
FRBSF WEEKLY LETTER

June 28, 1985

Signaling the Fed's Intentions

Since the beginning of this year, the M1 monetary aggregate, which consists of currency and all checkable deposits, has been growing above its "cone," a shape often used to represent the Fed's target range for the aggregate (see Chart). The upper and lower boundaries of the cone show the path of M1 if it were to grow precisely at the upper and lower limits, respectively, of the Fed's annual target ranges. Thus, in the Chart, the upper edge of the cone shows the path of M1 if it were to grow throughout the year at the 7 percent upper limit of the Fed's 4 to 7 percent target range for M1 growth in 1985. Actual M1 growth from the fourth quarter of 1984 (the base for the 1985 targets) to the first quarter of 1985 was 10.5 percent, putting M1 above the cone (also shown in the Chart).

During the first quarter of the year, the financial press speculated that the Federal Open Market Committee (FOMC), the monetary policy making arm of the Fed, would be forced to tighten monetary policy because M1 was growing above the cone. However, Chairman Volcker in his February testimony to Congress on the targets for 1985 said that "Interpreted rigidly (and wrongly), the narrowness of a cone in the early part of the year. . . would attach policy importance to levels or movements in the various aggregates that in fact have no significance." He went on to say that ". . . a better 'pictorial' approach would be to illustrate the targets by . . . parallel lines. . ." This alternative representation of the target for M1 as a band is also shown in the Chart.

This *Letter* discusses why the way in which the FOMC's targets are presented is important. It begins by looking at how the FOMC began to set annual targets and to formulate them as ranges.

Why long-run target ranges?

The FOMC began expressing explicit annual targets for growth in the monetary aggregates in response to House Concurrent Resolution 133 (passed in March 1975), which represented Congress' desire to make monetary policy decisions more explicit and identifiable. Several different issues had to be resolved in specifying the appropriate targets. One was whether to express the targets as a single value or as a range.

Several factors suggest that it would be desirable to formulate the target as a range. The first is one of technical control: It is extremely doubtful that the FOMC can control money precisely enough to be able to hit one specific value. Another, more fundamental, reason is that the growth rate of the monetary aggregates is subject to substantial transitory changes in the short-run—changes that will not persist. This implies that the FOMC should not always act to offset a change in the growth rate of money, something that it may be forced to do if it were targeting a single number.

Finally, the Fed is required by the Federal Reserve Act "to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." Clearly, if the Fed were required to influence prevailing economic conditions when those conditions are deemed undesirable, it must have the leeway to vary the growth rate of money. For instance, money may be growing at its prespecified target rate at the same time that the level of unemployment is higher than acceptable. In such a case, the FOMC would need some latitude for adjusting money growth, and a range of target growth rates gives it that latitude.

The FOMC does have the alternative of changing its targets. However, frequent changes in targets endanger the FOMC's credibility in the sense that the market might come to believe that the FOMC is not committed to its targets. Consequently, having a narrow range of target growth rates seems a preferable way of giving the FOMC flexibility to respond to new situations and unforeseen circumstances.

For these reasons, the monetary targets are expressed as ranges. It is important to note that the ranges specify maximum and minimum growth rates for the monetary aggregates from the fourth quarter of the base year to the fourth quarter of the current year. Nothing in the way that these ranges are formulated implies that monetary growth must *always* stay within this range during a year. However, in early 1985 (and, on occasion, before that as well), a large number of financial market participants behaved as though this were exactly what was implied. To an important extent, their behavior

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was a reaction to the use of cones in depicting the target ranges. As a result, a situation was created in which market expectations—about how the FOMC would react to “deviations” of the monetary aggregate from target—were inconsistent with the FOMC’s intentions.

The market’s viewpoint

Since the growth of the money supply has an important bearing on economic magnitudes such as the rate of interest, financial market participants must attempt to forecast this growth. In making their assessment, participants must determine, among other things, whether the FOMC is committed to attaining its targets.

