

federal government means higher interest rates. Historically, excessive money supply growth has triggered increases in inflation and interest rates. But, these are long-run effects.

It is not so clear what would happen in the short run if the Federal Reserve tried to accommodate more government borrowing with higher money supply growth. In the short run, it may be possible to reduce interest rates slightly with higher targets for the monetary aggregates. Whether this strategy

would work and for how long depend, in part, on the sophistication of participants in the market for long-term securities. If market participants believed that excessive money growth would lead to further inflation, they would almost certainly bid up long-term rates and drive borrowers into the short-term market, which would drive up short-term rates. The impact of increased money supply growth on short-term interest rates would be offset by inflationary expectations. The net impact on interest rates in the short run is ambiguous. The net effect in the long run is clear: interest rates would be higher.

### Summary

The Federal Reserve sets monetary targets based on its desire to achieve sustainable economic growth and gradual disinflation. Monetary targets are set low enough to reduce inflation and interest rates in the long run. Large budget deficits must be financed in credit markets, because the Federal Reserve cannot buy large amounts of government debt without creating excess money growth. To lower interest rates, the budget deficit must be reduced, and money supply growth must be limited to a non-inflationary rate.

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# economic commentary

## The Monetary Targets in 1984

by William T. Gavin

Every February, the Chairman of the Federal Reserve Board of Governors reports to Congress on the economy and presents objectives for monetary policy for the coming year. The chairman's reports are required by the Full Employment and Balanced Growth Act of 1978 (Humphrey-Hawkins). In July, the chairman reviews the current years' objectives and presents tentative objectives for the next year. These objectives are stated as annual target ranges for growth in the supply of money and credit. As Chairman Paul A. Volcker stated in his February 1984 report, "The ranges for 1984 are intended to be consistent with the basic policy objective of achieving long-lasting economic expansion in a context of continuing control of inflationary pressures."<sup>1</sup>

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*The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.*

**Table 1 Objectives for Money and Credit for 1984<sup>a</sup>**  
Ranges in percent

Monetary aggregate	1984 ranges	Tentative 1984 ranges, set July 1983	1983 ranges, set July 1983
M-2	6.0 to 9.0	6.5 to 9.5	7.0 to 10.0 <sup>b</sup>
M-3	6.0 to 9.0	6.0 to 9.0	6.5 to 9.5
M-1	4.0 to 8.0	4.0 to 8.0	5.0 to 9.0 <sup>c</sup>

a. Ranges apply to periods from fourth quarter to fourth quarter, except as specified.

b. Range applies to period from February-March 1983 to fourth quarter of 1983.

c. Range applies to period from second quarter of 1983 to fourth quarter of 1983.

SOURCE: "Monetary Policy Report to the Congress," *Federal Reserve Bulletin*, February 1984, p. 69.

Not many years ago, economists believed policymakers had to accept trade-offs between unemployment and inflation. Today, most economists have come to agree that this trade-off—if it exists at all—is only a short-run phenomenon. The experience of the last 20 years suggests that more inflation leads to more uncertainty and less efficiency in the economy. Current Federal Reserve policy is based, in part, on the premise that the best way to increase potential real output and reduce unemployment over the long haul is to eliminate inflation. As Chairman Volcker stated, "In a real sense, the greatest contribution that the Federal Reserve itself can make to our lasting prosperity is to foster the expectation—and

the reality—that we can sustain the hard-won gains against inflation and build upon them."<sup>2</sup>

