

gregate level, is realized. The richness of the evidence drawn upon in modeling firm behavior in MOSES is impressive and represents a giant step toward achievement of objectives which many of us share. A corresponding richness of microlevel evidence needs to be brought to bear in the modeling of household behavior. I also believe that much more work must be done on the sources and uses of funds, before models such as MOSES will be suitable instruments for analysing policies intended to deal with inflation in apparently slack economies. This effort needs also to explore the investments of business in natural resources and location rights that lead to upward price movements and speculation.

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Shmuel Nitzan and Jacob Paroush, *Collective Decision Making: An Economic Outlook* (Cambridge University Press, London and New York, 1985) pp. 132, \$29.95.

Nitzan and Paroush, although they do not use this language, can be thought of as seeking to resuscitate the viability of a notion of a common good which decision makers ought to pursue. They do so by positing a common objective function, and by assuming that evaluations of the values of choices with respect to this function are estimated by voters subject to error. In this framework, voters are posited to differ in their decisional competences, i.e., in their ability to correctly judge which of two choices is, in fact, higher on the given objective function. This approach, originating with Condorcet (1785) and carried on by Poisson (1837), was lost sight of for over a century until rediscovered by Black (1958). It may be contrasted with the usual Arrowian social choice approach in which collective choice is based on some rule for amalgamating diverse individual preferences. In the Arrowian approach preferences are taken as given and voters are not subject to error in judging what is in their interest.

*Collective Decision Making* integrates and extends a body of work which has appeared previously in some dozen or so journal articles in the 1980s. It represents a major contribution to a nascent subfield of social choice which elsewhere I have labeled 'information pooling and group decision making' [see introduction to Grofman and Owen (1986)]. The central question of the book is the design of optimal decision procedures - procedures which maximize the likelihood that the choice will in fact be highest with respect to the collectively shared objective function. Nitzan and Paroush begin with a very simple model of voter choice under majority rule and then successively relax the assumptions of that model to permit complexities such as a priori

The M-M model is explicit in its treatment of long-term capacity growth, the short-term supply decisions of individual firms, and the dynamics of labor, product and money market processes. The model, as it has developed, is a dynamic economic process model which reflects appropriately the old Stockholm School ideas. I welcome the fact that the model economy is fashioned more in the mode of the thinking of Joseph Schumpeter than of the mainstream of postwar micro- and macroeconomics with its strong attachment to equilibrium analysis. I also appreciate the fact that the M-M micro to macro model has incorporated the Leontief input-output analysis. The model also uses the Stone-type aggregate demand systems, although it is somewhat anomalous that, so far, most of the demand side is treated in a fairly traditional macro fashion. The modeling of firms follows a rules-of-behavior approach and incorporates extensive search behavior, since management is assumed to know only a restricted domain of even its own in-house structure and response patterns. Firms are not represented as optimizing in the short run, but rather as searching for improved ex ante profit positions. Individual firms are always on their way toward individual moving targets which they rarely reach. Considerable slack always exists within and between firms.

There are four genealogical links identified in the development of the M-M model: to an exogenous innovative function in the production system identified with Joseph Schumpeter; to market coordination as represented by the invisible hand of Adam Smith; to an avoidance of static coordination as developed from Smith via Walras to so-called 'modern' comparative equilibrium theory; and to a reinterpretation of Wicksell's cumulative process in a micro setting as a way of entering dynamics into the Walrasian system, making the speed of such endogenous market adjustments a central analytical and empirical focus. By keeping market agents in persistent search for improved positions, a dynamic disequilibrium market process is obtained.

Notwithstanding the absence of an index and some minor drawbacks, stemming from discontinuity resulting from the writing of the book over a period of time, this book merits a careful reading by a broad audience, which surely includes those interested in the understanding and modeling of firm behavior. Furthermore, all modelers of national economies will find much here worthy of their attention, as will those interested in methodological questions of research strategy. Those familiar with Eliasson's ebullient and highly attractive approach to economic research and theory development will be pleased to see it reflected in this, his latest book. Even those who have problems with Eliasson's rather free-wheeling approach should find this book stimulating and thought provoking.

Impressive as the research effort associated with Eliasson has been, it is evident that much remains to be achieved before the dream of combining research results, gleaned at the microlevel, into a powerful system that is useful for prediction, control, experimentation and analyses, on the ag-

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Nitzan and Paroush present the result of an extensive simulation on optimal size of majority as a function of variables such as size of the decision-making body, skill levels of the decision makers, the a priori bias in favor of the status quo, and the ratio between Type I and Type II benefits. Results of simulation suggest that, even for small groups, the most competent member of the group is less likely to make the best choice than is the group majority.

Since I am myself a contributor to the recent rediscovery and elaboration of the Condorcetian judgmental competence approach to social choice, it is not surprising that I am extremely sympathetic to Nitzan and Paroush's orientation to collective decision making. But this book not only starts off with a good idea, it also does an excellent job in developing that idea into a rich body of findings and into usable and practical advice to decision makers.

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