

FRBSF WEEKLY LETTER

September 28, 1990

Interpreting Recent Money Growth

From March to July of this year, the nation's stock of money grew extremely slowly. The Federal Reserve's M2 monetary aggregate expanded at a mere one percent annual rate over this period, and the broader money measure, M3, contracted over this period.

Slow growth in the money stock can be troubling, since in the past, such slowdowns sometimes have preceded slowdowns in the pace of economic activity. Whether the sluggish growth of M2 portends weaker economic activity, however, depends on what caused it. This *Letter* looks at what lies behind the weak money numbers, and draws implications for the reliability of M2 as a guide to monetary policy.

Growth ranges

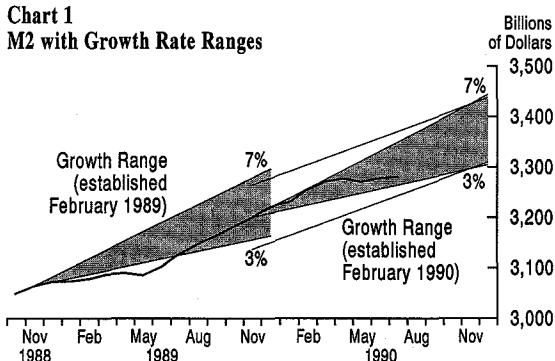
The Federal Reserve sets annual ranges for growth in its M2 and M3 aggregates. M2 comprises currency, transactions deposits, small time and savings deposits, general purpose/broker-dealer money market mutual fund shares (MMMFs), overnight repurchase agreements, and Eurodollar deposits. The broader aggregate, M3, adds large certificates of deposit, institution-only MMMF shares, term repurchase agreements, and term Eurodollar deposits.

The growth ranges adopted for M2 and M3 are intended to provide for monetary growth that is consistent with achieving the Federal Reserve's long-run policy goals of price stability and sustained growth in output. This year, the Federal Reserve established a three-to-seven percent growth range for M2 and a one-to-five percent range for M3.

The Federal Reserve also publishes data on a narrower monetary aggregate, M1, which comprises currency and checkable deposits. But the Fed has not established a range for this aggregate since 1985 largely because movements in this aggregate no longer track movements in income and prices very well.

Since the range for M1 was dropped, moreover, the monetary aggregates as a group have been de-emphasized in the conduct of monetary policy. Although movements in M2 (and possibly M3) continue to be associated with long-run trends in the price level, short-run movements in these aggregates often are unrelated to trends in income and prices. Last year, for instance, M2 growth decelerated sharply in April, and actually contracted in May, leaving the aggregate well below its range (see Chart 1). This weakness was not the result of a slowing economy, nor a tightening in monetary policy, but instead, appears to have been related to higher-than-expected income tax payments.

Chart 1
M2 with Growth Rate Ranges



Is the recent weakness unusual?

Given that the monetary aggregates increasingly have been buffeted by developments that are unrelated to movements in economic activity, it is important to examine the causes of this slowdown to determine the appropriate policy response. The first step is to examine the recent weakness in M2 in light of its historical behavior to see whether this weakness is "unusual." To do so, we estimated an equation that imposes a long-run relationship between the levels of M2 and interest rates, income, and prices, but allows M2 to deviate from this relationship in the short run. Given this estimated relationship, we used the actual

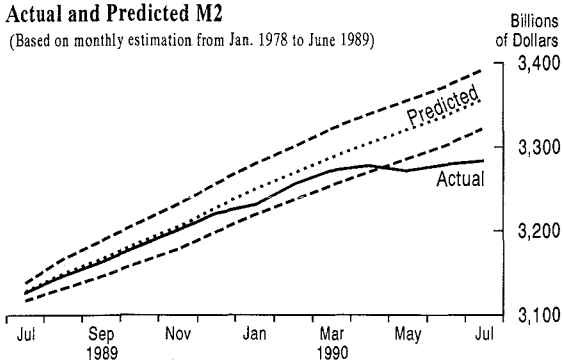
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values of interest rates, personal income, and prices to predict the levels of M2 that would have prevailed if no other factors had been at work.

Chart 2 depicts these forecasts, which are centered within an "error band" that allows for "normal" deviations of M2 from its long-run level. Values outside this band would be unlikely given the historical range of disturbances to M2, and thus suggest that factors other than the levels of interest rates, inflation, and income have been exerting an unusually strong influence on the behavior of M2.

Chart 2
Actual and Predicted M2

(Based on monthly estimation from Jan. 1978 to June 1989)



Dashed lines define an 'error band' that is plus/minus two standard errors from the predicted values.

As the chart shows, from mid-1989 to March 1990, M2 was growing at about the pace one would predict, given the levels of interest rates, inflation, and economic growth that prevailed at the time. In the first quarter of 1990 actual M2 was lower than predicted M2, but still well within the error band. After March, however, M2 growth slowed considerably. On account of this slowdown, the level of M2 was outside the error band from May to July, indicating that growth over the March-July period had been unusually slow.

What accounts for slow growth?

