

Commentary on “The State of the Monetarist Debate”

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NOTE: The relevant passage from the Andersen paper appears in italics preceding each of Professor Klein's comments.

Leonall C. Andersen's account of the issues is stated so well that I was immediately drawn into a detailed reading of this fascinating material. Of course, since I stand on the “other side” of the debate, I felt compelled to take issue with specific points although I found the piece, as a whole, very attractive.

Econometric models continued to stress the interest rate channel and shied away from incorporating any influence of real money balances. For example, when simulations of the original Klein-Goldberger model of the late 1950s showed that the real balance effect swamped all other influences, the monetary sector was dropped from the model because such a result was deemed “unrealistic” and “implausible”. (p. 3, left col., 3rd para.)

It is true that Arthur Goldberger found that “money market effects swamped all other effects . . . in an implausible way” when he computed dynamic multipliers for the model. It is also the case that results that looked implausible in 1959 may not appear to be so today. This does not mean, however, that the monetary sector was dropped from the model, as Andersen asserts. It merely means that this sector was dropped for Goldberger's method of evaluation of dynamic multipliers from a linear approximation to the model. They were not otherwise dropped.

With today's technology for digital evaluation of multipliers, we do not make linear approximations. Also, we do not necessarily make *ceteris paribus*

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Leonall C. Andersen notes correctly that theoretical issues, policy problems, and research strategy have been closely related in recent controversies. This interrelation may be recognized by rearranging the issues covered by Andersen into four broad groups which summarize the central contentions of the controversies. An explicit restatement of the nature of the issues seems useful in order to remove irrelevant contentions or misconceptions concerning the propositions involved. My summary is guided by the four questions entered at the head of each section below.

(1) How Do Money and Fiscal Policy Influence Economic Activity?

The orthodox Keynesian view contends that all information bearing on the transmission of monetary impulses is contained in the slope properties of the IS-LM diagram. A Pigovian modification includes shifts in the IS curve associated with the real balance effect. The evolution of the neo-Keynesian views flattened the slope of the IS curve. Keynesian analysis thus gradually reassessed the influence of money and monetary policy.

These changes in the perspective concerning the relative strength of monetary impulses did not modify the comparative role of fiscal and monetary policy in a stabilization program. The primary role was still assigned to fiscal policy with monetary policy confined to a “passively permissive” role. This concept of

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calculations of dynamic multipliers. More often, we make *mutatis mutandis* evaluations of dynamic multipliers; that is, we compute deviations from an "equilibrium" (or "control" or "baseline") dynamic path. Along such a path reserves can grow in an accommodating fashion, and other exogenous variables can also change as they will. In a generalized approach to dynamic multiplier analysis, we would not necessarily find that monetary effects swamp all other effects.

Changes in the trend growth of money are considered the dominant, not the exclusive, determinant of the trend of nominal GNP and the price level. Long-run movements in output are little influenced by changes in the growth rate of money. Trend movements in output are essentially determined by the growth of such factors as the labor force, natural resources, capital stock, and technology. (p. 3, left col., 5th para.)

The claim here is that the trend growth of money is the dominant determinant of both nominal GNP and the price level. This is an imputation of remarkable power to money. If the economy is at full capacity or full employment real GNP and if it is asserted that money determines price level, then it is trivial to say that it also determines nominal GNP. If the economy is not necessarily at full equilibrium, then it is remarkable, indeed, that money is such a powerful variable that it is predominant in the determination of both nominal GNP and price level. I don't believe a word of it.

There is no doubt that money has been assigned a more prominent role in recent years, but not to the extent advocated by monetarists. Econometric model builders have begun to give greater recognition to money. For example, Lawrence Klein has reported that the Wharton model now has a real money balance effect and that now the model predicts better. Simulations of the MIT-FRB model, which had Franco Modigliani as one of the principal architects, demonstrate the long-run properties of money as stressed by monetarists; namely, changes in money, in the long run, influence mainly the price level. (p. 4, left col., 2nd para.)

It is true that econometric model builders are now giving greater recognition to money, but I don't think the right reasons are conveyed to the reader.

(i) It should be remembered that Tinbergen devoted a great deal of attention to the money market in trying to interpret the 1920s in his celebrated League of Nations study. In my own work, I have studied real balance effects since early model building efforts at the Cowles Commission in the late

1940s (*Economic Fluctuations in the United States, 1921-1941*). I took up the problem again in micro econometric studies of the Surveys of Consumer Finances (*Contributions of Survey Methods to Economics*) and introduced real balance effects in the original formulations of the Klein-Goldberger Model in the early 1950s. There is nothing unusual about the fact that such effects appear again in the new Wharton Model (Mark III). It is just a continuation of research started more than 25 years ago and quite unrelated to today's monetarist debate.

