

least, would normally expect to see treated in regression analysis: simultaneous equations models, indirect least squares, two- and three-stage least squares, the use of lagged variables. Equally the text does not do justice to the processes involved in developing a model concentrating almost exclusively on the statistical criteria involved rather than on the practical detail necessary in most real-world developments. This is illustrated most clearly by the absence of any detailed discussion of alternatives to the regression model. A concluding chapter outlining the major alternatives to regression in model-building and analysis would have been a useful addition.

Another aspect of the text with which I am not happy is the role of computer facilities and software. Little reference is made to the use of supporting software in the text (the index contains no references to *computers*, *software* or *packages*), and it appears from the focus of many of the student exercises that the reader is not expected to undertake the necessary analysis using computer-based facilities—an approach I find at odds with the emphasis on regression as a research tool.

In conclusion, however, the book is not without its merits. It will make a useful addition to those texts used for reference or for detailed illustration of certain aspects of regression modelling, with the case-study chapters being particularly useful to the reader who has a theoretical, rather than a working, knowledge of the area. It is difficult, however, to see it being used extensively in the UK. I gained the impression that the book was written primarily for graduate students in the science area who are studying how to research rather than for those actually undertaking research.

MIK WISNIEWSKI

Quantitative Forecasting Methods

N. R. FARNUM and L. W. STANTON

PWS-Kent, USA. 573 pp. £18.95

ISBN 0 534 91686 4

Consisting of 573 pages, *Quantitative Forecasting Methods* claims to be an 'applications-orientated statistical forecasting book'.

The general organization of the book is logical in that forecasting models are collected in chapters based on their applicability to trend, seasonality, cyclical and irregular components of the series being forecast. Although logical, this does mean that exponential smoothing models, for instance, are not collected together as a basic family of forecasting models appropriate for a particular forecasting environment but are distributed all over the book on the basis of the suitability of the characteristics of the data being analysed. Personally this reviewer prefers the forecasting family approach but accepts that competitors are permitted to think differently!

As one would expect in 573 pages, virtually all the conventional forecasting models are described, but enthusiasts of Bayesian forecasting methods will have to look elsewhere.

The book is well presented, with numerous practical examples and diagrams of specific forecasting tools of analysis such as printouts of autocorrelation functions and partial a.c.f.s.

Such a large and comprehensive text on forecasting techniques tends to push this particular publication towards the *reference* end of the market rather than the *student text* end. With the topic of forecasting within the UK sitting somewhat unhappily between 'time series analysis' as taught within college mathematics departments on the one hand and practical, applied forecasting within business schools on the other, with OR courses fitting somewhere in between, this book really is a bit too much for the average student.

For the OR group looking for a comprehensive reference book on forecasting for its library: a good buy.

COLIN LEWIS

Simulation Methodology for Statisticians, Operations Analysts and Engineers, Volume 1

P. A. W. LEWIS and E. J. ORAV

Wadsworth, California, 1989. 416 pp. £18.95

ISBN 0 534 09450 3

This book is intended as an introduction to simulation for MSc. students in OR, industrial engineering, civil engineering, electrical engineering, computer science or statistics. It gives a statistically