Introduction

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A Prescription for Monetary Policy contains the proceedings from a series of seminars conducted by the research department of the Federal Reserve Bank of Minneapolis in the second half of 1975. The seminars addressed the question, How should the Federal Open Market Committee (FOMC) make monetary policy?

The need to carefully reexamine this question gained in urgency as the economic distress story of the mid-1970s unfolded. In recognition of the unsatisfactory state of the economy, a major Federal Reserve System research program was launched under the auspices of the FOMC's Committee on the Directive. The study's objective was to produce for the FOMC's consideration a set of recommendations on how to improve the execution of monetary stabilization policy. The seminar series held at the Minneapolis Bank aimed in part at generating input to the System study and in part at providing our Bank's president, Bruce K. MacLaury, with background for judging the reasonableness of the study's recommendations.

We made no pretense of having a definitive answer to how policy should be made. Such an answer would require the existence of a satisfactory theory of money, inflation, and the business cycle — something from which the present state-of-the-art in economics is some distance away. It was not acceptable, however, to conclude our seminars by saying, "Wait until we learn more," because policy must be made from day to day whether by design or by default. We strove instead to arrive at a policy prescription based upon our reading of current empirical evidence and upon our judgment regarding the types of policy implications which we believe will follow from a macroeconomic theory not yet fully worked out.

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The proceedings from our seminars in a sense provide a summary and review of monetary theory research conducted at this Bank. Rather than attempting to produce new knowledge, our seminars concentrated on surveying and synthesizing the Bank's research findings (references are listed at the end of this introduction).

Papers presented at the seminars dealt primarily with two aspects of the policy-making question:

— What is a useful and logical framework in which to analyze policy-making issues?
— Which economic "model" should form the basis for policy decisions?

The first three papers in this volume deal primarily with the framework question. In the first of these, "Stabilization Policy: A Framework for Analysis," Arthur Rolnick describes and defends an almost universally accepted policy-making framework. That framework consists of three elements: an objective function, a model, and an optimal policy which is simply a set of actions to maximize the objective function subject to the model. Rolnick derives general implications for policy making from simple models and simple objective functions and summarizes some productive uses which have been made of the policy-making framework.

In the second paper, "The Policy Procedure of the FOMC: A Critique," by John Kareken and Preston Miller, an application of the policy framework is made to examine the consistency of the FOMC policy procedure. That procedure is found to be somewhat defensible only when there is no uncertainty about the coefficients of the model, but even in this case it is possible to identify areas where the policy-making process can be improved.

In the third paper, "On the Theory of Stabilization Policy," Miller resurrects the Wallace-Muench criticisms[†] on the usual way the policy-making framework is applied and summarizes their suggestions for an alternative approach. It is argued that objective functions in standard applications tend to be *ad hoc* and at variance with general tenets of welfare theory. Models used for policy making, meanwhile, are seen to be *ad hoc* and at variance with the data. A microeconomic general equilibrium approach is proposed to overcome these difficulties.

Miller goes on to argue that because of the deficiencies in the current state-of-the-art, the policy authority is forced to interject a great deal of judgment into the policy-making process. The policy authority's judgment is equated here with a conditional probability distribution over competing models of the economy, where the conditioning set contains theoretical and empirical evidence relating to the actual structure of the economy. Economists can then play a role by constructing and presenting such evidence to the policy authority. Given this interpretation of the roles of

[†]See list of research papers on page 4, A.4.

economists and the policy authority, the stage is set for the papers that follow.

The remaining papers contain arguments and evidence to serve as a basis for choosing among alternative economic models. The first of these, "The Rational Expectations Challenge to Policy Activism," by Preston Miller, Clarence Nelson, and Thomas Supel, briefly describes the two major schools of thought on monetary stabilization policy. Economists subscribing to the first school, labeled "policy activists," include such diverse breeds as Keynesians, monetarists, and control theorists, who are bound together in the belief that monetary policy can have a systematic effect on the real economy. After summarizing the beliefs of policy activists, the paper presents the views of rational expectations theorists. Proponents of this opposing school of thought contend that monetary policy has no systematic effect on the real economy. The views of rational expectations theorists were summarized and illustrated in the context of a simple macro model in Sargent-Wallace.† That model is reproduced in the Miller, Nelson, and Supel paper, and the authors then proceed to categorize the types of criticisms policy activists have leveled at that model.

