BOOK REVIEWS

Economic Planning or Revolution, Peter Harsany. Montreal: Academic Publishing Co., 1972. Pp. 114. No index. No price.

Economic planning has become a relatively respectable discipline since the 1930's. Its acceptance has been partly due to the problems of breakdowns in "unplanned" market economies. Harsany's stated aims in his monograph are to discuss the "enormous advantages in economic planning and (the) perilous consequences of *laissez faire* policies in the non-planned economies".

Although economic planning has attained a measure of respectability, it is regrettable that the fringes of the discipline as represented by this monograph are still rather ragged. To be confronted with the following unproved mathematical postulation of the importance of planning

$$\text{output} = (\text{inputs} + \text{implementation})^{\text{planning}} - \text{resistance to production}$$

is hardly likely to convert the heretics. Neither is the fact that economic planning occurs in the U.S.S.R. and Eastern Europe (with or without inflation and unemployment) a satisfactory demonstration that planning is desirable. Indeed, Harsany's failure to recognize that *laissez faire* market economies require a high degree of planning, leads him into setting up a false dichotomy between centrally-directed planning, and *laissez faire* free enterprise which has a high degree of decentralized planning.

In his section on the theory of economic planning, Harsany extolls the benefits, but ignores the costs, of centrally-directed planning. He recognizes that market economies frequently over- or underproduce. But he fails to note that, even if the determination of demand for the society by planners means that over- or underproduction cannot occur, over- or underproduction may exist in terms of the underlying demands of the society.

As an example of the type of planning that should occur, Harsany details his plans to A.D. 2030 for world food production. The plan presented typifies the problems of Harsany's approach to planning. Even if his objectives are socially desirable (and he provides no evidence that they are) the objectives are nothing without the important plans concerned with how objectives are to be realized.

An apt comment on Harsany's book is curiously contained within it. It is from a quotation by Myrdal—"It must be remembered that national plans and policies have actually done very little to raise the standards of living of the masses".

Economic Planning or Revolution is not recommended. Apart from the poor editing, the muddled and sometimes irrational arguments suggest that there must be better books on the subject.

DAVID GODDEN

Agricultural Research Centre, Wollongbar

Econometric Model Building: A Comparative Study of Simultaneous Equation Systems, Young Sik Jang. Seoul, Korea: Yonsei University Press, 1973. Pp. 170. No price given.

This book is a comparison of two opposing approaches to the formulation of structural econometric models—the interdependent system of simultaneous equations developed by Haavelmo and the Cowles Commission (referred to in the book as the ID-system), and the causal chain or recursive system of simultaneous equations attributed to Tinbergen, Wold and other Swedish writers (the CC-system).

Following a brief introduction, chapter 2 reviews the historical context of the debate between the two opposing views. That ordinary least squares is generally inappropriate when there are two or more dependent variables is mentioned, as is the development of the two theories proposed to overcome this problem.

Chapters 3 and 4 examine the ID-system and the CC-system in more detail, emphasising the theoretical assumptions underlying each. The static, instantaneous equilibrium assumptions of the interdependence models are contrasted to the dynamic, disequilibrium foundations of the recursive models.

In chapter 5 an attempt is made to integrate the best features of both approaches into one all-embracing, general purpose methodology—the causalized interdependent system (CCID-system). This hybrid system has two alternative formulations which depend on the dominance of one or the other bases; the bicausal chain and the circular chain.

Chapter 6 evaluates each of the alternative models by means of an empirical case study of the demand, supply and price relationships of the U.S. tin can industry, and chapter 7 concludes the book by summarizing the theoretical arguments and the empirical results.

According to Jang, the aim of his study was to ". . . compare the theoretical and operational rationale of the two systems in order to establish future guidance in the practical application of dynamic structural model-building". In effect, however, the book is a systematic critique of the ID-system and its assumptions, and an equally systematic endorsement of the virtues of the CC-system. The ID-system is criticized in particular for its static equilibrium assumptions and its consequent foundation in mutual interdependency. The CC-system is exalted for being dynamic and for employing causality and disequilibrium assumptions.

The arguments presented for CC-type approaches are in general concise and appealing and in many cases the CC-system is developed as a legitimate alternative to the ID-system. The ". . . superiority of the theoretically rigorous CC-system over the dilemma inherent ID-system . . ." does not eventuate in practice though. In fact, Jang concludes his empirical study "In retrospect, all three systems performed well in conformance with the well-known market mechanism". It would seem that perhaps the theoretical sophistication achieved by the CC-system is not worth the extra effort.

