

Econometric Approach To Efficiency Analysis

This work focuses on measuring and explaining producer performance. The authors view performance as a function of the state of technology and economic efficiency, with the former defining a frontier relation between inputs and outputs; the former incorporating waste and misallocation relative to this frontier. They show that insights can be gained by allowing for the possibility of a divergence between the economic objective and actual performance, and by associating this inefficiency with causal variables subject to managerial or policy influence. Derived from a series of lectures held on techniques and applications of the three approaches to the construction of production frontiers and measure of efficiency, this work will be an essential reference to scholars of a variety of disciplines who are involved with quantitative methods or policy.

This book provides a detailed introduction to the theoretical and methodological foundations of production efficiency analysis using benchmarking. Two of the more popular methods of efficiency evaluation are Stochastic Frontier Analysis (SFA) and Data Envelopment Analysis (DEA), both of which are based on the concept of a production possibility set and its frontier. Depending on the assumed objectives of the decision-making unit, a Production, Cost, or Profit Frontier is constructed from observed data on input and output quantities and prices. While SFA uses different maximum likelihood estimation techniques to estimate a parametric frontier, DEA relies on mathematical programming to create a nonparametric frontier. Yet another alternative is the Convex Nonparametric Frontier, which is based on the assumed convexity of the production possibility set and creates a piecewise linear frontier consisting of a number of tangent hyper planes. Three of the papers in this volume provide a detailed and relatively easy to follow exposition of the underlying theory from neoclassical production economics and offer step-by-step instructions on the appropriate model to apply in different contexts and how to implement them. Of particular appeal are the instructions on (i) how to write the codes for different SFA models on STATA, (ii) how to write a VBA Macro for repetitive solution of the DEA problem for each production unit on Excel Solver, and (iii) how to write the codes for the Nonparametric Convex Frontier estimation. The three other papers in the volume are primarily theoretical and will be of interest to PhD students and researchers hoping to make methodological and conceptual contributions to the field of nonparametric efficiency analysis.

Measuring productive efficiency for nonprofit organizations has posed a great challenge to applied researchers today. The problem has many facets and diverse implications for a number of disciplines such as economics, applied statistics, management science and information theory. This monograph discusses four major areas, which emphasize the applied economic and econometric aspects of the production frontier analysis: A. Stochastic frontier theory, B. Data envelopment analysis, C. Clustering and robust estimation theory, D. Economic and managerial applications Besides containing an up-to-date survey of the most recent developments in the field, the monograph presents several new results and theorems from my own research. These include but are not limited to the following: (1) interface with parametric theory, (2) minitax and robust concepts of production frontier, (3) game-theoretic extension of the Farrell and Johansen models, (4) optimal clustering techniques for data envelopment analysis and (5) the dynamic and stochastic generalizations of the efficiency frontier at the micro and macro levels. In my research work in this field I have received great support and inspiration from Professor Abraham Charnes of the University of Texas at Austin, who has basically founded the technique of data envelopment analysis, developed it and is still expanding it. My interactions with him have been most fruitful and productive. I am deeply grateful to him. Finally, I must record my deep appreciation to my wife and two children for their loving and enduring support. But for their support this work would not have been completed. The editors draw on a 3-year project that analyzed a Portuguese area in detail, comparing this study with papers from other regions. Applications include the estimation of technical efficiency in agricultural grazing systems (dairy, beef and mixed) and specifically for dairy farms. The conclusions indicate that it is now necessary to help small dairy farms in order to make them more efficient. These results can be compared with the technical efficiency of a sample of Spanish dairy processing firms presented by Magdalena Kapelko and co-authors.

An Econometric Approach to Applied Welfare Economics

Port Economics

Advances in Efficiency and Productivity Analysis

A Festschrift for Léopold Simar

The Measurement of Productive Efficiency and Productivity Growth

The Econometrics of Panel Data

Data envelopment analysis develops a set of nonparametric and semiparametric techniques for measuring economic efficiency among firms and nonprofit organizations. Over the past decade this technique has found most widespread applications in public sector organizations. However these applications have been mostly static. This monograph extends this static framework of efficiency analysis in several new directions. These include but are not limited to the following: (1) a dynamic view of the production and cost frontier, where capital inputs are treated differently from the current inputs, (2) a direct role of the technological progress and regress, which is so often stressed in total factor productivity discussion in modern growth theory in economics, (3) stochastic efficiency in a dynamic setting, where reliability improvement competes with technical efficiency, (4) flexible manufacturing systems, where flexibility of the production process and the economies of scope play an important role in efficiency analysis and (5) the role of economic factors such as externalities and input interdependencies. Efficiency is viewed here in the framework of a general systems theory model. Such a view is intended to broaden the scope of applications of this promising new technique of data envelopment analysis. The monograph stresses the various applied aspects of the dynamic theory, so that it can be empirically implemented in different situations. As far as possible abstract mathematical treatments are avoided and emphasis placed on the statistical examples and empirical illustrations.