(ii) As early as 1960, when a planning committee was outlining work for the SSRC model project (later the Brookings Model), the executive allocated responsibility to Daniel Brill and associates of the Federal Reserve Board for the development of a monetary sector, on a par with all other sectors. We recognized the importance of monetary factors from the start, but not along the lines now pursued by the monetarist school.

(iii) The reason why more attention is now being paid to monetary aspects in econometric model construction is that present samples of data cover a richer experience that was not previously available. The wartime accumulation of liquid assets first stimulated our curiosity, but it was not until the mid-1950s that interest rates showed appreciable variance. The monetary crises of 1966 and 1969-70 again enriched our data experience. The whole history of macro-econometric model building has been one of expansion through system enlargements, inclusion of more detail, and direction of added attention to specific sectors. It is no surprise that increased attention to the monetary sector should be taken up now, especially as flow-of-funds data become more accessible. In a similar way, increasing attention is being paid to the international sector, as the United States has more trade and payments crises. Gradually, model builders will cover all sectors of contemporary interest.

Both the MIT-FRB model and the Data Resources model, which are built along post-Keynesian lines, have a zero Government spending multiplier with regard to real output. (p. 5, right col., 3rd para.)

Most American models, other than the St. Louis model, imply fiscal multipliers that rise fairly quickly to values between 2.0 and 3.0. They fluctuate in a narrow range for a number of years and then decline. This is brought out clearly in the analysis of the NBER/NSF Seminar on Model Comparison [G. Fromm and L. R. Klein, *American Economic*

Review (May 1973).] For the only period of policy relevance (before many other changes, besides the original fiscal policy change, have taken place) the fiscal multipliers are estimated to be substantial by a broad consensus. In a practical sense, for purposes of economic policy formulation, the latest results seem to cause no change in the standard analysis of the fiscal school.

Monetarists have developed mostly theoretical arguments in support of the "no trade-off" [inflation-unemployment] proposition. It is not denied that a short-run trade-off exists, but it is denied that such a trade-off exists in the long run. The crucial consideration involves the formation of price expectations, a variable generally neglected until recently in post-Keynesian analysis. (p. 6, left col., 3rd para.)

Surely, it is not right to say that the post-Keynesian analysis has neglected, until fairly recently, price expectations. A variable representing such expectations has always been in the theoretical and the associated econometric analyses. I would say that careful analysis of this variable has a thirty-five year history. In some cases price expectations were empirically represented by distributed lags of prices and in other cases by direct measurement in sample surveys. It is a difficult variable to measure properly, and the surrogates have not always been good, but it has never been neglected. One might criticize the simple approximations to anticipated prices that I used in *Economic Fluctuations*, but the recognition of the significance of expectations was quite explicit.

. . . when prices rise at a constant rate, and if the expected rate of price change is the same, the unemployment rate will be at its normal rate and will remain there until a shock occurs. This normal unemployment rate is determined by such factors as cost of labor market information, labor mobility, job discrimination, and laws and organizations which impede the free functioning of the labor market. (p. 6, left col., 4th para.)

The concept of a "normal unemployment rate" as it is used in modern macro-analysis does not seem to me to be very useful. To a large extent, it is used euphemistically to cover up real problems in achieving what is easily measurable as a broadly accepted statistical target of full employment at 4.0 percent. For my own tastes, I think that 4.0 percent is a pretty poor performance target for a modern industrial state and would prefer the range of 3.0-3.5 percent. In any event, I think that it would be unfortunate if the monetarist-fiscalist debate got locked into assumed agreement on the so-called "normal unemployment rate" as a target.

I now turn to the next issue — the dispute regarding the monetarist contention that the economy is inherently stable. Post-Keynesians contend otherwise. Samuelson has summarized a few factors which he believes affect money GNP even if money is held constant:

"(1) . . . any significant changes in thriftiness and the propensity to consume . . . (2) . . . an exogenous burst of investment opportunities or animal spirits . . ." (p. 7, left col., 4th para.)

I don't think that it is correct to say that Post-Keynesians contend that the economy is inherently unstable. They may contend that it is oscillatory or subject to fluctuations and that it has a tendency to move about a position of underemployment equilibrium, but this is far different from saying that the economy is unstable. The quotation cited from Paul Samuelson is one that I would commonly associate with a theory of the business cycle that he taught me three decades ago, with an ancestry related to Spiethoff, Tougan Baranovsky, Schumpetter, and Hansen. Their views can be superimposed on the Keynesian system, to derive a formally stable cyclical process.

Little empirical evidence has been produced in support of either view [degree of economic stability]. Post-Keynesians offer simulations of the response of their models to shocks, while the challengers appeal more to casual empiricism. (p. 7, right col., 1st para.)