What does the book offer? The treatment of the historical background to the simultaneous equation bias debate is particularly interesting, and the comparison of the two resultant approaches to the problem is systematic and rigorous. The referencing is thorough and extensive but like the bibliography is limited to material of pre-1970 vintage. Diagrams are neat and intelligible and there is not an over-reliance on mathematical exposition.

On the debit side however, the conciseness and simplicity of the style fails to provide material of sufficient depth to enable a comprehensive understanding of the subject matter.

On balance I would consider texts such as Theil's *Principles of Econometrics* (1971) or Goldberger's *Econometric Theory* (1964) on the ID-style and Wold's *Econometric Model Building* (1967) on the CC-style to be far better investments.

G. R. GRIFFITH

Department of Agriculture, Sydney

Managerial Economics: Analysis and Cases, W. W. Haynes. Dallas, Texas: Business Publications, Inc., 1969. Pp. 726. $12.00.

The changing environment necessitates the use of more advanced methods in dealing with problems in our complex market-place. Consequently managerial economics is becoming an essential part of the modern manager's decision-making process. Concentration on the practical applications of economic theory requires firstly a basic grounding in economic principles followed by adoption procedures which allows for effective application. Haynes' book is one example of this procedure for helping people understand and apply economic reasoning to their overall problem solving process.

To define managerial economics one can parallel it with operational research. Managerial economics is a background subject which both line managers and operational researchers must understand if they are to be successful. Operations research is a functional activity pursued by specialists within the firm. They seek to apply the basic principles of managerial economics, sociology and statistics to business problems. Managers differ from these specialists in that they must achieve results quickly and cheaply. Thus it can be said that managerial economics provides the manager with the tools necessary to carry out instant operations research.

This book is divided into six parts covering the field of managerial economics. In presenting the book Haynes uses three elements. Firstly he presents the theoretical side of the subject. Secondly he looks at the empirical work that has been done in this particular field. Lastly he presents case studies for analysis. This overall coverage helps bind the process of learning and applying economic rationale. The approach is to be commended. The only problem is that empirical studies and cases

pertain to the United States, thus reducing some of its relevance to Australian managers.

Part one deals with managerial economics and its fundamental concepts. Haynes quotes Baumol as suggesting that it is not the final theorems of economics that are important to managers but the methods of reasoning. Haynes portrays the following concepts to be basic to managerial economics. These are the incremental concept, time perspective, discounting, opportunity cost, equimarginal principle and the contribution concept.

Part two deals with aspects of demand and methods of forecasting demand. This section is fairly theoretical and the section on psychological and social influence could have been expanded.

Cost analysis constitutes part three, starting with short-run cost analysis and continue on to production functions and long-run cost considerations. Haynes' coverage of this important aspect is adequate with a good coverage of breakeven charts. The section on production functions is brief but full analysis of this topic is not warranted.

Part four is important to managerial decision-making and Haynes' coverage is appropriate. Pricing is fundamental to all business decisions and requires immense levels of man resources. An understanding of the market-place (type of market prevailing) underlies management decisions. Haynes covers selected topics for example, price discrimination and multiple products which prove useful.

Part five looks at capital budgeting and uncertainty. Haynes' treatment of capital budgeting covers all important aspects from selection, through evaluating and ranking of investment alternatives. His coverage of risk and uncertainty is adequate for managerial purposes dealing with the major methods of handling uncertainty. This section tends away from the theoretical aspects, thus avoiding subjects like probability analysis.

The last part previews advanced topics in managerial economics. The two main cases he looks at are transfer pricing and linear programming. Transfer pricing is most useful as most production managers find this a problem. The linear programming case only outlines the basic ideas and persons interested in this field would gain benefit elsewhere.

To conclude, Haynes' book covers the major areas essential to a manager's decision-making process by outlining the basic tools. Its empirical examples and case analysis provide useful material for student teaching purposes. However, the book requires a basic understanding of economics, especially jargon, which could handicap its usefulness to practising managers. It is, however, a useful book for students of business management, managers from professional backgrounds and could be beneficial to large company libraries.

I. OVENS

Department of Agriculture, Sydney

Australian Water Resources and Their Development, C. H. Munro, Sydney: Angus and Robertson, 1974. Pp. xi, 225. $5.95.

