BOOK REVIEWS

Macroeconomics: Measurement, Theory and Policy, Michael C. Lovell. New York: John Wiley and Sons, Inc., 1975, pp. xvii, 541. $US14.95.

Lovell's contribution to the macroeconomic text market is an attempt to place the continuing debate on the efficacy of the Keynesian, Neoclassical and Monetarist viewpoints of national economic behaviour into a modern, applied context. Emphasis is placed on the data requirements, the statistical technology and the empirical results of testing these theories as well as on the exposition of the theories themselves.

In the preface, Lovell does not state explicitly the market at which his book is aimed, but he does suggest that it ". . . provides an appropriate compromise between oversimplification of the material and intimidation of the reader". In an academic sense, upper undergraduate and graduate levels would probably gain the most from the text.

Following a brief but excellent introduction on the politics and methodology of macroeconomics, the book is divided into five major sections. Part I is entitled "Unemployment and the Elementary Theory of Income Determination" and includes three chapters on the unemployment gap, elementary multiplier theory, and consumption. The material in this part is extremely simple; for example, only the level of output is analysed, with government expenditure and investment fixed, and monetary policy, price movements and balance of payments considerations ignored. Lovell does claim to use Koopmans' strategy of viewing economics as a sequence of models, and justifies these simple beginnings as providing building blocks for more general models of increasing validity and applicability.

Part II deals with "Money and the Price of Economic Activity". There are six chapters which analyse the role of money, investment and the role of interest, the I-S schedule, monetary policy and GNP, balance of payments equilibrium and full employment, and a broad concluding discussion on monetary policy in a banking context. The argument in this section of the book begins from a crude quantity theory standpoint but evolves into a synthesis of the key concepts of multiplier analysis and the quantity theory.

The third part is called "Monetary Policy and the Price Level" and in its three chapters inflation is subject to some intensive analysis. Particular emphasis is paid to defining and measuring inflation, to the effects of shifts in aggregate supply and demand, and to the dynamic aspects of inflation as typified in the Phillips curve literature.

"The Business Cycle and Economic Forecasting" is the subject of part IV. Here four chapters deal with an overview of the business cycle, the simple dynamics of the business cycle, or "portfolio" of cycle models, and macroeconometric models.

The two chapters of the final section examine "Growth and Technological Change". Attention is focused on the characteristics of the growth process and growth under full employment, with special emphasis on population problems.

Throughout the text the exposition is clear and relatively concise and key concepts are expanded upon graphically and by the use of real-world examples. References are given where appropriate and the mathematics in the text is not too disarming. Each chapter concludes with a list of relevant references, key concepts, and exercises. In addition there is some very good material appended to various chapters—for example, in part I there is a guide to sources of economic data, a discussion of measurement errors, an analysis of multisector multipliers and a discussion of consumption function estimation. Part IV contains analysis of linear and stochastic difference equations and optimal linear decision rules. These appendices are intended for the more mathematically inclined reader and present quite a neat bridging between the discussion in the text and appropriate journal articles.

At most stages in the book, Lovell attempts to relate the various theories at his disposal to empirical results and to the data and methodological problems inherent in hypothesis testing in macroeconomics. Additionally there is a complete chapter devoted to the structure and performance of the FRB-MIT model of the U.S. economy. This approach is to be applauded as far too often students are left out in the theoretical cold with little idea of the applicability of different theories in real-world contexts. Of course the book does have its drawbacks. There are many topics omitted or glossed over which fill complete volumes elsewhere. As one example, much of the recent, questioning literature on the empirical foundations of the Phillips curve has been ignored. However, 550-odd pages is still not a bad effort and I regard Lovell's book as a worthwhile source for any agricultural economists interested in brushing up on their macro theory.

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Study of Agricultural Systems, G. E. Dalton (Ed.). London: Applied Science Publishers, 1975, pp. xiv, 441. $US30.00.

This book reports the proceedings of a symposium held at the University of Reading in 1974.

> "The main objectives of the symposium were to explore the possible ways of studying whole agricultural systems, with special reference to systems methodology but not excluding any other approaches. It was also intended to define the role of bio-economic models in both agricultural research and practice and to chart the areas in which biologists and economists can most usefully collaborate."

After an introductory paper by Spedding, there are twelve papers organized into three parts.

Part 1, headed "Systems Methodology", is comprised of four papers and a discussion report. The four papers are, "Agricultural Systems Models and Modelling: An Overview" by Van Dyne and Abramsky; "The Application of Systems Theory in Agriculture" by Dent; "The Problem of Finding an Optimum Solution" by Arnold and Bennett; and, "Constraints and Limitations of Data Sources for Systems Models" by Jeffers. In total, part 1 reads like something of a hybrid between a textbook and a literature review that is interspersed with an occasional summary of a piece of research. Much of what is said is basic and important, but unlikely to be new to the experienced user of a systems approach.

Part 2, the "Application of a Systems Approach in Practice", is comprised of five papers. The first three papers outline systems analyses being undertaken by respective authors.

Conway *et al.*, discuss some incomplete work on a systems approach to the control of the sugar cane froghopper.

Charlton and Street, in a paper titled the "Practical Application of Bio-economic Models", discuss two models prepared separately by each author. They argue the theme of developing models which are simple and practical, and which have an end use in extension and farmer application; this theme is in contrast to one of developing complex models to mirror "reality" for the purpose of developing a better knowledge of "reality". What is a simple model and what is a complex model is a distinction that did not receive elaboration.

Donaldson reports on a simulation study of mechanized cereal growing with particular reference to sowing and harvesting operations.