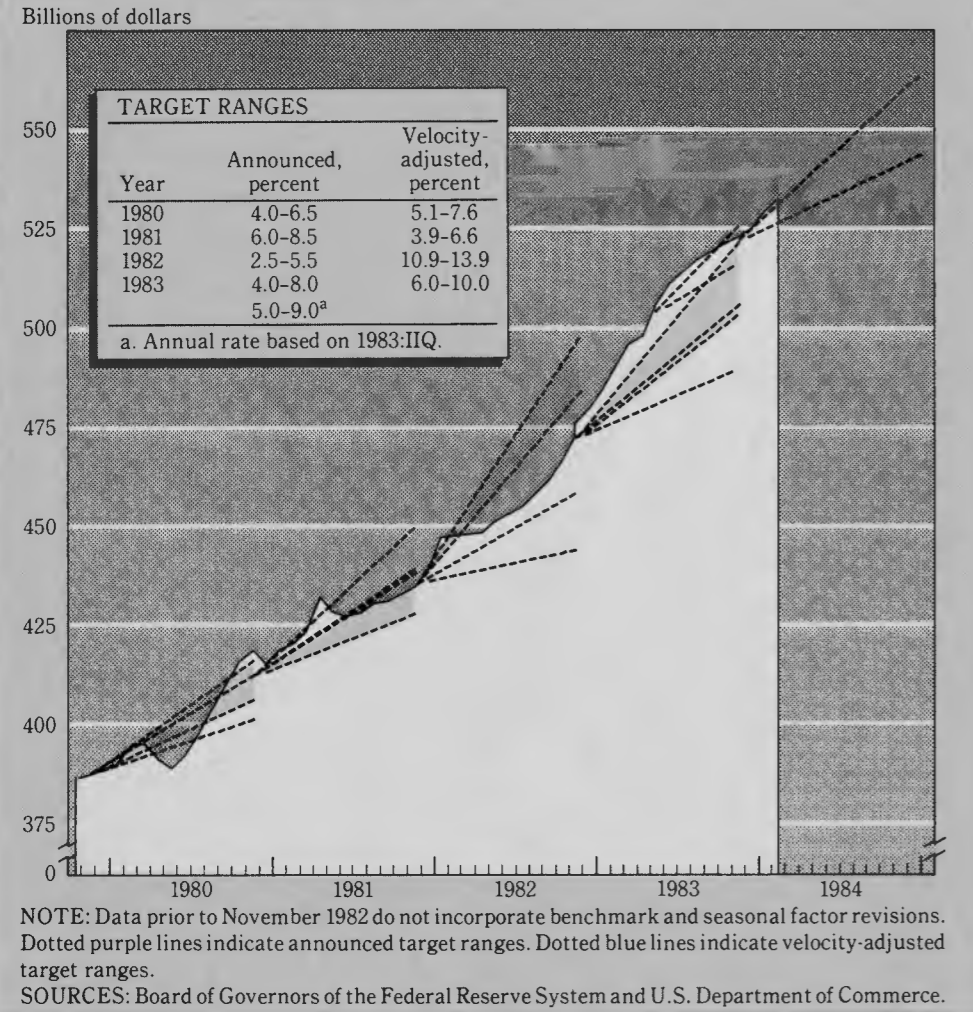
### The 1984 Targets

In his recent testimony, Chairman Volcker presented targets consistent with a continuation of the Federal Reserve strategy of gradual reduction of growth in the supply of money and credit. The targets for 1984 were set 0.5 percent to 1 percent below the target ranges for 1983 (see table 1). The 1984 target range for M-1 is 4 percent to 8 percent. This current target is 1 percent below the 5 percent to 9 percent range chosen for the second half of 1983 and the same

1. See "Monetary Policy Report to the Congress," *Federal Reserve Bulletin*, vol. 70, no. 2 (February 1984), p. 71.

2. Statement of Paul A. Volcker, Chairman, Board of Governors of the Federal Reserve System, before Committee on Banking, Finance, and Urban Affairs, House of Representatives, February 7, 1984, p. 17. See also "Monetary Policy Report to the Congress," pp. 100-01.

**Chart 1 Target Ranges for M-1**



as the tentative range suggested in July 1983. Once again, the target range for M-1 is 4 percentage points wide, reflecting continuing uncertainty about the long-term behavior of M-1 velocity, or the ratio of GNP to M-1. Developments over the past two years suggest caution in the use of M-1 as a primary target for monetary policy.

In August 1982, M-1 began to grow very fast. Normally such growth would have signaled the end of the recession, but the economy did not recover in 1982. The sustained and rapid growth of M-1 during the recession caused

an unprecedented decline in M-1 velocity and led the Federal Open Market Committee (FOMC) to de-emphasize the M-1 target in October 1982, placing more emphasis on the broader M-2 and M-3 aggregates.

While M-1 subsequently was reinstated as a target, it does not hold the primary status it held between October 1979 and October 1982. Although several studies have tried to explain the unusual behavior of M-1 velocity, none of them offers a completely satisfactory explanation.<sup>3</sup> In view of the uncertainty

3. For an exhaustive study of the effects of deregulation on the opportunity cost of holding transactions balances, see Flint Brayton *et al.*, "Alternative Money Demand Specifications and Recent Growth in M-1," Manuscript (Board of Governors of the Federal Reserve System, May 23, 1983).

about velocity, M-1 has a probationary status for 1984. The desired outcome relative to the 4 percent to 8 percent range clearly depends on the behavior of velocity.

M-2 grew 12.1 percent during 1983. In contrast to the usual practice of basing targets on average fourth-quarter levels, the target range for 1983 was based on the average level of February and March 1983. From that base, M-2 grew 8.3 percent, or slightly below the middle of the 7 percent to 10 percent target range. The February to March base was chosen because of uncertainty surrounding deposit flows after the introduction of money market deposit accounts (MMDAs) in December 1982. When the M-2 target was set, the Federal Reserve was unable to predict the amount of funds that would flow from outside M-2 into the MMDAs, but expected that there would be a transition period that would be largely completed by March.

