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EVALUATION OF ECONOMETRIC MODELS

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Edited by

JAN KMENTA

Department of Economics
University of Michigan
Ann Arbor, Michigan

JAMES B. RAMSEY

Department of Economics
New York University
New York, New York

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List of Contributors

Numbers in parentheses indicate the pages on which the authors' contributions begin.

Raymond C. Battalio (379), Department of Economics, College of Liberal Arts, Texas A&M University, College Station, Texas 77843

Fred L. Bookstein (75), Center for Human Growth and Development, University of Michigan, Ann Arbor, Michigan 48109

Gregory C. Chow (229), Econometric Research Program, Department of Economics, Princeton University, Princeton, New Jersey 08540

John G. Cross (403), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109

*Warren Dent** (169), Department of Economics, The University of Iowa, Iowa City, Iowa 52242

James M. Dickey (245), Department of Mathematics and Statistics, State University of New York at Albany, Albany, New York 12222

Robert F. Engle (309), Department of Economics, University of California, San Diego, La Jolla, California 92093

John Geweke (169), Department of Economics, University of Wisconsin, Madison, Wisconsin 53706

C. W. J. Granger (339), Department of Economics, University of California, San Diego, La Jolla, California 92093

Michio Hatanaka (323), Institute of Social and Economic Research, Osaka University, Suita, Osaka, Japan

David K. Hildebrand (91), Department of Statistics, The Wharton School CC, University of Pennsylvania, Philadelphia, Pennsylvania 19174

Bruce M. Hill (197), Department of Statistics, University of Michigan, Ann Arbor, Michigan 48109

Robert S. Holbrook (269), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109

E. Philip Howrey (275), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109

Saul H. Hymans (219), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109

*Present address: Eli Lilly International Corporation, Indianapolis, Indiana 46206

Joseph B. Kadane (245), Department of Statistics, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213
John H. Kagel (379), Department of Economics, College of Liberal Arts, Texas A&M University, College Station, Texas 77843
Harry H. Kelejian (135), Department of Economics, University of Maryland, College Park, Maryland 20740
Jan Kmenta (1), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109
*William S. Krasker** (223), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109
James D. Laing (91), School of Public and Urban Policy, University of Pennsylvania, Philadelphia, Pennsylvania 19174
Lawrence S. Mayer† (15), Department of Statistics, Princeton University, Princeton, New Jersey 08540
James B. Ramsey (1), Department of Economics, New York University, New York, New York 10003
Howard Rosenthal (91), Graduate School of Industrial Administration, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213
V. Kerry Smith (123), Department of Economics, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27514
Vernon L. Smith (345), Department of Economics, College of Business and Public Administration, University of Arizona, Tucson, Arizona 85721
Frank P. Stafford (407), Department of Economics, University of Michigan, Ann Arbor, Michigan 48109
T. Dudley Wallace (323), Department of Economics, Duke University, Durham, North Carolina 27706
Roy E. Welsch (153), Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139
Herman Wold (47), Department of Statistics, University of Uppsala, S-751 20 Uppsala, Sweden

*Present address: Graduate School of Business Administration, Harvard University, Soldiers Field, Boston, Massachusetts 02163
†Present address: Analysis Center, Wharton School, University of Pennsylvania, Philadelphia, Pennsylvania 19104

Preface

The origins of this book go back several years to the time when the National Bureau of Economic Research (under the auspices of the National Science Foundation) was sponsoring various seminars for the purpose of assessing and enhancing the progress of applied economic research. One of the seminars was entrusted with the problem of devising criteria for the evaluation of econometric models. A group of interested scholars and researchers met several times to discuss various issues related to this problem. The result was compiled in a single publication[1] which represented a comprehensive statement of the state of the art at the time. After the completion of this study it became very clear that the existing knowledge did not and still does not take us very far toward the solution of the problem of econometric model evaluation and that it might be desirable to explore new approaches to the problem.

This consideration led us to conduct an inquiry about some ongoing work which might be relevant in the fringe areas of econometrics and applied economics. A call for papers for presentation at a symposium held in Ann Arbor produced a number of submissions.

The papers included in this volume represent our selections of those submissions. Each paper was subjected to a rigorous refereeing and editorial process as if it had been submitted to a leading professional journal. The only major difference was that we were concerned more with the originality of ideas, as viewed from the mainstream of econometrics, and with the form of exposition than with the novelty of theorems and techniques or technical brilliance.

The main purpose of the volume at hand is to bring to the attention of students and researchers in applied economics some of the new approaches to model formulation and evaluation that are not yet discussed in the standard econometric literature but that do appear to be promising or at least worth knowing about.

Some of these approaches have already been described in journal articles or book chapters, but not in a form that would make them accessible, or sometimes even understandable, to econometricians or to the users of

[1]Dhrymes, P. J., *et al.*, Criteria for evaluation of econometric models. *Annals of Economic and Social Measurement*, 1972, 1 (3), 291–324.

econometrics. For instance, there is no systematic discussion in the econometrics literature of such topics as Tukey's exploratory data analysis, of Wold's partial least squares analysis, or of the problems of economic experimentation. Other approaches presented in this volume are quite novel in their focus and may well be worth developing into practical tools of applied econometrics.

The book thus provides for topics on the boundaries of econometrics a compendium that could serve as a basis or an inspiration for further work toward the progress of our discipline.

The list of fellow econometricians and economists from whose advice we have benefited is quite long. It includes all the formal discussants, whose comments appear in the text, all the external referees, who have to remain anonymous but whose contributions were nevertheless very important, and many others with whom we had informal discussions about some of the issues raised in this volume. Our special thanks go to W. Barnett, M. E. Bock, W. H. Du Mouchel, G. Fromm, K. Gaver, M. S. Geisel, M. E. Ireland, G. C. Judge, E. Leamer, W. H. Locke Anderson, J. McCall, D. McFadden, M. T. Maloney, C. Manski, D. W. Peterson, E. D. Rothman, H. Shapiro, W. Spivey, R. L. Teigen, V. M. R. Tummala, and W. J. Wrobleski, who participated in various official and unofficial capacities in the symposium and contributed to the discussion.

A commendation is due to David Coe, who served as a very able rapporteur for the symposium, and to Mary Braun, whose secretarial and typing help went well beyond the call of duty. Finally, we are indebted to the National Science Foundation for financial support in running the symposium and to the University of Michigan for the provision of facilities. One of the editors, Jan Kmenta, would also like to acknowledge the support of the Humbolt Foundation of Germany and of the Institute of Econometrics at the University of Bonn in the final stages of the preparation of the manuscript.