The volume examines the state-of-the-art of productivity and efficiency analysis. It brings together a selection of the best papers from the 10th North American Productivity Workshop. By analyzing world-wide perspectives on challenges that local economies and institutions may face when changes in productivity are observed, readers can quickly assess the impact of productivity measurement, productivity growth, dynamics of productivity change, measures of labor productivity, measures of technical efficiency in different sectors, frontier analysis, measures of performance, industry instability and spillover effects. The contributions in this volume focus on the theory and application of economics, econometrics, statistics, management science and operational research related to problems in the areas of productivity and efficiency measurement. Popular techniques and methodologies including stochastic frontier analysis and data envelopment analysis are represented. Chapters also cover broader issues related to measuring, understanding, incentivizing and improving the productivity and performance of firms, public services, and industries.

Modern tools, such as GIS and remote sensing, are increasingly used in the monitoring of agricultural resources. The developments in GIS technology offer growing opportunities to agricultural economics analysts dealing with large and detailed spatial databases, allowing them to combine spatial information from different sources and to produce different models. The availability of these valuable sources of information makes the advanced models suggested in the spatial statistic and econometric literature applicable to agricultural economics. This book aims at supporting stakeholders to design spatial surveys for agricultural data and/or to analyse the geographically collected data. This book attempts to describe the main typology of agricultural data and the most appropriate methods for the analysis, together with a detailed description of the available data sources and their collection methods. Topics such as spatial interpolation, point patterns, spatial autocorrelation, survey data analysis, small area estimation, regional data modelling, and spatial econometrics techniques are covered jointly with issues arising from the integration of several data types. The theory of spatial methods is complemented by real and/or simulated examples implemented through the open-source software R.

Software version of the second edition Hardcover. Incorporates a new author, Dr. Chris O'Donnell, who brings considerable expertise to the project in the area of performance measurement. Numerous topics are being added and more applications using real data, as well as exercises at the end of the chapters. Data sets, computer codes and software will be available for download from the web to accompany the volume.

A Handbook of the Theory with Applications

Microeconomics

Firm's Resources as Determinants of Manufacturing Efficiency in Tanzania

Container Port Production and Economic Efficiency

An Introduction to Efficiency and Productivity Analysis

Productivity and Efficiency Analysis

Providing a systematic and comprehensive treatment of recent developments in efficiency analysis, this book makes available an intuitive yet rigorous presentation of advanced nonparametric and robust methods, with applications for the analysis of economies of scale and scope, trade-offs in production and service activities, and explanations of efficiency differentials.

This volume systematically details both the basic principles and new developments in Data Envelopment Analysis (DEA), offering a solid understanding of the methodology, its uses, and its potential. New material in this edition includes coverage of recent developments that have greatly extended the power and scope of DEA and have lead to new directions for research and DEA uses. Each chapter accompanies its developments with simple numerical examples and discussions of actual applications. The first nine chapters cover the basic principles of DEA, while the final seven chapters provide a more advanced treatment.

An Introduction to Efficiency and Productivity Analysis is designed as a primer for anyone seeking an authoritative introduction to efficiency and productivity analysis. It is a systematic treatment of four relatively new methodologies in Efficiency/Production Analysis: (a) Least-Squares Econometric Production Models, (b) Total Factor Productivity (TFP) Indices, (c) Data Envelopment Analysis (DEA), and (d) Stochastic Frontiers. Each method is discussed thoroughly. First, the basic elements of each method are articulated using models to illustrate the method's fundamentals, and, second, the discussion is expanded to treat the extensions and varieties of each method's uses. Finally, one or more case studies are provided as a full illustration of how each methodology can be used. In addition, all four methodologies will be linked in the book's presentation by examining the advantages and disadvantages of each method and the problems to which each method can be most suitably applied. The book offers the first unified text presentation of methods that will be of use to students, researchers and practitioners who work in the growing area of Efficiency/Productivity Analysis. The book also provides detailed advice on computer programs which can be used to calculate the various measures. This involves a number of presentations of computer instructions and output listings for the SHAZAM, FTPIP, DEAP and FRONTIER computer programs.