The Wharton Model (*Econometric Models of Cyclical Behavior*) and the Klein-Goldberger Model ("The Dynamic Properties of the Klein-Goldberger Model," Adelman and Adelman; "On The Possibility of Another '29") have been shocked in many separate studies. A number of these have been published. They consider both once-and-for-all exogenous and repeated stochastic shocks. A persistent finding is that the models of the underlying dynamic economic system are quite stable. In the case of once-and-for-all shocks, there is a strong tendency for the system to return to a long-run growth path after a severely damped oscillatory movement. In the cases of stochastic shocks, a stable oscillatory movement occurs. A. L. Nagar's stochastic simulations of the Brookings Model (*The Brookings Model: Some Further Results*) appear also to be stable.

As in the case of several of the other issues in the debate, the central point of contention of the inherent stability issue appears to be a matter of timing. Several econometric models built along post-Keynesian lines show, by simulation experiments, that shocks are absorbed over a fairly long period of time and do not produce cycles. On the other hand, mone-

tarists postulate a shorter period for adjustment. (p. 7, right col., 3rd para.)

As noted in the preceding comment, simulations of econometric models built along post-Keynesian lines do show important business cycle characteristics. It is a strong claim on the part of such model builders that these systems are capable of generating the cycle, as it has been historically measured, when the models are subjected to repeated shocks in stochastic simulations. I regard this as a basic validation feature of contemporary econometric model building research, and this is an integral part of my challenge to the monetarists, to see whether they can do as well in reproducing accepted measures of cyclical characteristics from simulations of their models. I am disappointed in their not following this line of econometric research.

Let us now turn to the final issue — the appropriate time horizon for stabilization policy. Post-Keynesians, with their view that the economy is basically unstable, have advocated very active stabilization actions in the short run. (p. 7, right col., 4th para.)

At this point, I repeat earlier comments that post-Keynesians do not hold the “. . . view that the economy is basically unstable . . .”

(Section entitled “Present State of the Debate”, p. 8)

Andersen sums up the debate nicely in these concluding paragraphs. Without accepting his view about the workings of the economy, I find that I can accept his view of the issues and procedures for continuing research on resolving some of the main issues. Careful statistical study of the evidence following best econometric practice can probably do much to settle some of the debatable issues. It is extremely healthy and welcome to see the debate shift from speculative theorizing, casual empirical referencing, and unsupported asserting, to serious work in applied econometrics. We may not resolve matters, but we shall learn more about the crucial issues and know where each side stands. We shall probably find out what would be needed in order to convince both sides of the correctness or incorrectness of their positions.

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policy is a consequence of the Keynesian interpretation of the transmission mechanism which persists independently of the changes noted above. Apart from a more or less significant real balance effect, monetary impulses are conveyed in the usual Keynesian view by the play of interest rates on financial assets. Thus, the transmission of monetary impulses depends on the responses of the small proportion of expenditure categories with comparatively high borrowing costs. The Keynesian view therefore implies that applications of monetary policy burden a comparatively small sector with the task of swinging the whole economy in the desired direction. This means that this view of the transmission mechanism assigns substantial social costs to the use of monetary policy. In contrast, stabilization programs based on fiscal adjustments apparently impose lower social costs for similar social benefits.

It is commonly known that monetarist analysis rejects the assessment of monetary and fiscal policies offered by the Keynesian view. It is not commonly understood, however, that the conflicting views bearing on policy programs follow from a fundamental difference in the conceptions governing the substitu-

tion relations of money. Keynesians constrain the substitution to money and financial assets of a similar risk class. On the other hand, monetarists postulate that transactions dominating assets (that is, money) substitute in all directions over the whole array of other assets. This difference implies that monetarist analysis rejects the IS-LM framework as an adequate representation of monetary processes.

Also, monetarist analysis does not accept the idea that the slope properties of such diagrams contain all the relevant information pertaining to the transmission of monetary impulses. In contrast, the credit market, usually dismissed or disregarded in Keynesian analysis, emerges with an important function in monetarist analysis. It follows that the impact of monetary actions on interest rates cannot be interpreted simply as a “liquidity effect” resulting from the interaction between money demand and money stock.

Furthermore, the role of the government sector's budget position and its impact on the economy via asset markets are thus accessible to monetarist analysis, but not to Keynesian analysis. Also, the Keynesian distinction between the “direct effects” of fiscal pol-

icy and the "indirect effects" of monetary policy are recognizably conditioned by the peculiarities of the Keynesian transmission mechanism. Once the nature of the contending views is properly understood, we may hopefully move in our empirical research beyond Samuelson's attempt to force the issue into the Keynesian strait jacket by trying to reduce it to conflicting propositions about the interest elasticity of money.