On the basis of its recent record, there seems to be ample evidence that the FOMC is committed to attaining its monetary targets. In the last four years, target ranges were specified 5 times. (A new target was specified in the middle of 1983 to allow for a sharp decline in velocity.) Among these target periods, M1 was above its target range only in 1982 and the first half of 1983. Since that narrow period also was one in which the velocity of M1 declined sharply, a case can be made that the FOMC was justified in letting M1 exceed its target.

Given their belief in the FOMC’s commitment to attaining its targets, market participants will obviously also try to determine whether conditions exist to force the FOMC to act. What they have to determine at any point during the year is whether the underlying, systematic trend in money growth is high enough that money growth for the whole year will exceed its target range. The data on which these decisions are made are simply the weekly and monthly M1 statistics. As mentioned above, the statistics may be subject to large short-run, temporary fluctuations. Some economists, for example, have calculated that this transitory component may be greater than \$3 billion in any given week. The market’s problem is that it must try to separate the underlying trend in money growth from its temporary, nonsystematic components.

It is here that the way in which the targets are presented becomes important. It appears that market participants use a rule of thumb in their decision making: they focus upon where the observed value of money is in relation to the boundaries of the target cone. Should observed money be growing above the cone, they conclude that the underlying rate has changed. Their belief that the

FOMC is committed to fighting inflation then leads them to expect that the FOMC will act to slow down the rate of money growth.

This is the reason that money growth above the cone acquires “policy importance.” In principle, given their belief that the FOMC is committed to fighting inflation, market participants are likely to react in the same way no matter what sort of device is used to illustrate the target ranges. However, there are special reasons using a cone makes it more likely that market participants will expect the FOMC to act in the early part of any year.

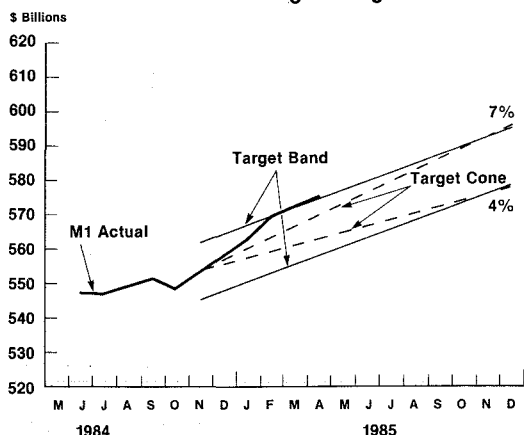
The problem with using cones

There are both technical and non-technical reasons that money is quite likely to grow outside the cone in the beginning of the year. First, the base for the cone is the average value of the monetary aggregate for the fourth quarter of the previous year, which is centered in November (see Chart). If, between mid-November and the end of the year, money grows faster than the maximum rate of the target range for the succeeding year, it will already be above the cone when the new year begins. This is what happened, for example, at the end of 1984, when the FOMC let the money supply expand vigorously in the fourth quarter to offset slow money growth in the third quarter and to revive the lagging economy (see Chart). In this way, developments in the previous year can determine where the money stock is relative to its target in the new year.

Second, the cone’s narrowness in the early part of the year creates an additional technical problem. In any particular week, there is a reasonably high probability that transitory events will dominate the underlying trend. For instance, variations in tax refunds by the Treasury can cause relatively large swings in money during any given week. These relatively large random movements can push the monetary aggregate outside the narrow part of the cone. For example, at the end of February 1985, the width of the cone for M1 was approximately \$4.8 billion. A random shock of \$3 million during a week in February could easily have pushed the level of M1 outside the cone.

Finally, there are policy reasons that make it possible for money to grow outside the cone in the beginning of the year. Should the FOMC decide that economic conditions make it necessary to alter the growth rate of money in the short-run,

Alternative Ways of Depicting the M1 Target Range



even relatively small increases in the money supply to accomplish this are likely to place the level of money outside the cone in the first few months of the year. This implies that the FOMC has less discretion to vary the level of money in the economy in the beginning of the year than it does later on if it wishes to keep money growth inside the cone. Such a restriction is undesirable since it arises only because of the shape of the cone.

