PANEL

DAVID MEISELMAN

Paul Samuelson believes that he was invited to this conference because he is a proper Bostonian. Perhaps I should point out that I believe the only two people on the program who were born in Boston proper—west of Dedham, at least—are Allan Meltzer and myself. This means the two of us are proper Bostonians by birth.

I am very pleased and honored to be on the first panel of the Nantucket Monetary Conference sponsored by the Federal Reserve Bank of Boston. As this conference begins, it seems to me that the Federal Reserve Bank and its President should be commended for initiating the conference and for bringing to it a wide range of participants who represent much of the best of serious and responsible concern for effective monetary policy. At the outset of the conference, I wish to make a plea that we bury old, and largely inappropriate hatchets, and remember that Barry Goldwater was really never a true believer in the Quantity Theory; that Milton Friedman may not have been a true believer in Barry Goldwater; and that Keynes, himself, remained essentially the Manchester Liberal student of Alfred Marshall, even after *The General Theory*.

In that spirit, I would like to start by mentioning several characteristics of monetary behavior we should keep in mind as the Conference proceeds. The characteristics in the colloquy are generally so well known that if our cataloging services were more efficient I could save everybody's time by merely stating arguments numbered 32 and 11 and hold in reserve reply number 6 to Jim Tobin's exception 17, while Allan Meltzer handled arguments 38 and 33, and saved number 15 as the clincher to reply to Paul Samuelson's old 77.

Association Between Changes in the Stock of Money and in the Price Level

To return to some of the characteristics, perhaps the first is that there is an impressive body of evidence of long standing, perhaps the most firmly established empirical association in all of economics, that there is an association between large-scale and rapid changes in

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the stock of money and changes in the price level. Indeed, every substantial and sustained inflation ever studied that has come to my attention has been associated with correspondingly substantial and sustained large-scale increases in the stock of money. Similarly, every important deflation ever studied has been associated with a fall in the stock of money, or, as in the case of the United States from 1869-1896, very little or no monetary growth to match the growth in output. Of course, this is to be expected when the demand for money is relatively stable and is specified in real terms. The real value of each unit of money, given the demand for money, is related to the total nominal quantity of money. In some respects, this is an extension of the very simplest economics. Because the stock of money generally tends to be under the control of the monetary authorities, it follows that the monetary authorities can control the nominal stock of money, but the real stock of money depends on the behavior of the public.

For shorter periods, it seems that the general configuration of business cycles is similar to the general configuration of monetary change. Periods of large-scale expansion in nominal GNP are related to a corresponding large-scale expansion in the stock of money which had taken place earlier, and similarly for a contraction in nominal GNP, especially when related to the rate of change of the stock of money. Second, the stock of money, especially when evaluated as changes in the rate of change of the stock of money, tends to lead business cycle turns. But the lead of money over income does not seem to be a dependable one in the sense that there is a simple or constant lead of money over business conditions. Different investigators report different leads of money over income ranging from three to six months to three to five years. The Federal Reserve Board-MIT model seems to yield one of the longest leads of money over income. Some work at the Federal Reserve Bank of St. Louis has reported close to the shortest lead. Milton Friedman's position on this matter would seem to make him a moderate in the lag controversy.

The Need for Control of the Stock of Money

In my view, monetary policy is, or should be, concerned with control of the stock of money—even though the stock of money, itself, may not be an explicit policy instrument, policy target, or policy indicator. Other things, such as interest rates, may be uppermost in the minds of the monetary authorities as targets or indicators of policy; but, as I see it, looking at interest rates, alone, is both an inefficient and self-defeating way to operate a stabilizing monetary policy. One of the reasons that it is inefficient is that interest rates are a very confusing indicator of monetary policy. Interest rates may also be a confusing target as well. Of course, traditional Keynesian analysis, which is very close to the traditional banker view, regards the rate of interest as responding inversely to changes in the quantity of money. In this general context, recall that prices in the Keynesian analysis are given; the marginal productivity of capital also tends to be given and fixed; and that, in effect, security prices or interest rates may change, but commodity prices and perhaps the price of labor as well are also given and fixed.

