests that these competitive yield spreads between deposits and liquid assets were large enough to induce most of the corporations to minimize their checking account balances for a given volume of transactions. Liquid funds in excess of this transactions demand are put into higher yielding savings-type instruments. In this way, the transactions and investment funds are effectively separated.

Whether this evidence may be applied to households is the crucial question. Such a competitive yield spread almost certainly will be sufficient to separate the funds of the more financially sophisticated households. However, it may be argued that some households will not find it beneficial to engage in the "high-powered" cash management activities that corporations, with their professional staffs and large balances, find profitable. If this is the case, then a yield spread such as the one faced by corporations may not induce households to separate their transactions and savings balances. Instead, households may reduce the time and cost of managing their money by "lumping" their transactions and savings balances together in a Super-NOW.

However, it is also possible that with Super-NOWs and MMDAs in the same depository institutions, these institutions will offer cash management services to households at fairly low cost. The MMDA, with its six non-personal transfers per month, would seem to be an efficient cash management device. Savings balances could be kept in the MMDA and transferred to the Super-NOWs as they are needed for transactions purposes. Thus, financially less sophisticated

households may be able to rely on the expertise of their depository institutions to help them keep their asset and transactions demands separate.

Optimism

There appears to be room for optimism that deposit-rate deregulation will not contaminate the transactions character of M1. However, it is not possible to draw firm conclusions until we see how the public responds to the availability of Super-NOWs and MMDAs. The most favorable set of developments for M1 targeting would be for MMDAs to be significantly more popular than Super-NOWs. This would tend to be indicated if large quantities of savings balances were to flow into MMDAs (which are not in M1), rather than Super-NOWs (which are in M1). Indeed, the evidence thus far confirms this scenario. MMDAs have been extremely popular, having grown to about \$300 billion by mid-March 1983. Super-NOWs, on the other hand, rose to only about \$25 billion by the same date.

Further supporting evidence comes from this Bank's money market model, which predicts M1 on the basis of market interest rates, income, prices and changes in bank loans. These underlying factors predicted an annual M1 growth rate of 13 percent in January and February 1983 based on historical patterns, without taking account of recent deregulation. If there were large inflows of savings-type funds into the Super-NOWs, M1 could be expected to grow much faster than the model's predictions. In fact, M1 grew at a 16-percent rate in January-February 1983, only 3 percentage points faster than the growth explained by factors other than deregulation. Thus, the evidence to date provides no basis for the conclusion that M1 has yet been significantly contaminated with savings-type funds. If the public's initial reaction to Super-NOWs and MMDAs continues, M1 is likely to retain its transactions character, and its usefulness for monetary policy.

John P. Judd

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT
(Dollar amounts in millions)

Selected Assets and Liabilities	Amount Outstanding 3/16/83	Change from 3/9/83	Change from year ago	
			Dollar	Percent
Large Commercial Banks				
Loans (gross, adjusted) and investments*	163,788	- 225	5,504	3.5
Loans (gross, adjusted) — total#	142,708	220	5,764	4.2
Commercial and industrial	45,509	460	3,452	8.2
Real estate	57,245	- 114	379	0.7
Loans to individuals	23,417	11	191	0.8
Securities loans	2,588	- 313	513	24.7
U.S. Treasury securities*	8,074	45	1,843	29.6
Other securities*	13,005	- 491	- 2,103	- 13.9
Demand deposits — total#	40,831	1,411	1,841	4.7
Demand deposits — adjusted	27,560	- 612	354	1.3
Savings deposits — total	65,002	376	34,252	111.4
Time deposits — total#	68,490	- 937	- 23,200	- 25.3
Individuals, part. & corp.	60,750	- 748	- 21,433	- 26.1
(Large negotiable CD's)	21,720	- 706	- 13,143	- 37.7
Weekly Averages of Daily Figures	Week ended 3/16/83	Week ended 3/9/83	Comparable year-ago period	
Member Bank Reserve Position				
Excess Reserves (+)/Deficiency (-)	47	80	35	
Borrowings	43	0	107	
Net free reserves (+)/Net borrowed(-)	4	80	- 73	

* Excludes trading account securities.

Includes items not shown separately.

Editorial comments may be addressed to the editor (Gregory Tong) or to the author . . . Free copies of this and other Federal Reserve publications can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.