For 1984, the FOMC has reduced the M-2 target growth range by a full percentage point from the target range established in February 1983. The target range, 6 percent to 9 percent, is 0.5 percent below the tentative range set in July 1983. The 1983 range had been raised from 1982 to accommodate a temporary movement of funds associated with residual flows into MMDAs from outside M-2 after March. One reason for the further 0.5 percent downward shift in the M-2 range for 1984 was the belief that this one-time temporary movement of funds was over.

The 1983 M-3 target was not adjusted for MMDA growth. M-3 was the only aggregate to grow above its 1983 range of 6.5 percent to 9.5 percent. In 1983, the FOMC introduced a monitoring range for domestic nonfinancial sector

Three other studies attempting to explain the unusual behavior of M-1 velocity were presented at the *Conference on Monetary Policy and Velocity*, Federal Reserve Bank of San Francisco, December 1983. See Robert J. Gordon, "The 1981-82 Velocity Decline: A Structural Shift in Income or Money Demand?"; Michael J. Hamburger, "Recent Velocity Behavior, the Demand

**Table 2 Economic Projections for 1984**

Economic indicator	FOMC members and other FRB presidents		Administration's projections
	Range	Central tendency	
Change, fourth quarter to fourth quarter			
Nominal GNP	8.0 to 10.5	9.0 to 10.0	9.8
Real GNP	3.5 to 5.0	4.0 to 4.75	4.5
GNP deflator	4.0 to 6.0	4.5 to 5.0	5.0
Average unemployment rate in fourth quarter	7.25 to 8.0	7.5 to 7.75	7.7

SOURCE: "Monetary Policy Report to the Congress," *Federal Reserve Bulletin*, February 1984, p. 71.

debt. Actual growth for this credit aggregate was 10.5 percent in 1983—in the top half of the 8.5 percent to 11.5 percent range. This experimental target range has been set at 8 percent to 11 percent for 1984.

#### Gradual Disinflation

If the real world were as regular and predictable as the world presented in econometric models, the Federal Reserve could reduce target ranges and actual monetary growth in a predictable way from one year to the next. While the target ranges and actual monetary growth rates have not been reduced smoothly and gradually each year, the Federal Reserve has come close to achieving this objective for *effective* money growth, *effective* being the amount of money growth plus or minus unexpected changes in velocity. Each year the targets are chosen based on an implicit assumption about *velocity*. To see how the Federal Reserve has achieved reductions in effective money growth, we can compare the deviations of actual M-1 growth from the pre-announced targets with the unexpected developments in velocity.

for Money and Monetary Policy"; and John A. Tatom, "Alternative Explanations of the 1982-83 Decline in Velocity." See also John P. Judd, "The Recent Decline in Velocity: Instability in Money Demand or Inflation?," *Economic Review*, Federal Reserve Bank of San Francisco, Spring 1983, pp. 12-19.

From the fourth quarter of 1979 to the fourth quarter of 1983, M-1 growth was never inside its target ranges at year-end (see chart 1). In 1981, M-1 fell below the range; in all the other years, M-1 grew beyond the target ranges.

We have adjusted the target ranges to reflect *ex post* information about velocity and how it deviated from previous patterns. These ranges are represented by the shaded areas in chart 1, showing M-1 growth at the top of the range in 1980, in the middle of the range in 1981, well below the range in 1982, and at the top in 1983. We arrived at these figures by assuming that the FOMC based its target ranges on a velocity growth equal to a 20-year moving average.<sup>4</sup> Different estimates of the velocity trend would lead to different effective ranges. The point illustrated by these adjusted targets is that unexpected developments in velocity seem to explain the discrepancy between the actual target ranges and actual monetary growth rates.

4. It should be emphasized that the FOMC did not necessarily follow this procedure.

In his February 1984 prepared testimony, Chairman Volcker explicitly cited this relationship between the M-1 target and the velocity assumption. "Growth in the midpoint of the (M-1) range would appear appropriate on the assumption of relatively normal velocity growth; if velocity growth remained weak compared with historical experience, M-1 growth might appropriately be higher in the range."<sup>5</sup>

FOMC velocity forecasts for 1984 might be approximated from target ranges and the central tendency of nominal GNP forecasts made by FOMC members and other Federal Reserve Bank presidents (see table 2). The central tendency of the nominal GNP forecast is 9 percent to 10 percent. Given a 6 percent midpoint for the M-1 range, the implied central tendency of the M-1 velocity assumption is 3.5 percent.

#### The Targets and the Federal Deficit

Much of Chairman Volcker's testimony before various congressional committees treated the relationship between the 1984 targets and the large federal budget deficit. To achieve disinflation, it is necessary to limit the supply of money and credit. The Federal Reserve is only one source of funds on the supply side of the credit markets. The federal government is only one user of funds on the demand side. Given stable growth of the money supply, the level of the interest rate depends on actions of all the other suppliers and users of funds in the credit markets. Other things being equal, more borrowing by the

5. See "Monetary Policy Report to the Congress," p. 72.