The second edition of a comprehensive state-of-the-art graduate level text on microeconomic methods, substantially revised and updated. The second edition of this acclaimed graduate text provides a unified treatment of two methods used in contemporary econometric research, cross section and data panel methods. By focusing on assumptions that can be given behavioral content, the book maintains an appropriate level of rigor while emphasizing intuitive thinking. The analysis covers both linear and nonlinear models, including models with dynamics and/or individual heterogeneity. In addition to general estimation frameworks (particular methods of moments and maximum likelihood), specific linear and nonlinear models are covered in detail, including probit and logit models and their multivariate, Tobit models, models for count data, censored and missing data cases, causal (or treatment) effects, and duration analysis. Econometric Analysis of Cross Section and Panel Data was the first graduate econometrics text to focus on microeconomic data structures, allowing assumptions to be separated into population and sampling assumptions. This second edition has been substantially updated and revised.

Improvements include a broader class of models for missing data problems; more detailed treatment of cluster problems, an important topic for empirical researchers; expanded discussion of "generalized instrumental variables" (GIV) estimation; new coverage (based on the author's own recent research) of inverse probability weighting; a more complete framework for estimating treatment effects with panel data, and a firmly established link between econometric approaches to nonlinear panel data and the "generalized estimating equation" literature popular in statistics and other fields. New attention is given to explaining when particular econometric methods can be applied; the goal is not only tell readers what does work, but why certain "obvious" procedures do not. The numerous included exercises, both theoretical and computer-based, allow the reader to extend methods covered in the text and discover new insights.

Panel Data Econometrics

The Measurement of Productive Efficiency

Econometrics of Information and Efficiency

Techniques and Applications

Counting the Environment and Natural Resources

Measurement of Productivity and Efficiency

This book provides the most comprehensive treatment to date of microeconomics, the analysis of individual-level data on the economic behavior of individuals or firms using regression methods for cross section and panel data. The book is oriented to the practitioner. A basic understanding of the linear regression model with matrix algebra is assumed. The text can be used for a microeconomics course, typically a second-year economics PhD course; for data-oriented applied microeconomics field courses; and as a reference work for graduate students and applied researchers who wish to fill in gaps in their toolkit. Distinguishing features of the book include emphasis on nonlinear models and robust inference, simulation-based estimation, and problems of complex survey data. The book makes frequent use of numerical examples based on generated data to illustrate the key models and methods. More substantially, it systematically integrates into the text empirical illustrations based on seven large and exceptionally rich data sets.

This restructured, updated Third Edition provides a general overview of the econometrics of panel data, from both theoretical and applied viewpoints. Readers discover how econometric tools are used to study organizational and household behaviors as well as other macroeconomic phenomena such as economic growth. The book contains sixteen entirely new chapters; all other chapters have been revised to account for recent developments. With contributions from well known specialists in the field, this handbook is a standard reference for all those involved in the use of panel data in econometrics.

This Handbook takes an econometric approach to the foundations of economic performance analysis. The focus is on the measurement of efficiency, productivity, growth and performance. These concepts are commonly measured residually and difficult to quantify in practice. In real-life applications, efficiency and productivity estimates are often quite sensitive to the models used in the performance assessment and the methodological approaches adopted by the analysis. The Palgrave Handbook of Performance Analysis discusses the two basic techniques of performance measurement – deterministic benchmarking and stochastic benchmarking – in detail, and addresses the statistical techniques that connect them. All chapters include applications and explore topics ranging from the output/input ratio to productivity indexes and national statistics.

Provides a comprehensive approach to productivity and efficiency analysis using economic and econometric theory.

Data Envelopment Analysis

A Comprehensive Text with Models, Applications, References and DEA-Solver Software

Managerial and Econometric Approach

Fundamentals and Recent Developments in Theory and Practice

A Production Frontier Approach

Methods and Applications

This is a management oriented book about efficiency, quality and effectiveness designed for an audience of management practitioners, scholars, and students. The integrative approach developed in this book contains new ideas regarding quality and efficiency-based effective management. These ideas lend themselves to managerial applications. This work is not meant to provide an exhaustive account of the measurement, and applications of effectiveness, quality, and efficiency concepts. With the exception of the treatment of conventional productivity concepts and measurements in Chapter 2, and of production flexibility in Chapter 5, the discussion in this book is largely non-technical. Among management practitioners, the book may be of particular interest to managers with broad strategic orientations in the fields of production management, quality management, marketing, and management of human resources. The academic audience is likely to include scholars and students interested in strategic planning, applied productivity analysis, quality management, marketing management, and management of human resources. The book could also be used as a supplementary text to or part of the readings in basic and advanced courses in strategic management, production management, and quality management. Concepts and dimensions of efficiency, quality, and effectiveness, as used throughout this book, are introduced in Chapter 1. The intricate sets of relationships among effectiveness, quality, and efficiency are explored.

