7. Lags

Research performed by Professor Milton Friedman and Mrs. Anna Schwartz has shown that the leg between peaks in money growth and in economic activity has ranged from 6 to 29 months. The lag from the trough in money growth to the trough in economic activity has ranged from 3 to 22 months. This great variability has been interpreted as demonstrating the uncertainty of monetary policy. It is argued that an action taken, say, to curb an expansion may achieve its main effects only in the succeeding recession.

This reasoning seems unconvincing. The peak rates of monetary growth rarely can be interpreted as indicating a deliberate stance of monetary policy. Monetary policy has not been guided by money growth. Certainly one cannot assume that the start of a decline in money growth marks the moment when the monetary authority decided to put on the brakes. Accordingly, the lag from the peak in money growth to the peak in economic activity is not indicative of the lag of monetary policy. The same applies to the troughs of money growth and economic activity.

A better test of the lag in monetary policy can be derived from observing its effect on the occasion of drastic shifts in policy. Such a shift occurred in 1966. It took only four months to move from reasonable liquidity in the financial markets in April to a serious crunch in August. It took little time to convert a crunch into expectations of recession, and only another four months to move from the crunch to a positive halt in the growth of industrial production in November. Mild monetary measures are another thing—their effect may well be long delayed, since they are not intended to produce abrupt changes in eco-

nomic activity.

At a more theoretical level, the lead-lag relationships exhibited by money growth and the level of income, respectively, have been examined, as well as some properties of models embodying a fixed money rule. (James Tobin and William C. Brainard, "Pitfalls in Financial Model-Building," paper presented at the December 1967 meeting of the American Economic Association; Richard Marcotulli, "Lags Under a Fixed Rule and Under Discretionary Monetary Policy." unpublished manuscript). These analyses show that the nature of the leads and lags depends heavily on what factor is assumed to be "driving" a cyclical fluctuation, and what causal relationships are assumed to exist among the various factors. It is even possible to show that money growth may lead income in a model where, by assumption, money has no influence on income at all. Under different assumptions, the rate of money growth, or the level of money supply, may lag changes in income, yet by assumption have a causal effect upon income. The length of time over which a system, once thrown out of balance, returns to equilibrium tends to be, in general, longer under a fixed rule than under a reasonable discretionary policy. While these models cannot form a basis for policy, they serve to show that observed relationships, such as the lead of money growth over income levels, do not unambiguously point to any particular casual mechanism. They also show that a fixed rule may be a costly substitute for sensible discretionary policy. To use a simply analogy, a fall in the barometer usuallynot always-precedes rain. No conclusions as to causality can be drawn.

8. Comparison of Results of a Fixed Rule and of Actual Policy Measures

Studies have been made seeking to compare the performance of variously specified money growth rules with actual performance. Usually this involves specifying what policy would have been optimal at any given time, and examining the degree to which the rule and actual policy, respectively, have conformed to this optimum. The cylical behavior of the economy makes specification of optimum policy rather uncertain. For instance, it depends entirely on the lags with which monetary policy is assumed to work, how soon during a cyclical expansion monetary policy should shift from stimulation to restraint, and whether it should shift back again from restraint to stimulation ahead of the upper turning point. Analogous problems arise on the downside. Again, the relative weight given to full employment, price stability and the balance of payments respectively, will influence what is considered optimal policy. There is also the question of defining "policy". Policy may not look the same in terms of a money supply standard, a credit expansion standard, or an interest rate standard. Thus the attempt to compare policy by rule and by discretion against an optimal policy is in any event questionable.

The comparison becomes virtually invalid, however, when another circumstance is taken into account. The cyclical and other conditions of the economy, in terms of which optimal policy is defined, are those brought about, at least in