In the next two papers Thomas Sargent and Neil Wallace respond to their critics.‡ In "Testing for Neutrality and Rationality," Sargent describes increasingly sophisticated empirical tests of the natural rate and rational expectations hypotheses and concludes that the data do not support an out-of-hand rejection. In "Microeconomic Theories of Macroeconomic Phenomena and Their Implications for Monetary Policy," Wallace builds a case for the natural rate-rationality theory by showing that its key elements conform to accepted economic theory and that it offers at least a potential explanation of most cyclical phenomena. Wallace concludes his paper by recommending that the FOMC adopt a policy of stabilizing an aggregate price index around some preannounced path.

In the epilogue Miller asserts that there are currently no serious rivals to the natural rate-rational expectations model. He suggests that a useful way to proceed in research is to extend rational expectations models to incorporate monetary exchange. This task is posed as a challenge to the rest of the economics profession.

A partial list of papers in monetary theory by the research department of the Federal Reserve Bank of Minneapolis follows.

†See list of research papers on page 4, B.5.

‡These papers are also published separately. See list of research papers on page 4, B.6.

Selected References: Papers on Monetary Policy

Federal Reserve Bank of Minneapolis

A. Theory of Monetary Stabilization Policy

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4. Muench, Thomas J., and Neil Wallace. "On Stabilization Policy: Goals and Models." *American Economic Review* Vol. 64, No. 2 (May 1974): 330-37.
5. Rolnick, Arthur J. "Evaluating the Effectiveness of Monetary Reforms." *Journal of Monetary Economics* Vol. 2, No. 3 (July 1976): 271-96.
6. Sargent, Thomas J., and Neil Wallace. "'Rational' Expectations, the Optimal Monetary Instrument, and the Optimal Money Supply Rule." *Journal of Political Economy* Vol. 83, No. 2 (April 1975): 241-54.

B. Macroeconomic Theory

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2. Sargent, Thomas J., and Neil Wallace. "Market Transaction Costs, Asset Demand Functions and the Relative Potency of Monetary and Fiscal Policy." *Journal of Money, Credit, and Banking* Vol. 3, No. 2, Part 2 (May 1971): 469-505.
3. ______. "Rational Expectations and the Dynamics of Hyperinflation," *International Economic Review* Vol. 14, No. 2 (June 1973): 328-50.
4. ______. "The Stability of Models of Money and Growth with Perfect Foresight," *Econometrics* Vol. 41, No. 6 (November 1973): 1043-48.
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C. Econometric Theory and Applications

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Michigan Quarterly Models." *Annals of Economic and Social Measurement* Vol. 3, No. 3 (July 1974): 491-519.

2. Sargent, Thomas. J. "A Classical Macroeconomic Model for the United States." *Journal of Political Economy* Vol. 84, No. 2 (April 1976): 207-37.
3. ______. "The Observational Equivalence of Natural and Unnatural Rate Theories of Macroeconomics," *Journal of Political Economy* forthcoming.
4. Sargent, Thomas J., and Christopher A. Sims. "Evidence Without Pretending to Have a Theory." In *Proceedings from Business Cycle Conference.* Federal Reserve Bank of Minneapolis, forthcoming.

D. Microeconomics

1. Miller, Preston J. "A Compound Note: Or a Note on Harry Johnson's Note on the Transactions Demand for Money." *Journal of Monetary Economics* Vol. 2, No. 1 (January 1976): 113-20.
2. ______. "The Transactions Demand for Money in a Three-Asset Economy." *International Economic Review* forthcoming.
3. Sargent, Thomas J. "Observations on Improper Methods of Simulating and Teaching Friedman's Time Series Consumption Model." *International Economic Review* forthcoming.
4. Wallace, Neil. "Can There Be a General Equilibrium Liquidity Preference Demand for Money?" In Discussion Paper #74-51. Minneapolis: University of Minnesota, December 1974.