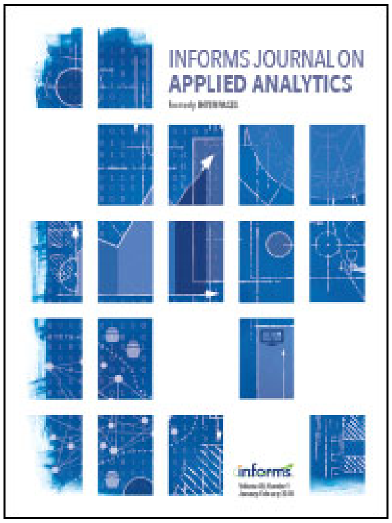

Interfaces

Book Reviews

To cite this article:
(1984) Book Reviews. Interfaces 14(1):169-173. https://doi.org/10.1287/inte.14.1.169

Book Reviews

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The range of books reviewed is wide, covering theory and applications in operations research, statistics, econometrics, mathematics, computers, and information systems. In addition, we include books in other fields that emphasize technical applications. We list the books and proceedings received; not all books received can be reviewed because space and time are limited. Those who would like to review books are urged to send the Editor their names, addresses, and specific areas of expertise. The Editor commissions all reviews and does not accept unsolicited book reviews. Readers are encouraged to suggest books that might be reviewed or to ask publishers to send copies of such books to the Editor.

JUDGE, GEORGE G.; HILL, R. CARTER; GRIFFITHS, WILLIAM; LÜTKEPOHL, HELMUT; AND LEE, TSOUNG-CHAO, 1982, *Introduction to the Theory and Practice of Econometrics*, John Wiley and Sons, New York, pp. 839, + xxix, $31.95.

Since the early 1960s when the milestone books by Johnston [1963] and Goldberger [1964] were published, econometrics has made great progress. The new developments have stemmed partly from co-opting developments in other related fields, and partly through discoveries made directly in the field of econometrics. For some reason, however, econometrics textbooks have lagged far behind in assimilating these developments (a notable exception being Theil [1971]). Thus a gap occurred between the literature and textbooks of econometrics. In contrast, the present book and its predecessor [Judge et al. 1980] are truly landmarks in econometrics textbooks. In terms of coverage, rigor, cogency, and perspective, one can confidently predict that these books will leave a lasting imprint on the econometric field.

The most important achievement of this book, in addition to its coverage and level

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of sophistication, is its recognition that econometrics practice inherently involves uncertainty about the model to be estimated, the search for the best specification, and the necessity for using nonsample information efficiently. The authors provide the reader with Bayesian and non-Bayesian methods of using nonsample information, including the James and Stein rule, and they devote one chapter to the problem of model selection.

Although the present book is in some ways a simplified version of the authors' earlier book, this is by no means true of the entire text. New chapters on simultaneous equation systems and time series analysis have been added, as have new introductory chapters. Some topics have been deleted, for example, ridge regression and testing non-nested hypotheses. Some typographical errors have been corrected: rule of vector and matrix differentiation on page 207, transplanted from page 48 of the earlier book, no longer contains the error. The book, unlike its predecessor, contains many statistical tables, including one on critical values for the Durbin-Watson test, starting with six observations, which was not previously available in textbooks.

In the preface of the book, it is implied that the book is intended for undergraduate econometrics courses. This understates the book's potential. Except in special cases, the book is best suited for first graduate courses in econometrics and would serve (in conjunction with its predecessor) as an excellent reference for practitioners.

The breadth of coverage is immense. Yet, there are several important topics excluded: for example, spectral, analysis, ridge regression, Cox regression, testing non-nested hypotheses, singular value decomposition, and some others. Indeed, it may be conjectured that the age of single volume econometrics textbooks is over. Authors contemplating writing on the subject might better plan a multivolume text. The book consists of eleven parts (excluding introduction and statistical tables). Part 1 (five chapters) provides the statistical background, including the exposition of least squares technique, maximum likelihood, and Bayesian analysis. Part 2 (three chapters) on estimation and inference in linear statistical models, again includes the above three approaches. Part 3 (three chapters) takes up the case of stochastic regressors and discusses asymptotic theory, after which it presents the generalized least squares technique and estimation of seemingly unrelated equations. In Part 4 (two chapters) on simultaneous models, almost all subjects except k-class estimators are discussed. Part 5 (two chapters) contains an explanation of heteroscedasticity and autocorrelation, while in Part 6 (two chapters), the assumption of fixed parameters is relaxed, and pooling cross section, time series data and variable parameters models are discussed. Part 7 (two chapters) contains models of qualitative and limited dependent variables and of errors in variables models. Part 8 (four chapters) includes material on the use of nonsample information, biased estimation à la James and Stein, specification analysis and multicollinearity. Part 9 (one chapter) covers nonlinear methods. Part 10 (three chapters) is devoted to dynamic models: time series methods, both univariate and bivariate, and distributed lag models. Finally, Part 11 (one chapter) itself constitutes a special feature, containing a summary of statistical models, estimators and tests, that can be used as a quick reference.