Water is one of the few scarce natural resources of Australia. Rainfall and resultant streamflow are low and variable over both time and space. As a consequence the effective harnessing and rational development of water resources will be major determinants of future levels of population and development. This consideration underlies *Australian Water Resources and Their Development.*

This book is structured into seven chapters, and covers a broad range of aspects of water resource development.

The first two chapters outline various hydrological concepts, on the grounds that the nature of hydrology is vital to water resource planning. Descriptive hydrology is considered initially with explanations of the phases of the hydrological cycle. Some hydrological "misconceptions" are also discussed, e.g., filling Lake Eyre to increase the rainfall in Central Australia, cycles of rainfall, and water divining. The second chapter deals with quantitative hydrology. The purpose is to describe the measurements required for planning and operating water resource projects, e.g., methods of streamflow measurement, analysis of streamflow data, precipitation measurement, evaporation and evapotranspiration measurement.

Chapter 3 applies the principles of quantitative hydrology to both the control and use of water resources. Rainfall-runoff relationships, flood estimation and flood routing are discussed, as well as hydro-economic studies (which to the non-engineer are simply benefit-cost analyses). Case study applications of benefit-cost analysis are given for irrigation, flood mitigation, town water supply, hydro-electric power and multi-purpose projects.

The water resources of Australia, as "set by Nature", are discussed in chapter 4. Rainfall and runoff patterns over the continent are explained, and a section is devoted to groundwater supplies. A number of interesting statistical tabulations are also provided. The following chapter gives the book a historical aspect, with the author reviewing the history of water resource development from colonization, on a state by state basis.

Chapter 6 is probably the most interesting and important of the book. It considers two important aspects of future water resource development; the demand for and supply of water, and research needs. In respect of the former, the author questions the rationale of planning, at very substantial cost, for absolute reliability in urban water supplies. His argument is that the major use for urban water, namely gardening purposes, does not provide sufficient benefits to warrant the additional costs necessary to provide for that level of reliability. Unfortunately, the analysis does not extend into discussing the reasons for planning for this level of reliability. In contrast is the situation of irrigation where the author states ". . . some degree of rationing is taken for granted". He suggests there is ample scope for increasing irrigation with the major barrier, the competition between city and country areas for money to

build dams. Finally in the chapter, the author is critical of appropriate authorities for failing to support research into the harnessing of the resource. As a means to overcoming this deficiency, he proposes a levy on water consumption to finance research. A similar principle is adopted for much rural research.

The final chapter develops and extends appraisal techniques from the restricted, "efficiency" notion of benefit-cost analysis, to the more sophisticated and now accepted multi-objective techniques. The controversy regarding irrigation in Australia, initiated in Davidson's *Australia: Wet or Dry?* is also outlined.

What of the book's contribution to water resource literature? Professor Munro is well qualified to write such a book, having had a long career in civil engineering and water resource development, and being widely known for his involvement in the comprehensive Keepit Dam study. Despite this, the book is a mixture of "goods, bads and uglies".

On the credit side, many of the issues raised are highly relevant and will be the subject of much attention in future planning. For example, the question of reliability of supplies and future research needs are two issues which stand to mind.

On the debit side, two aspects are worth discussing. Of minor consequence is that, whilst the book is not difficult to read, the author's style is often verbose and sometimes one of intimate story telling, e.g., "If conversation is lagging among a group of countrymen, one surefire way of livening it up is to raise the question of water divining. The most common method of divining consists of cutting a forked twig . . .".

Many readers will be disappointed with the author's interpretation of economic appraisal. Initially he implies benefit-cost analysis is a specific and easy undertaking, despite recognizing the existence of secondary and intangible benefits (but apparently not costs). The virtues of multi-objective evaluation are then given some credence, although not dealt with in any substantive way. The examples of evaluation which are discussed, are based solely on efficiency criteria (benefit-cost analysis), although occasionally some rather general statements referring to secondary benefits are made, e.g., "an irrigation scheme will tend to counteract the drift to the big cities of the population of country towns". The failure to provide a reasonable analysis of multiobjective evaluation is an inadequacy of the book. This seems a particularly relevant criticism in that since the publication of *A National Approach to Water Resources Management* in October 1973 (some twelve months prior to the publication of the book under review), it has been stated government policy that such criteria are to be employed in evaluating public water resource projects.

In conclusion, the book offers some interesting reading, and can be recommended as a general introductory analysis to different aspects of water resource development. It is a pity however, that it does not apply the most up-to-date thinking in respect of project appraisal.

G. A. FORSYTHE

Department of Agriculture, Sydney