This book provides practitioners with a step-by-step guide on how to conduct efficiency analysis using the stochastic frontier approach.

Panel Data Econometrics: Theory introduces econometric modelling. Written by experts from diverse disciplines, the volume uses longitudinal datasets for a variety of fields, such as banking, financial markets, tourism and transportation, auctions, and experimental economics. Contributors emphasize techniques and applications, and they accompany their explanations with case studies, empirical exercises and supplementary code in R. They also address panel data analysis in the context of productivity and efficiency analysis, where some of the most important applications and advances have recently been made. Provides a vast array of empirical applications useful to practitioners from different application environments Accompanied by extensive case studies and empirical exercises Includes empirical chapters accompanied by supplementary code in R, helping researchers replicate findings Represents an accessible resource for diverse industries, including health, transportation, tourism, economic growth, and banking, where researchers are not always econometrics experts

Financial, Macro and Micro Econometrics Using R, Volume 42, provides state-of-the-art information on important topics in econometrics, including multivariate GARCH, stochastic frontiers, fractional responses, specification testing and model selection, exogeneity testing, causal analysis and forecasting, GMM models, asset bubbles and crises, corporate investments, classification, forecasting, nonstandard problems, cointegration, financial market jumps and co-jumps, among other topics. Presents chapters authored by distinguished, honored researchers who have received awards from the Journal of Econometrics or the Econometric Society Includes descriptions and links to resources and free open source R Gives readers what they need to jumpstart their understanding on the state-of-the-art

Econometric Analysis of Cross Section and Panel Data, second edition

Exploring Research Frontiers in Contemporary Statistics and Econometrics

Financial, Macro and Micro Econometrics Using R

The Econometric Approach to Efficiency Analysis

The Nonparametric Approach

The Palgrave Handbook of Economic Performance Analysis

This textbook introduces essential topics and techniques in production and efficiency analysis and shows how to apply these methods using the statistical software R. Numerous small simulations lead to a deeper understanding of random processes assumed in the models and of the behavior of estimation techniques. Step-by-step programming provides an understanding of advanced approaches such as stochastic frontier analysis and stochastic data envelopment analysis. The text is intended for master students interested in empirical production and efficiency analysis. Readers are assumed to have a general background in production economics and econometrics, typically taught in introductory microeconomics and econometrics courses.

The aim of this volume is to provide a general overview of the econometrics of panel data, both from a theoretical and from an applied viewpoint. Since the pioneering papers by Edwin Kuh (1959), Yair Mundlak (1961), Irving Hoch (1962), and Pietro Balestra and Marc Nerlove (1966), the pooling of cross sections and time series data has become an increasingly popular way of quantifying economic relationships. Each series provides information lacking in the other, so a combination of both leads to more accurate and reliable results than would be achievable by one type of series alone. Over the last 30 years much work has been done: investigation of the properties of the applied estimators and test statistics, analysis of dynamic models and the effects of eventual measurement errors, etc. These are just some of the problems addressed by this work. In addition, some specific difficulties associated with the use of panel data, such as attrition, heterogeneity, selectivity bias, pseudo panels etc., have also been explored.

The first objective of this book, which takes up Parts I and II, is to give as complete and up-to-date a presentation of these theoretical developments as possible. Part I is concerned with classical linear models and their extensions; Part II deals with nonlinear models and related issues: logit and probit models, latent variable models, duration and count data models, incomplete panels and selectivity bias, joint processes, and simulation techniques.