Some observations about this book may interest the potential reader and may be of some value if the book is revised:
(1) The word "practice" in the title of the book does not refer to empirical works in econometrics. The closest the authors come to practice is a couple of references to the Klein-Goldberger model.
(2) Perhaps because of the use of "practice," the introductory remarks of the chapters do not provide sufficient motivation for the techniques introduced. Readers are offered a collection of techniques that they must figure out when and how to use.
(3) Towards the end of the chapters, discussion — somehow like autocorrelation functions — tapers off. For instance, the important subject of estimation of a model with a limited dependent variable is alluded to, but not discussed at the end of Chapter 18. And discussion of estimation of time series models is handled with the utmost parsimony in Chapters 25 and 26.

These comments are not meant to detract from the excellence and importance of the book. I hope the authors go on to produce a multivolume econometrics textbook with a view toward the above points. In the meantime, instructors can do no better than to assign this book in conjunction with a collection of readings on applied econometrics. The researcher would be best advised to keep this book and its predecessor close at hand.

References

Goldberger, A. S. 1964, *Econometric Theory*, John Wiley and Sons, New York.
Johnston, J. 1963, *Econometric Methods*, McGraw-Hill, New York.
Judge, G, G.; Griffiths, W. E.; Hill, R. C.; Lee, T. 1980, *The Theory and Practice of Econometrics*, John Wiley and Sons, New York.
Theil, H. 1971, *Principles of Econometrics*, John Wiley and Sons, New York.

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Kahneman, Daniel; Slovic, Paul; and Tversky, Amos, editors 1982, *Judgement under Uncertainty: Heuristics and Biases*, Cambridge University Press, Cambridge, England, 555 pp., $14.95.

Following the precedent set by Ed Sullivan's "Toast of the Town," television variety programs have tended to feature a pianist-composer who regales the audience with a seemingly inexhaustible rending of his or her compositions, interspersed with the traditional" . . . and then I wrote . . . " With Daniel Kahneman and Amos Tversky at the twin pianos, Paul Slovic assisting in the production, and an excellent supporting cast doing a specialty number or two, *Judgement under Uncertainty: Heuristics and Biases* is, in and of itself, indeed a "rrreally big shew." Much of the audience will find the tunes familiar and many of the lyrics repetitive, but the oldies are goodies that hold up well and what new material is contained therein falls very pleasantly on the ear.

In essence, this ten-part book reproduces in whole, in part or in revised form, a collection of 26 previously-published papers from the psychology (behavioral) literature dealing with the behavioral issues and problems that underlie the quantification of judgment, as well as nine heretofore unpublished contributions to that cause. Kahneman and Tversky coauthored twelve of the papers, which will tell most people already interested in the subject what to expect from the book. For any others who need their appetites whetted, the eight parts sandwiched between the Introduction and Postscript carry the following labels: Representativeness; Causality and Attribution; Availability; Covariation and Control; Overconfidence; Multi-stage Evaluation; Corrective Procedures; and Risk Perception. There is also a complete and up-to-date bibliography to which the references in the papers have all been keyed.

I'm sorry to have to confess that with few exceptions I had never before actually sought out and read any of these papers. Rather, I was content to rely on secondary sources for their contents. The loss was assuredly mine. admittedly, I read the book over a one-week period while relaxing at the side of a pool, but I don't think the ambience influenced my judgment. While I did not necessarily learn anything that I had not known or suspected, I was stimulated by the book, I found it thought-provoking, and I will undoubtedly be referring back to it time and time again in the very near future, both in my doctoral seminar in statistical decision theory and in my related research efforts. I am delighted to have the book in my library and strongly recommend it for the reader's.

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Books Received for Review

Anderson, David R.; Sweeney, Dennis J.; and Williams, Thomas A. 1983, *Quantitive Methods for Business*, West Publishing, St. Paul, Minnesota, pp. 647, $26.95.

Arnold, Danny R.; Capella, Louis M.; and Smith, Garry D. 1983, *Strategic Retail Management*, Addison-Wesley, Reading, Massachusetts, pp. 708, $25.95.

Barnett, Stephen 1983, *Polynomials and Linear Control Systems*, Marcel Dekker, New York, pp. 472, $35.00.

Bellman, Richard 1983, *Mathematical Methods in Medicine*, World Scientific Publishing, Singapore, pp. 252, $32.00.

Bennett, Roger 1983, *Management Research: Guide for the Institutions and Professionals*, International Labour Organization, Geneva, Switzerland, pp. 245, $10.10.

Buehler, Veron M. and Shetty, Y. Krisha 1983, *Productivity Improvement*, AMACOM, New York, pp. 273, $19.95.

Buehler, Veron M. and Shetty, Y. Krisha 1983, *Quality and Productivity Improvements: U.S. and Foreign Company Experiences*, Manufacturing Productivity Center, Illinois Institute of Technology, Chicago, Illinois, pp. 332, $15.00.

