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A NOTE ON POLICY ECONOMICS STUDIES AND
THE NEUTRALITY VIEW

by

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Policy Economics Studies and the Neutrality View

The primary goal of the policy economics studies in the Research Department is to make recommendations about the way to conduct monetary policy. Toward this end, the projects underway are basically of two kinds: theoretical and empirical work aimed at improving our knowledge of the way that monetary policy -- broadly conceived to include structural changes in the financial system -- impinges on the economy, and theoretical work on ways to find good policies given a model; that is, work on optimization techniques. Recently, mainly because of work by Robert E. Lucas [1,2], I have become convinced that the kind of model that can adequately describe the economy may be one that implies that monetary policy can have no predictable effect on real economic activity. Before I turn to describing some of the implications for our projects of giving serious consideration to that view, I will briefly review the hypotheses that underlie it and the reasons for taking it seriously.

The Neutrality View

What I and others call the neutrality view rests on two hypotheses: (i) to the extent that real aggregate supply depends on nominal variables -- e.g., the price level -- it depends on discrepancies between actual values of those variables and people's subjective forecasts of them; (ii) people form those forecasts rationally, and, in particular, do not persevere in systematically biased ways of forecasting and do not ignore the role of policy when forming forecasts. The second hypothesis implies that the discrepancies which determine real aggregate supply cannot depend on information available to the public -- e.g., past price

levels and unemployment rates. Since this same information is used to determine policy and since people are continually guessing at how policy depends on it, the implication is that policy can have no predictable effect upon the signs of such discrepancies, and, hence, no predictable effect upon the direction of real economic activity.

There are several arguments that favor hypotheses (i) and (ii). First, they rest on optimizing theories of the behavior of individual units in the economy; second, they can account for the Phillips Curve relationship -- the observed correlation between the level of employment and the rate of change of the price level, a fact which without these hypotheses stands as a paradox; and, finally, they have survived a number of direct tests. For these reasons, the neutrality view should be given serious consideration.

Implications for the Study of Optimization Techniques

Acceptance of hypotheses (i) and (ii) alters the nature of the task of finding good policies. I can partially indicate why by way of an example. Suppose the criterion function depends on the means and variances of both real output and the price level in each of several periods, a function that many would accept as adequately representing the Fed's stabilization goals. Then, if the economic structure is described by a linear, known coefficient model that includes hypotheses (i) and (ii) and if the information on which the monetary authority must base its action is the same as that available to the public for forming its forecasts, then the best rule is deterministic (as opposed to random), the (entire) distribution of real output is independent of which deterministic rule is adopted, and the best rule is that which equates the expected value of the price level in each period to the target value for that period.

In effect, in this example, hypotheses (i) and (ii) convert a one instrument-two goal problem into a one instrument-one goal problem. Thus, for known coefficient, linear models, hypotheses (i) and (ii) simplify the task of finding a good policy rule. For other kinds of models this may not be the case. Indeed, it seems much more difficult to deal with parameter uncertainty in the presence of hypothesis (ii) than under the assumption that people forecast in some fixed ad hoc way.

As these remarks suggest, perhaps the first order of business is a general investigation of the nature of the control problem in models that invoke hypotheses (i) and (ii). This is the task that Thomas Muench and I will take up in a paper we shall present at the December 1973 AEA meetings. The paper, an expository piece, is entitled, "On Finding a Good Stabilization Policy: Models and Methods." We hope it will, among other things, suggest the kinds of investigations we should pursue under this topic.

The major immediate implication of giving serious consideration to the neutrality view is that we abandon at least for now the plans for finding good rules for versions of the log-linear models that do not invoke hypotheses (i) and (ii).

Implications for Empirical and Theoretical Work on the Economic Structure

Serious consideration of the neutrality view does not imply any drastic change in the projects underway that fit under this heading. With regard to testing hypotheses (i) and (ii), estimation of a model of the economy invoking versions of those hypotheses had been planned for under project 273 and is under way. We do, though, plan to devote more attention to this project than had been planned for.

As regards other projects directed toward studying the economic structure, the rationale for them remains what it was. Even if the neutrality view is accepted, projects aimed at improving our understanding of the workings of the real side of the economy are still of value, as are projects that focus on the financial structure. Indeed, according to the neutrality view, making the price level predictable becomes one of the main goals of policy. The degree to which a given Fed policy translates into a predictable price level depends in part on the regulations imposed on financial institutions.

While the gist of the above remarks is that most of our research program can survive acceptance of the neutrality view, I would be remiss if I did not point out what I consider some of the broader implications of that view.

Macroeconomic models can be distinguished from microeconomic models in that they include relationships not explicitly derived from individual optimization. Because of that feature of macroeconomic models, Pareto optimality as a welfare criterion cannot be applied to such models. Increasingly, though, I think we shall find that we can develop microeconomic models that are fruitful for explaining macroeconomic phenomena. That, in turn, will allow us to apply standard welfare economics based on the criterion of Pareto optimality to the problem of finding a good stabilization policy. The models that lie behind the neutrality view are important in this respect, because they are the first models capable of explaining fluctuations in aggregate real economic activity and amenable to standard welfare economics.

References

1. Robert E. Lucas, "Expectations and the Neutrality of Money," <u>Journal of Economic Theory</u>, V. 4 (1972), pp. 103-124.

2. _____ and Edward C. Prescott, "Equilibrium Search and Unemployment," unpublished manuscript, November 1972.