The rate of interest in the traditional Keynesian analysis is the real rate of interest because price level considerations, including expectations of changing prices, are essentially ruled out. Either prices are assumed constant or the role of price expectations in affecting the nominal rate of interest is held aside. As we have all come to realize, especially in the past few years, the nominal rate of interest seen in the market is composed of the real rate of interest plus some adjustment for the expected rate of change of prices. A large increase in the stock of money ultimately affects prices, which in turn have some feedback effects on nominal rates of interest. This seems to be true not only in recent years but, as I have examined the evidence, it holds for at least the last 100 years of United States financial history, and perhaps longer in England as well.[1]

In addition to the feedback between money and interest rates through the price level effect, a change in the stock of money can also affect the real rate of interest. If, by affecting aggregate demand, the change in the stock of money alters employment, then again, depending on well established elements of traditional economic analysis, the change in employment will tend to change the ratio of labor to capital in the short run, and thereby the marginal productivity of both labor and capital. Thus, for example, if there is a restrictive monetary policy which leads to unemployment, output becomes more capital-intensive, so that the marginal product of capital falls, as does the real rate of return. This is an element in the argument that Hicks' IS curve has a positive slope.[2]

[1]See David Meiselman, "Bond Yields and the Price Level: The Gibson Paradox Regained," in *Banking and Monetary Studies,* (1963)

[2]D. Meiselman, "Money, Factor Proportions, and the Real Cycle," presented at the Zurich meetings of the Econometric Society, 1964.

Because of these kinds of complex interactions and lags, we cannot take the marginal product of capital, or prices, or interest rates as datum. They all respond to changes in the stock of money with a very complex set of interactions and lags we know very little about. This is one of the reasons that many of us are led to focus on the stock of money as the best available indicator of monetary policy and to point to interest rates or credit market conditions as poor indicators of monetary policy. In addition, it seems to me that the stock of money can be controlled within rather narrow limits, and that this is a very important factor to consider in discussing public policy. Clearly, investment outlays cannot be controlled, and, in many respects, cannot be predicted very well. In principle, government expenditures and taxes could be controlled, but the experience of the past few years should remind us that Congress need not be sufficiently cooperative—or is the word passive?—to permit White House dictation of Federal Government expenditures and taxes, holding aside important questions about state and local government spending and taxing.

Need to Relinquish Interest Rate Regulation

It is important to realize that, if we do emphasize monetary policy, and, with it, controlling the stock of money as the principal instrument or indicator of monetary policy, there are certain things that we will have to give up. For example, it means that various attempts to peg or to moderate either one or a wide range of interest rates will have to go by the board. In that respect, much of the discussion about controlling the stock of money implies a need for collateral discussions regarding necessary changes in our financial structure and financial regulations. The problems posed by the savings and loans and a vast array of housing subsidies inherent in their regulation are but two of many items under this broad heading.

There is another parallel implication of focusing on the stock of money relating to balance of payments and exchange rate policy.

At breakfast this morning, Henry Wallich said that he would discuss the balance of payments, which means our discussions shall extend at least to three digit arguments 107, 104, and 102, and I look forward to those discussions as the conference proceeds.

I was very interested in some of the points that Paul Samuelson has just made regarding his definition of monetarism. I suppose that, if Milton Friedman didn't exist, we would have to invent somebody like him to give some anthropomorphic qualities to the caricature Paul has presented. Milton does assert that money is very important. As I understand it, in trying to explain short period economic change, he would tend to omit many other kinds of variables, especially the ones most traditional Keynesians emphasize.

However, I don't think we can thereby conclude that, because there is much doubt cast on the dependability of other factors in determining GNP, that nothing else ever matters. I would like to ask Paul, "If other things matter, first, what are the other things; second, how much do they matter; and third, how dependable are they?" With respect to the dependable effects of fiscal policy—and I emphasize the word dependable—at the very least I believe that the matter is very much up in the air. It seems to me that it is clear what the direction of effect on GNP would be if we have a substantial change, especially a permanent change, in income tax rates, but I think it is quite another matter to assign some specific numbers to those effects.

I have been doing some research in the past year and a half on this matter, some of which parallels the work Leonall Andersen has done at the Federal Reserve Bank of St. Louis, in which I have been trying to find some dependable statistical links between various commonly used expenditure and tax measures and measures of change in macro-aggregates. Thus far, I cannot find any of the associations traditional fiscal policy would lead us to expect. This is true whether I use the actual budget figures or whether I shift them to full employment values, whether I try different leads or lags, and so forth. My investigation isn't yet at the point where I would like to publish the results, but I can report that thus far the only results are negative ones.

May I add that I have been using quarterly data for as far back as the figures are available, something like a span of 20 years, and I have been examining the period as a whole as well as dividing the period into separate business cycles.

These and other negative results lead me to ask Paul what specific evidence he had in mind in his presentation. Please, Paul, can't I at least peek at one of those hills?