

alternative of assuming that there would be no change in the distribution from period to period. The estimates suggest that more than half of the time prediction errors would be $\$1\frac{1}{2}$ billion or less.⁶ These errors in prediction must be interpreted in the light of an attempt to control monetary growth. Errors could be reduced substantially over longer periods than a week or two if monetary policy were implemented so as to offset prediction errors in one period by compensating changes in the target the following period. For given settings of policy instruments, reasonable predictability in deposit changes and changes in the quantity of lawful money over very short periods supports the conclusion that the Federal Reserve *could* ordinarily manipulate its instruments to have a highly predictable impact on the amount of member bank deposits and money on a month-to-month or quarter-to-quarter basis.

A question must be raised with respect to the actual relationship of money to policy instruments if monetary control became the proximate policy objective. If the F.R. utilized its instruments to constrain monetary growth to a desired level, induced changes in interest rates could feed back to affect changes in money. The point is that if the structure of the economy has been one such that policy instruments have moderated interest rate variability, then estimates of financial behavioral patterns could be expected to be biased. A simple illustration can make this clear. Suppose there is a change in demand for bank credit which prompts banks to sell securities. The effect would be to increase market rates on private and government securities. But if the monetary authority conducts open market operations to prevent these increases, it would increase the amount of lawful money in the system and in the immediate run moderate the increase in interest rates. Statistical data would show that changes in the amount of lawful money were directly associated with changes in the quantity of bank credit and deposits. The question is whether there would be a comparable increase in the quantity of money and bank credit if the F.R. initiated the action by purchasing the same quantity of securities where there had not first been an increase in the demand for bank credit.

There is little question that the F.R. could increase the quantity of lawful money by any given amount. This would induce banks to extend credit and to issue deposits. In the immediate run this would decrease interest rates. And that in turn would induce the public to borrow and to add to deposit holdings. From cycle to cycle or historically over long periods, it is reasonable to conclude that these policy actions have played an independent role.⁷ The question is whether they have played an independent role, week to week and month to month; and if they have not, how can one interpret the short term relationship between money and bank credit, and the instruments of policy?

Though the evidence is incomplete I am willing to conclude that the predictability of lawful money and the distribution of money is sufficiently great that actual manipulation of controlled variables to limit variation in monetary growth could be accomplished. There is no need over reasonably long periods of time, certainly a quarter-to-quarter basis, for average monetary growth to deviate from desired rates. The money supply could be controlled if it were desired.

III. WOULD THERE BE INCREASED SHORT TERM VARIATION IN MARKET INTEREST RATES AND MONEY MARKET CONDITIONS IF THE FEDERAL RESERVE WERE PERSUADED TO LIMIT VARIATION IN MONETARY GROWTH?

The evidence must come from someplace else than the present U.S. For many years the F.R. has acted as a shock absorber, preventing short term variability in interest rates or other measures of money market conditions from desired values. The desired values have been subject to change, but, for a given level, changes in any of the uncontrolled factors that would otherwise change market yields and money market conditions have been offset by policy reactions. Indeed there have been many occasions when the immediate effect on money market conditions of one monetary policy action has been almost altogether offset by another.

The prediction that there would be increased short term variability in interest rates if the F.R. moderated variability in monetary growth is based on the following evidence:

There is greater seasonal and random variability in free market rates of interest on short term instruments in other countries where the central bank takes

⁶ William G. Dewald, "Control of Member Bank Deposits," Econometric Society Winter Meeting, 1964, unpublished.

⁷ Milton Friedman and Anna J. Schwartz, "A Monetary History of the United States, 1867-60," Princeton: Princeton University Press, 1963.