
FRBSF WEEKLY LETTER

November 15, 1985

Examining the Recent Surge in M1

In recent months, many market analysts have questioned whether monetary policy is once again on an inflationary course. This concern has arisen in light of the recent rapid growth in the M1 monetary aggregate (currency plus all checkable deposits). Against a background of generally declining interest rates, M1 grew at an 11 percent annual rate from September 1984 to September 1985. This relatively high average rate of growth, however, masks two distinct episodes: M1 grew at a 7½ percent annual rate from September 1984 to April 1985, but then, in the five succeeding months ending in September, it grew at a substantially higher 16 percent annual rate. Naturally, this latter surge has attracted considerable attention, and led many observers to ask whether it is a sign of an overly expansionary monetary policy.

By some measures, it is not obvious that monetary policy has eased significantly since April. The Fed did reduce the discount rate by half a percentage point in May, but the resulting decline in the federal funds rate — which is often taken as an important indicator of the stance of monetary policy — by itself does not appear sufficient to explain the large increase in the M1 growth rate.

Several other explanations for the rapid growth in M1 have been offered. For example, some analysts have pointed to the recent problems at savings and loan associations and savings banks to argue that increased financial uncertainty has led to an increase in the public's holdings of liquid assets, such as demand deposits, that are part of M1. However, this and other explanations do not seem capable of accounting for all the growth in M1, especially from April onwards. In this *Letter*, we present evidence for a somewhat different explanation of the surge in M1.

We believe part of the explanation can be seen in the movements of the broader monetary aggregates. While M1 growth has picked up since April, the growth rate of M3 (which includes M1 plus MMDAs, money market funds, savings and time deposits, RPs and Eurodollar deposits) has actually slowed. In fact, the term components of M3, i.e.,

components that are not available on demand but that are investments that lock in funds for a fixed term to maturity — such as small and large CDs, term repurchase agreements (RPs), and term Eurodollar deposits — declined from May to August.

The behavior of these components resulted in part from sluggish growth in the demand for bank loans. In response, banks lowered the rates they offered on CDs and other term accounts. They changed the rates on Super NOWs and MMDAs much more slowly and kept the rates on NOW accounts at their regulatory maximum. The disparity in rate adjustments made it more attractive than before to hold funds in M1 and the nonterm component of M3 such as Super NOWs, NOWs, and MMDAs. The rapid growth in M1 relative to M3 thus appears to be a portfolio shift by the public out of term accounts into, among other things, M1 balances. This explanation of the recent rapid M1 growth implies that the surge does not indicate stimulative monetary policy. By the same token, if the portfolio shift should reverse itself in subsequent months, M1 growth could slow markedly (as it seems to have done through mid-October), but the slowdown would not indicate that monetary policy had turned restrictive.

The recent behavior of the monetary aggregates

While M1 growth accelerated after April, M3 growth actually slowed. M3 grew at a 9.4 percent rate from September 1984 to April 1985, but at only a 7.8 percent annual rate from May to August 1985. This deceleration was due mainly to the behavior of those components in M3 that are not in M1 or M2 (large CDs, term Eurodollars and term RPs). The level of these components was actually lower in August than in April, having *declined* at nearly a 3½ percent annual rate over the period.

The divergent growth patterns of the monetary aggregates are illustrated in Chart 1, which shows the monthly growth rates of M1 and those components of M3 that are not in M2 (M2 consists of M1 plus MMDAs, savings and small time deposits, non-institutional money market funds, and overnight

FRBSF

RP and Eurodollars). Over the past year, the two growth rates have generally tended to move in opposite directions.

The major difference between the two aggregates shown in the chart is that the components of M3 minus M2 are generally term accounts, while none of the components of M1 has a term element. This suggests it may be useful to examine the components of M3 by splitting M3 into purely term and nonterm components. The term components of M3 consist of large and small time deposits, term RPs and term Eurodollars, while all other deposits are included in the nonterm component — this contains M1 (currency, demand deposits, other checkable deposits), savings accounts, MMDAs, etc. The dollar values of these two aggregates are shown in Chart 2. The divergence in their recent behavior is striking. The term component actually declined from June to August, while the nonterm component accelerated. In September, the term component picked up, but it is still below its June 1985 level.