(2) *Does the Economy Produce Self-sustaining Fluctuations of Major Magnitudes?*

Keynesians usually answer this question in the affirmative. The *General Theory* contains several passages emphasizing the tenuous nature of long-run expectations and the unreliable gyrations of the marginal efficiency of investment. On the other hand, monetarists stress the shock absorbing capacity of the market process and the load factors usually produced by an unstable government and policy process. It is noteworthy that some of the exemplifications offered in Keynes' work, in spite of the general passages mentioned, actually support the monetarist thesis.

The contentions swirling around the stability of the economic process certainly require substantial further examination. Keynesians usually postulate that interaction between economic and political processes stabilize and at least do not destabilize the economy. Monetarists, on the other side, argue that such interaction operates more frequently in a destabilizing and welfare-reducing direction. It should be noted that Keynesians offer little evidence supporting their views. It is particularly noteworthy that all econometric models cast in a Keynesian mold, and examined in detail thus far, imply the monetarist stability thesis and reject the Keynesian thesis of an unstable process generating self-sustaining fluctuations of substantial magnitudes. But the monetarist case is not yet firmly established and the issue will persist.

(3) *Apart From An Unstable Process, What Forces Produce Economic Fluctuations?*

Fiscalist Keynesians answer with a description of fiscal policy and stress the crucial significance of information about fiscal policy in order to appraise future economic trends. Others emphasize the role of a Wicksell-Keynes process and offer quotes about the autonomous operation of "animal spirits" affecting the anticipated real net yield on real capital. Monetarists, of course, stress the role of monetary impulses approximated by *relative* changes of some measure of

the money stock. These differences in the views about the driving impulse forces should not be misconstrued into absolute categories. They involve statements asserting the *comparative* dominance and persistence of specific impulses. Moreover, the monetarist thesis does not require termination of empirical research with a beautiful time series exhibiting accelerations and decelerations of the money stock. Some monetarists penetrated substantially "behind" this phenomenon to establish a link between a country's financial institutions and the nature of the policy process. It follows, therefore, that the question of exogeneity or endogeneity of the money stock attracts only a mild interest for the resolution of our major issues.

(4) *Do We Need the Allocative (Sectoral) Details For The Understanding of An Economy's Macro-Behavior?*

Many, but not necessarily all, Keynesians will answer affirmatively. On the other hand, monetarists emphasize the approximate separation of allocative and aggregative processes. They assert that *one* set of forces explains the position of relative price changes under a given distribution of such changes, and an essentially *different* set of forces explains the *position* of the *whole* distribution. They contend, therefore, that a detailed description of *which* relative price changes are located *where* under the distribution, yields no relevant information about the inflationary thrust of an economy. Some aggregative significance is, however, recognized for specific allocative patterns (currency ratio, time deposit ratio, investment ratio for the long-run resource effect but not for the short-run demand effect).

There remains a fundamental conflict on this issue which has molded substantial differences in research strategy. The producers of large scale econometric models are motivated by a denial of the monetarist thesis, and the latter implies a research strategy addressed to small models, partial hypotheses, and a gradual build-up of theories by combining relatively "simple" building blocks. Monetarists would also claim that they are less interested in technical sophistication *per se*, and assign more weight to economic content.

Concluding Observations

Keynesian analysis usually resolves the problem of interpreting monetary trends by relying on interest rates. This decision is justified by references to the central role of interest rates in the transmission mechanism of their models.

Monetarists claim, on the other hand, that Keynesians have adopted, without analytic reasons, the central bank tradition of gauging the tightness or ease of monetary policy by the level of, or movements in, market interest rates. The IS-LM diagram implies that changes in interest rates would serve as a reliable indicator of monetary events if the IS curve is rigidly fixed and money demand is stable (ignoring the effects of changing price expectations on interest rates). Monetarists, however, contend that in a world in which the IS curve is changing and perhaps money demand is shifting, interest rate movements do not give reliable signals as to the tightness or ease of monetary policy. Unfortunately, the nature of the interpretation problem does not seem to be well understood, and an ossified inheritance persists in the literature. On the other hand, some progress can be noted in the determination of suitable policies and policy procedures. Both analytic examinations and simulations of econometric models have opened avenues for exploration to resolve the issues of policy strategy

which should be acceptable to all parties in the controversy. The progress made in the analysis of the determination problem of monetary policy eventually may be matched by similar progress in the interpretation problem.

And so, where do we stand? Surely, the questions and positions have changed over the past twenty years. Beyond the noise of the ongoing debate, the gradual effect of searching examination was bound to modify subtly the views of Keynesians and monetarists. Moreover, the four major issues allow a variety of combinations. Some economists may reject the monetarist impulse hypothesis, but accept the monetarist view of the transmission mechanism. The evolution of such a spectrum with a "middleground" should enrich our future research activities. Such activities should yield substantive results over the years to the extent that economists successfully avoid the "media propensity" of equating all issues with ideological positions.