The fourth paper, by Thompson, on the "Economic Analysis of Farms", outlines some features of the CANFARM data system. One feature of this paper is a table of predicted benefit:cost ratios and rates of return for some CANFARM management advisory services; for the services listed, the benefit:cost ratios range from 1.5:1 to 7.6:1.

In the final paper in part 2, Egbert and Estacio describe an application of mathematical programming to regional agricultural planning in Portugal. As a number of other authors in this book, they make the point that time and other resources impose limits to model development. As a consequence of their experience, they conclude that such regional planning studies "be undertaken only by countries that have a well-staffed planning group, serious intentions and a good data base. Even so, simpler alternatives should be considered . . ."

The third part, "Applications of a Systems Approach to Research", is very much an anticlimax.

The first paper, by Innis, on "The Use of a Systems Approach in Biological Research" would be better located in part 1. However, what he does have to say leads him to the conclusion, ". . . the system approach will probably revolutionize biological research in the next few decades . . ."

The paper by Eadie and Maxwell, "Systems Research in Hill Sheep Farming", would be in its right place in part 2. It is an easily readable description of a seemingly practical systems approach to research on a farming problem.

The final paper is by Allen on "Systems Analysis in Relation to Agricultural Policy and Marketing". It seems to revolve around the viewpoint that "the thought processes of economics are conceptually very close to those of systems analysis". It concludes by expressing a concern for what may be "two clearly established dangers in the present emphasis on attaining quantitative perfection in what amounts to economic systems analysis, namely (a) tunnel vision, and (b) a disinclination to consider those critical considerations which cannot be readily quantified and fitted into the model".

Overall, the book does (the symposium did) explore possible ways of studying agricultural systems. However, there is little written evidence to suggest that the objective of charting areas of collaboration between economists and biologists was achieved.

The papers, as a book, contain considerable repetition. Not the least significant of these is the number of shorter or longer discourses on a systems approach.

A number of papers express concern about the suitability and availability of data. Certainly some of the views expressed would support the devil's advocate stand taken by Jeffers who argued "the thesis that the present emphasis on the compilation and construction of general-purpose data banks in environmental research is based on a misconception of the necessary processes of scientific research."

Another common remark was on the need for systems analyses to be more practical, to be geared to decision-making rather than knowledge discovery *per se*, and for models to be simpler.

Relative to the symposium objectives which referred only to biologists and economists, it is interesting to observe the number of authors who referred to the need for psychologists and sociologists to be also included in the team of specialists undertaking studies of agricultural systems.

In conclusion, the book is recommended for purchase only by those who are significantly involved in the development and application of systems models; to them it will be a useful reference. Because of its value as a reference, it will be a useful addition to research libraries. For those in need of a basic text on the systems approach or on systems methodology there are better books available.

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Conference Reports: Agriculture, Food and Biology.

London: Applied Science Publishers, Vol. 1 (1) 1977, quarterly, index (soft cover). $US36 p.a.

Conference Reports is a new journal, to be published quarterly, covering four general subject areas of physical and chemical sciences, engineering, agriculture and biology, and medicine. Each area is produced as a separate volume. Its sole concern is the reporting of scientific conferences throughout the world. It is an information source, rather than a reference, as conferences are reported only briefly. Each entry lists the details and origins of the conference, a summarised account of the proceedings, followed by a useful and complete listing of titles and authors for all papers presented. Details of any published material available are given, as are addresses for further enquiries about the conference. A very useful feature of each volume is a comprehensive index. Because of its very nature, interest in subscription to the journal will largely be limited to libraries and research institutions.

While the concept of some formal listing of conference output is excellent, the subject matter which the volume under review attempts to cover is extremely wide. Of the fifteen conferences reported in the first issue, only three have any direct economic content (European Ministerial Conference on the Environment, Managing Saline Water for Irrigation, People and Food Tomorrow). Others range from the Congress of the International Primatological Society, to Production of Potted Plants.

No information is presented as to criteria for selection of conferences for inclusion, apart from a general invitation to conference secretaries or organizers to submit reports of completed conferences. The degree to which the publishers can ensure future coverage of the more important conferences within each subject discipline, will to a large extent determine the future success of this new journal.

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How to Write Reports, John Mitchell. Glasgow: Collins, 1974, pp. 160. $A1.50.

Mitchell's book is a good basic text on the production of technical reports. His background is in communication in industry and this is reflected in the type of report he discusses. He defines a "technical" report as ". . . a written statement of the facts of a situation, project, process or test; how these facts were ascertained; their significance; the conclusions that have been drawn from them; the recommendations that are being made".

One of Mitchell's suggestions to his readers is that they should know their audience before attempting to communicate with them. Too often the technician is well trained in his own discipline but has received little training in the communication of the results of his work to others. With this in mind Mitchell goes right back to telling the reader where to find information.

Mitchell looks at communication in business and technical fields. He does not look in as much detail at such things as footnoting methods or use of bibliographies, as one would expect in a book on writing in the humanities. He does however give some very apt advice on such things as language and punctuation based on his experience of the usual shortcomings of technical report writers. The book contains some excellent practical advice, with good use of explanatory diagrams, on such considerations as presentation of illustrations and tabular matter. It gives the reader an overview of the whole process of production of the final document.

The book contains sound advice on the construction and use of standard forms and check lists. It covers a wide range of report types: "Laboratory Reports", "Tests and Technical Investigations", "Management Reports", "Reports on People" and "Reports on Meetings".

Mitchell has produced an easily read basic text for the beginner and a handy *aide-memoirs* for inclusion on the library shelf of the more experienced report writer.

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