A port (or seaport) is a place that provides for the vessel transfer of cargo and passengers to and from waterways and shores. Port economics is concerned with the study of the economics of port services. Users of port services are those that utilize the port as part of the transportation process of moving cargo and passengers to and from origin and destination locations. Users include transportation carriers such as shipping lines, railroads and trucking firms that perform these movements and shippers and individuals that provide the cargo and themselves as passengers to be transported. Port users demand port services, whereas port service providers such as the port terminal operator supply port services to port users. Port economics and shipping economics comprise the branch of economics known as maritime economics. This volume provides original contributions to the study of port economics: 1) the evolution of port economics; 2) economic theories of the port, port cost functions and port investment; and 3) empirical evidence on the relative efficiency of ports, the impact of ports on international maritime transport costs, the competitiveness of ports and the impact of deregulation on dockworker wages. "Provides original contributions to the study of port economics "Examines the evolution of port economics, economic theories of the port, and empirical evidence on the relative efficiency of ports, the impact of ports on transport costs, and the competitiveness of ports

Applying research from the ten years since the publication of 'The Measurement of Productive Efficiency,' this book guides readers from the basic models to the latest, cutting-edge extensions.

Spatial Econometric Methods in Agricultural Economics Using R

Theory

Effectiveness, Quality and Efficiency: A Management Oriented Approach

A Practitioner's Guide to Stochastic Frontier Analysis Using Stata

An Econometric Approach

With Applications

The use of pesticides to control agricultural pests both benefits farm production and imposes health and environmental costs on producers and society. This title, first published in 1988, includes an application of the author's methodology to tomato production, in which Antle illuminates the roles that alternative methods of pest management play in producer welfare. He also develops a more general empirical framework for studying producer welfare under uncertainty – a framework in which production risk, sequential decision making, and attitudes toward risk are integrated. This title will be of interest to students of environmental studies.

This book explores novel research perspectives on the intersection of environmental/natural resource economics and productivity analysis, emphasizing the link between productivity and environmental impacts. The purpose of the book is to present new approaches and methods for measuring environmentally adjusted productivity and efficiency, and for incorporating natural resources in standard national accounting practices. These methods are applicable in many contexts, including air and water pollution, climate change, green accounting, and environmental regulation.

This book provides a coherent description of the main concepts and statistical methods used to analyse economic performance. The focus is on measures of performance that are of practical relevance to policy makers. Most, if not all, of these measures can be viewed as measures of productivity and/or efficiency. Linking fields as diverse as index number theory, data envelopment analysis and stochastic frontier analysis, the book explains how to compute measures of input and output quantity change that are consistent with measurement theory. It then discusses ways in which meaningful measures of productivity change can be decomposed into measures of technical progress, environmental change, and different types of efficiency change. The book is aimed at graduate students, researchers, statisticians, accountants and economists working in universities, regulatory authorities, government departments and private firms. The book contains many numerical examples. Computer codes and datasets are available on a companion website.

The Econometric Approach to Efficiency AnalysisAn Application Using the Australian Credit Union IndustryEfficiency Analysis by Production FrontiersThe Nonparametric ApproachSpringer Science & Business Media

New Directions in Productivity Measurement and Efficiency Analysis

An Econometric Approach to Technological Change and Returns to Scale in Steam-electric Generation

Methodology and Applications

Theory of Systems Efficiency

Efficiency Measures in the Agricultural Sector

Production and Efficiency Analysis with R

Modern textbook presentations of production economics typically treat producers as successful optimizers. Conventional econometric practice has generally followed this paradigm, and least squares based regression techniques have been used to estimate production, cost, profit and other functions. In such a framework deviations from maximum output, from minimum cost and cost minimizing input demands, and from maximum profit and profit maximizing output supplies and input demands, are attributed exclusively to random statistical noise. However causal empiricism and the business press both make persuasive cases for the argument that, although producers may indeed attempt to optimize, they do not always succeed. This book develops econometric techniques for the estimation of production, cost and profit frontiers, and for the estimation of the technical and economic efficiency with which producers approach these frontiers. Since these frontiers envelop rather than intersect the data, and since the authors continue to maintain the traditional econometric belief in the presence of external forces contributing to random statistical noise, the work is titled Stochastic Frontier Analysis.

This proceedings volume examines the state-of-the-art of productivity and efficiency analysis and adds to the existing research by bringing together a selection of the best papers from the 8th North American Productivity Workshop (NAPW). It also aims to analyze world-wide perspectives on challenges that local economies and institutions may face when changes in productivity are observed. The volume comprises of seventeen papers that deal with productivity measurement, productivity growth, dynamics of productivity change, measures of labor productivity, measures of technical efficiency in different sectors, frontier analysis, measures of performance, industry instability and spillover effects. These papers are relevant to academia, but also to public and private sectors in terms of the challenges firms, financial institutions, governments and individuals may face when dealing with economic and education related activities that lead to increase or decrease of productivity. The North American Productivity Workshop brings together academic scholars and practitioners in the field of productivity and efficiency analysis from all over the world. It is a four day conference exploring topics related to productivity, production theory and efficiency measurement in economics, management science, operations research, public administration, and related fields. The papers in this volume also address general topics as health, energy, finance, agriculture, utilities, and economic development, among others. The editors are comprised of the 2014 Local organizers, program committee members, and celebrated guest conference speakers.