Any of the factors discussed above can cause money to lie outside the cone in the beginning of the year. Once this happens, market participants may expect the FOMC to take action to bring money back within the cone because these participants act as if adherence to the FOMC's annual target ranges for money implies that money must stay within the cone. This causes a problem for the conduct of monetary policy because it sets up a conflict between market expectations about likely policy actions and what the FOMC may itself perceive to be the most desirable course of action.

The FOMC's dilemma then is whether to conduct policy according to its own perception of underlying conditions while ignoring the possible resurgence of inflationary expectations, or to conduct policy with a view to keeping inflationary expectations in check and consequently acting contrary to its best judgment. The problem with using cones to illustrate target ranges is that they make it much more likely that the FOMC will face such a dilemma early in the year.

The FOMC's solution

This year, in his February testimony to Congress, Chairman Volcker presented an alternative inter-

pretation of the target range for M1 growth in terms of the levels of M1 throughout the year. This interpretation expresses the target range as a pair of parallel lines projected back from the fourth quarter average of M1 in the target year. Adherence to this "band" would produce an average growth in M1 over the year within the FOMC's target range. In comparison to a cone, therefore, it reduces the chance that the random component in money growth will cause money to pierce the target range in the early part of the year. It also solves the problem of uneven discretionary scope for the FOMC over the entire year.

Summing up

The change in the method of presenting targets appears to have been motivated by the FOMC's concerns about market expectations that the Committee would have to tighten monetary policy. The increase in the width of the range in the early part of the year was probably an attempt to convey to the market the idea that the FOMC did not regard money growth outside the cone as particularly alarming at that time. This interpretation is reinforced by the published policy record of the February 12 FOMC meeting, which shows that the Committee voted to leave policy unchanged.

In a broader context, it is quite apparent that the market's fascination with the target ranges is due to the increased credibility of the FOMC's anti-inflation stance. Because the market believes that the FOMC is committed to fighting inflation, it tends to regard all departures from the target ranges as phenomena which the monetary authority must eventually act to correct. The Fed, in turn, has been trying to communicate to the markets that other factors may make it entirely appropriate for the money stock to lie temporarily outside the depicted ranges.

Viewed in this way, the adoption of bands to illustrate monetary policy probably has a short-lived usefulness. It reduces the chances that money will be seen growing outside its target range, but it does not solve the general problem of how to convey to financial markets that all departures from the depicted target, no matter how expressed, do not require "corrective" action by the FOMC. In the event some departure from the band were ever appropriate, the FOMC would again face the problem of communicating to the markets that it would be inappropriate to return M1 to within the band.

Bharat Trehan

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BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount	Change	Change from 6/13/84	
	Outstanding 6/12/85	from 6/5/85	Dollar	Percent ⁷
Loans, Leases and Investments ^{1 2}	191,677	278	11,676	6.4
Loans and Leases ^{1 6}	173,631	610	12,697	7.8
Commercial and Industrial	52,058	95	2,677	5.4
Real estate	63,216	48	2,832	4.6
Loans to Individuals	34,301	85	6,205	22.0
Leases	5,379	1	376	7.5
U.S. Treasury and Agency Securities ²	11,078	- 363	- 870	- 7.2
Other Securities ²	6,968	31	- 151	- 2.1
Total Deposits	197,415	-1,262	8,709	4.6
Demand Deposits	46,961	-1,273	1,941	4.3
Demand Deposits Adjusted ³	31,306	230	1,019	3.3
Other Transaction Balances ⁴	13,827	- 273	1,388	11.1
Total Non-Transaction Balances ⁶	136,626	284	5,378	4.0
Money Market Deposit Accounts—Total	44,210	215	5,147	13.1
Time Deposits in Amounts of \$100,000 or more	38,315	25	- 1,150	- 2.9
Other Liabilities for Borrowed Money ⁵	21,672	-1,672	3,805	21.2
Two Week Averages of Daily Figures	Period ended 6/3/85	Period ended 5/20/85		
Reserve Position, All Reporting Banks				
Excess Reserves (+)/Deficiency (-)	- 3	65		
Borrowings	32	52		
Net free reserves (+)/Net borrowed(-)	- 35	13		

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