An explanation for the portfolio shift

To understand the causes of this divergence in the components of M3, it is useful to begin by examining the banking sector. Chart 3 shows the rate of bank loan growth since September 1984. Notice that loan growth slowed in December 1984, fell sharply in January 1985, then picked up, but has been slowing again since May. This slowdown in loan growth is due to a reduction in loan *demand* rather than loan *supply*. The fall in the prime rate from 13 percent in August 1984 to 9½ percent in August 1985 supports this view. Bankers react to a slowdown in loan demand by reducing the rates they offer on their term deposits as their need for funds falls. Consequently, during the recent period of low loan demand, CD rates have declined relative to a very short-term rate such as the federal funds rate.

Chart 3 shows that the rate of growth of bank loans has changed in the same direction as the spread between CD and federal funds rates since December. In fact, from May through August, the 3-month CD rate was below the rate on federal funds suggesting that banks were not interested in tying up funds for a short term of around 3 months. This probably reflects expectations that loan demand will remain weak over the next few months.

The downward pressure on CD rates and rates on other term deposits has been reinforced by the reduction in the discount rate in May 1985. Rates on transaction balances — demand deposits, NOWs, and Super NOWs — have not fallen commensurately, so the rate reductions on term accounts lower the opportunity cost of holding highly liquid short-term assets such as M1.

The current rapid growth of M1 relative to M3 can be explained, then, as a portfolio shift by the public in response to the lower spread between the rates on term and nonterm accounts. In addition, the even faster growth in NOWs, Super-Nows, and MMDAs relative to demand deposits also seems to be a response to the fall in CD rates relative to rates on the interest-bearing components of M1 and M2.

Thus, the phenomenon of fast M1 growth from May to August reflected a shift out of term accounts. M3 was not greatly affected since the shift occurred within its components. Within M2, two opposing effects were at work: small time deposits declined because of the decline in rates, but MMDAs and savings accounts both grew extremely quickly. On balance, M2 grew much more slowly than M1. Of course, the effect of the portfolio shift toward nonterm accounts was most pronounced in M1 since that aggregate contains only nonterm deposits.

The near future and policy implications

In the near future, the shift out of term accounts is likely to slow and perhaps reverse for two reasons. First, if the economy picks up, the resulting increase in loan demand will lead to a rise in CD rates as banks scramble for additional funding. As the spread between the rates on term and nonterm accounts widens, funds should shift back into the former.

Second, if the economy does not pick up, we expect that banks will bring the yields on Super NOWs and MMDAs into line with other yields since they tend to adjust the rates on these accounts only with a lag of some months. This should lead to a slowdown in M1 growth relative to M2 and M3.

This reversal may have begun already. Chart 3 shows that the CD rate has risen relative to the funds rate, and Chart 2 shows that the term com-

Chart 1
Divergent Growth Patterns

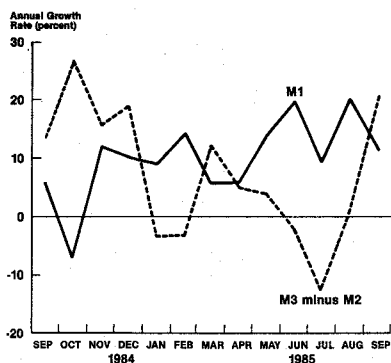
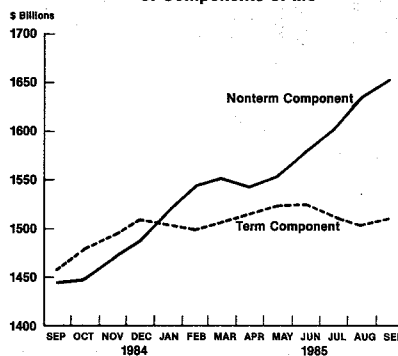


Chart 2
Divergent Dollar Values of Components of M3



ponents of M3 have started to rise as the return on these accounts has become more attractive. Also, the rate of growth of nonterm accounts has fallen. Although developments in September do not provide conclusive evidence that the portfolio shift has reversed itself, they do seem to be consistent with the basic hypothesis of this Letter.