Efficient measurement plays a vital role in any sort of production but there is a dearth of both applications and in-depth research relating to the container port industry. This book analyzes the relationship between ownership, competition and port efficiency by applying traditional theories in industrial organization and examining them empirically. It is the first to conduct comprehensive comparisons of alternative approaches to efficiency measurement for the industry. This original work makes an important contribution to the establishment of central government policy on port investment, policy and governance.

Efficiency Analysis details the important econometric area of efficiency estimation, both past approaches as well as new methodology. There are two main camps in efficiency analysis: that which estimates maximal output and attributes all departures from this as inefficiency, known as Data Envelopment Analysis (DEA), and that which allows for both unobserved variation in output due to shocks and measurement error as well as inefficiency, known as Stochastic Frontier Analysis (SFA). This volume focuses exclusively on SFA. The econometric study of efficiency analysis typically begins by constructing a convoluted error term that is composed on noise, shocks, measurement error, and a one-sided shock called inefficiency. Early in the development of these methods, attention focused on the proposal of distributional assumptions which yielded a likelihood function whereby the parameters of the distributional components of the convoluted error could be recovered. The field evolved to the study of individual specific efficiency scores and the extension of these methods to panel data. Recently, attention has focused on relaxing the stringent distributional assumptions that are commonly imposed, relaxing the functional form assumptions commonly placed on the underlying technology, or some combination of both. All told exciting and seminal breakthroughs have occurred in this literature, and reviews of these methods are needed to effectively detail the state of the art. The generality of SFA is such that the study of efficiency has gone beyond simple application of frontier methods to study firms and appears across a diverse set of applied milieus. This review should appeal to those outside of the efficiency literature seeking to learn about new methods which might assist them in uncovering phenomena in their applied area of interest.

Efficiency Analysis

Benchmarking for Performance Evaluation

Dynamics of Data Envelopment Analysis

An Economic Approach to Measuring and Explaining Managerial Performance

Year-specific Estimation of Optimal Hedges

A Primer on Recent Advances

Econometrics as an applied discipline attempts to use information in a most efficient manner, yet the information theory and entropy approach developed by Shannon and others has not played much of a role in applied econometrics. Econometrics of Information and Efficiency bridges the gap. Broadly viewed, information theory analyzes the uncertainty of a given set of data and its probabilistic characteristics. Whereas the economic theory of information emphasizes the value of information to agents in a market, the entropy theory stresses the various aspects of imprecision of data and their interactions with the subjective decision processes. The tools of information theory, such as the maximum entropy principle, mutual information and the minimum discrepancy are useful in several areas of statistical inference, e.g., Bayesian estimation, expected maximum likelihood principle, the fuzzy statistical regression. This volume analyzes the applications of these tools of information theory to the most commonly used models in econometrics. The outstanding features of Econometrics of Information and Efficiency are: A critical survey of the uses of information theory in economics and econometrics; An integration of applied information theory and economic efficiency analysis; The development of a new economic hypothesis relating information theory to economic growth models; New lines of research are emphasized.

This book collects contributions written by well-known statisticians and econometricians to acknowledge Léopold Simar's far-reaching scientific impact on Statistics and Econometrics throughout his career. The papers contained herein were presented at a conference in Louvain-la-Neuve in May 2009 in honor of his retirement. The contributions cover a broad variety of issues surrounding frontier estimation, which Léopold Simar has contributed much to over the past two decades, as well as related issues such as semiparametric regression and models for censored data. This book collects contributions written by well-known statisticians and econometricians to acknowledge Léopold Simar's far-reaching scientific impact on Statistics and Econometrics throughout his career. The papers contained herein were presented at a conference in Louvain-la-Neuve in May 2009 in honor of his retirement. The contributions cover a broad variety of issues surrounding frontier estimation, which Léopold Simar has contributed much to over the past two decades, as well as related issues such as semiparametric regression and models for censored data.

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Efficiency Analysis by Production Frontiers

An Application Using the Australian Credit Union Industry

Stochastic Frontier Analysis

Advanced Robust and Nonparametric Methods in Efficiency Analysis

Pesticide Policy, Production Risk, and Producer Welfare