Callahan, L. G. Jr., 1983, *Modeling and Simulations of Land Combat*, The Georgia Institute of Technology, Department of Continuing Education, Atlanta, Georgia, pp. 401, $25.00.

Caplow, Theodore 1983, *Managing an Organization*, second edition, Holt, Rinehart, & Winston, Inc., New York, pp. 206, $19.95.

Carlsson, C. and Kochetkov, Y. 1983, *Theory and Practice of Multiple Criteria Decision Making*, North-Holland Publishing, New York, pp. 170, $42.50.

Dennis, J. E. Jr., and Schnable, Robert G. 1983, *Numerical Methods for Unconstrained Optimization and Nonlinear Equations*, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 378, $28.95.

Dessler, Gary 1983, *Improving Productivity at Work – Motivating Today's Employees*, Reston Publishing, Reston Virginia, pp. 230, $19.95.

Dwyer, Thomas and Critchfield, Margot 1983, *Basic and the Personal Computer*, Addison-Wesley, Reading, Massachusetts, pp. 438, $15.55.

Edwards, Chris 1982, *Developing Microcomputer-Based Business Systems*, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 202, $16.95.

Englebrecht-Wiggans, Richard; Shubik, Martin; and Stark, Robert M. 1983, *Auctions, Bidding, and Contracting: Uses and Theory*, New York University Press, New York, pp. 566, $31.50.

Fay, Stephen 1983, *Beyond Greed*, Penguin Books, New York, pp. 304, $6.95.

Fitzsimmons, James A. and Sullivan, Roberts 1982, *Service Operations Management*, McGraw-Hill, Hightstown, New Jersey, pp. 449, $25.00.

Friedman, Frank L. and Koffman, Elliot B. 1979, *Problem Solving and Structured Programming in BASIC*, Addison-Wesley, Reading, Massachusetts, pp. 395, $17.95.

Green, Alan and Kahaner, Larry 1983, *The Phone Book*, Penguin Books, New York, pp. 143, $7.95.

Eliasson, Gunnar and Fries, Harald 1982, *Microeconometrics – IUI Yearbook*, IUI Research Program, Stockholm, Sweden, pp. 178, price not available.

Kasperson, Roger E., ed. 1983, *Equity Issues in Radioactive Waste Management*, Oelgeschlager, Gunn and Hain Publishing, Cambridge, Massachusetts, pp. 395, $25.00.

Klitzner, Carol and Plociak, Matthew J., Jr. 1983, *Using Visicalc*, John Wiley and Sons, New York, pp. 277, $16.95.

Kotz, Samuel and Stroup, Donna F. 1983, *Educated Guessing: How to Cope in an Uncertain World*, Marcel Dekker, New York, pp. 187, $15.95.

Luck, G. M. and Walsham, G., eds. 1982, *Selected Readings in Operational Research for Developing Countries*, Operational Research Society, Birmingham, England, pp. 239, £5.00

Makridakis, Spyros; McGee, Victor E.; and Wheelwright, Steven C. 1983, *Forecasting – Methods and Applications*, second edition, John Wiley and Sons, New York, pp. 923, $34.95.

Martin, James 1983, *Managing the Data-Base Environment*, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 766, $49.95.

Mjelde, K. M. 1983, *Methods of the Allocation of Limited Resources*, John Wiley and Sons, New York, pp. 88, $24.95.

Nemirovsky, A. S. and Yudin, D. B. 1983, *Problem Complexity and Method Efficiency in Optimization*, John Wiley and Sons, New York, pp. 388, $49.95.

Ohmae, Kenichi 1982, *The Mind of the Strategist*, McGraw-Hill, Hightstown, New Jersey, pp. 283, $5.95.

Overgaard, Mark and Stringfellow, Stan 1983, Personal Computing with the UCSD P. System, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 448, $23.95.

Paul, Samuel 1983, *Strategic Management of Development Programmes*, International Labour Organization, Geneva, Switzerland, pp. 137, 17.50 Swiss Francs.

Percy, Larry and Woodside, Arch G. 1983, *Advertising and Consumer Psychology*, Lexington Books, Lexington, Massachusetts, pp. 400, $39.95.

Ruddick, Morris E., Sherwood, Philip K., and Steven, Robert E. 1983, *The Marketing Research Handbook: A Decision-Oriented Approach*, Prentice-Hall, Engelwood Cliffs, New Jersey, 210 pp., $11.95.

Schmid, Calvin 1983, *Statistical Graphics*, John Wiley and Sons, New York, pp. 212, $24.95.

Simon, Herbert A. 1983, *Reason in Human Affairs*, Stanford University Press, Stanford, California, pp. 115, $10.00.

Stultz, Russell A. 1983, *The Illustrated CP/M Wordstar Dictionary*, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 258, $14.95.

Van Der Duyn Schouten, F. A. 1983, *Markov Decision Processes with Continuous Time Parameter*, Mathematisch Centrum, Amsterdam, pp. 194, $8.95.