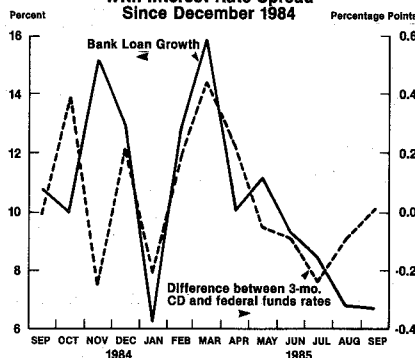
For policy purposes, it is important to realize that a large part of the recent surge in M1 represents purely a financial "disturbance" — in other words, a rearrangement of the public's portfolio that is not directly linked to spending, production, and employment outcomes in the economy.

Since such disturbances do not signal any change in real spending, the rapid M1 growth does not, by itself, indicate that monetary policy has become more expansionary. Nor does it indicate that monetary policy should be tightened to bring M1 into line with the Federal Reserve's target growth ranges. Conversely, a future reverse portfolio shift out of M1 that produces a large reduction in M1 growth would not signal a major contraction in monetary policy.

More generally, this analysis suggests one must be cautious in using M1 as a measure of the stance of monetary policy. Policy can only influence the funds rate directly, while the demand for M1 does not depend directly on the funds rate. The demand for M1 depends instead upon the difference between the return on M1 and the return on alternative assets, and these returns are likely to be generated by business conditions, loan demands, etc.

If, as this recent episode suggests, money holders are highly sensitive to small changes in the relative returns on different assets, substitution among the

Chart 3
Bank Loan Growth Has Moved With Interest Rate Spread Since December 1984



different monetary aggregates is likely to be an important determinant of their relative growth rates, particularly over short periods. Therefore, for any level of very short-term interest rates, the quantity of M1 can vary significantly depending upon the state of the economy, expectations and other factors. Under these conditions, growth in M1 is not likely to provide a reliable signal of future spending plans.

Our analysis implies that while overall movements in interest rates continue to affect the demand for M1, movements in relative interest rates, such as have occurred recently, can lead to wide variation in the growth rate of M1 relative to the broader aggregates. During such periods, it may be difficult to interpret the meaning of any change in a particular monetary aggregate such as M1. However, as the general level of aggregate demand rises or falls, we would expect that all the monetary aggregates will tend to move together.

Bharat Trehan and Carl Walsh,
Economist and Senior Economist

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System. Editorial comments may be addressed to the editor (Gregory Tong) or to the author . . . Free copies of Federal Reserve publications can be obtained from the Public Information Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.

Alaska Arizona California Hawaii Idaho
Nevada Oregon Utah Washington

Research Department Federal Reserve Bank of San Francisco

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding	Change from	Change from 10/24/84	
	10/23/85	10/16/85	Dollar	Percent ⁷
Loans, Leases and Investments ^{1 2}	194,158	- 645	10,141	5.5
Loans and Leases ^{1 6}	175,270	- 499	9,783	5.9
Commercial and Industrial	50,922	396	225	0.4
Real estate	65,200	- 34	3,779	6.1
Loans to Individuals	35,968	58	5,575	18.3
Leases	5,406	14	358	7.0
U.S. Treasury and Agency Securities ²	11,647	- 139	88	0.7
Other Securities ²	7,241	- 7	271	3.8
Total Deposits	198,380	- 5,690	8,865	4.6
Demand Deposits	46,356	- 5,461	3,010	6.9
Demand Deposits Adjusted ³	32,245	1,615	3,454	11.9
Other Transaction Balances ⁴	13,891	- 268	1,831	15.1
Total Non-Transaction Balances ⁶	138,132	38	4,022	2.9
Money Market Deposit Accounts—Total	45,506	103	6,992	18.1
Time Deposits in Amounts of \$100,000 or more	38,496	109	- 3,003	- 7.2
Other Liabilities for Borrowed Money ⁵	23,034	241	2,713	13.3
Two Week Averages of Daily Figures	Period ended 10/21/85	Period ended 10/7/85		
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (-)	52	- 62		
Borrowings	54	82		
Net free reserves (+)/Net borrowed(-)	- 2	- 144		

¹ Includes loss reserves, unearned income, excludes interbank loans

² Excludes trading account securities

³ Excludes U.S. government and depository institution deposits and cash items

⁴ ATS, NOW, Super NOW and savings accounts with telephone transfers

⁵ Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

⁶ Includes items not shown separately

⁷ Annualized percent change