A number of factors help to account for this behavior. Some of the weakness in M2 can be traced to sluggish growth in its key M1 transactions account components: demand deposits and NOW accounts. However, since M1 has not been very reliable over much of the "post-deregulation" era, weakness in that portion of M2 by itself is not very revealing.

What is more notable is that growth in the non-transactions component of M2 also decelerated sharply. A major contributor to this deceleration was a decline in MMMF shares. MMMF shares grew quite rapidly in 1989 and into the first quarter of this year, but were flat in April and contracted at a 20 percent annual rate in May. Growth resumed in June and July, but at a modest pace.

The deceleration in the growth of money fund shares may have been due to portfolio adjustments associated with a rise this year in longer-term yields. Specifically, investors may have shifted funds from short-term investments like MMMF shares that are included in M2 to higher-yielding, longer-term, fixed-income and equity instruments not included in M2 or M3.

To the extent that these types of portfolio adjustments lie behind the decline in money fund shares and, thus, the sluggish growth in M2, the recent unusual behavior of M2 is unlikely to be indicative of tight monetary policy. Nor do these portfolio shifts provide clues regarding the future course of the economy.

Thrift restructuring

Another factor that contributed to the slow growth in M2 was sluggish growth in small-denomination time and savings deposits. These deposits rose at only about a 1½ percent rate from March to July, down from about a four percent rate in the first quarter. Thrift institutions' deposits have contracted significantly. And although commercial banks have captured some of these deposits (some directly through acquisitions of thrifts), the rise in bank deposits has only partially offset the contraction at thrifts.

To a large extent, these developments are the result of a change in banks' and thrift institutions' deposit pricing strategies associated with the ongoing restructuring in the thrift industry. Specifically, the closure of insolvent thrifts that were paying premium rates to attract deposits has enabled competing institutions to lower their deposit rates. Indeed, data on interest rates on money market deposit accounts and small-denomination time accounts show that rates on commercial bank deposits recently have been lower than normally would be expected given prevailing levels of other market rates. For many

investors, this change in pricing has made deposits less attractive than other financial instruments, such as Treasury bills, that are not included in M2.

Credit crunch?

In addition to the elimination of high-flying thrifts, slower growth in lending by commercial banks also may be partly responsible for the less aggressive pricing of deposits and the resulting slow growth in M2. It has been argued that one factor contributing to this slow loan growth is the so-called "credit crunch," which, many argue, is due to a decline in the quality of loan portfolios at some banks and a perception that regulatory standards have become more stringent.

To the extent the sluggish growth in M2 is the result of such a credit crunch, it could be signalling an impending slowdown in economic activity. However, the severity of the credit crunch and, therefore, its impact on the economy are the subject of considerable debate. For example, slow loan growth simply may result from the slowdown in economic activity in recent months. In addition, slower bank loan growth could be offset to some degree by an expansion in credit from other sources. Nevertheless, to counter concerns that a credit crunch might slow the economy, the Federal Reserve eased monetary policy modestly in July.

Is M2 a useful guide?

Unusual movements in M2 warrant investigation, both because the aggregate appears to have a stable long-run relationship with interest rates, income, and prices, and because the Federal Reserve still sets ranges for the aggregate. It appears that from March to July of this year, M2 was distorted in part by portfolio shifts from money market mutual funds and the resolution of insolvent thrift institutions. Neither of these developments would suggest that recent M2 growth provides any information about the future course of the economy.

At the same time, it is possible that M2 reflected some slowing in credit extensions at banks, which could have had an effect on economic activity. Nonetheless, given the other influences on the behavior of M2 in recent months, it is not clear whether changes in this

aggregate have been a good measure of the potential impact of a credit crunch. Data on credit extended by banks and other sources should prove better guides than M2 in this case.

In any event, data through late August suggest that M2 growth has picked up, with the M1 and MMMF components providing much of the boost. This further complicates the interpretation of the recent behavior of M2. Historically, such a pickup in growth would have been seen as a positive development for economic activity. In today's environment, however, renewed growth in transactions deposits and MMMF shares could reflect an increased demand for liquidity in response to concerns about developments in the Middle East, the rise in oil prices, and the direction of the economy.

Implications for M2's future role

Our analysis of the recent behavior of M2 is not very comforting as far as the future role of the aggregate is concerned. Experience over the last few years suggests that M2 is susceptible to many different kinds of disturbances that are unrelated to key macroeconomic variables. It appears that many investors do not perceive much difference between nontransactions accounts within M2 and those outside M2. Consequently, M2 growth can change because of portfolio reallocation decisions, without there being substantial implications for the economy.

The deregulation of financial institutions over the last decade has exacerbated this problem because banks and thrifts are now free to vary the rates they offer on various deposits. Consequently, changes in the degree of substitutability between various kinds of accounts make M2 more susceptible to disturbances, and changes in the way in which banks and thrifts price these accounts make such disturbances more likely.

The extent to which these developments will affect the long-run relationship between M2 and key macroeconomic variables remains to be seen. However, these developments do suggest that M2 is unlikely to provide reliable signals about cyclical movements in the economy.

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