Mathematical Models In Economics Eolss

This volume presents a collection of more than sixty papers on mathematical economics. All papers use a model-based approach. The focus of the book is to demonstrate the state-of-the-art in modelling and research in important areas of economic theory. It is divided into four parts: Part I: Economics; Part II: Operations Research and Models of the Firm; Part III: Risk, Insurance, and Statistics; Part IV: Policy and Methodology. The papers are written by international experts who have dedicated their contributions to Wolfgang Eichhorn on the occasion of his 60th birthday. Researchers as well as graduate students interested in mathematical modelling in economics will find this book a rich source of interesting and novel results.

Mathematical Models in Economics is a component of Encyclopedia of Mathematical Sciences in which is part of the global Encyclopedia of Life Support Systems (EOLSS), an integrated compendium of twenty one Encyclopedias. This theme is organized into several different topics and introduces the applications of mathematics to economics. Mathematical economics has experienced rapid growth, generating many new academic fields associated with the development of mathematical theory and computer. Mathematics is the backbone of modern economics. It plays a basic role in creating ideas, constructing new theories, and empirically testing ideas and theories. Mathematics is now an integral part of economics. The main advances in modern economics are characterized by applying mathematics to various economic problems. Many of today's profound insights into economic problems could hardly be obtained without the help of mathematics. The concepts of equilibrium versus non-equilibrium,

stability versus instability, and steady states versus chaos in the contemporary literature are difficult to explain without mathematics. The theme discusses on modern versions of some classical economic theories, taking account of balancing between significance of economic issues and mathematical techniques. These two volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.
This book focuses on the gender-specific labour force participation rates across regions in India and identifies its most important determinants. Before concentrating on the Indian context, it examines the participation rates of various countries in the Asia-Pacific region. Not unexpectedly, the study shows that the rate is significantly lower for females than for males in this region. The rural–urban differentials are more pronounced and the inter-state variations are more sizable among females than males. Even in large cities, the female labour market participation is lower than that in the rural areas despite higher levels of education. However, in terms of inter-spatial (rural/urban/city) variations, the impact of infrastructure, education, health and urbanization on the labour force participation of both genders is quite distinct. On the whole, the study reinforces the stance that women's participation in productive activities has a doubly positive impact; it not only raises the household income, but also contributes to the wellbeing of the household. These findings are important from a policy perspective, as different infrastructure variables are confirmed to improve both participation and labour productivity. As such, the book offers a valuable resource not only for researchers, but also for NGOs and policymakers.
Mathematical Models is a component of Encyclopedia of Mathematical Sciences in the global

Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The Theme on Mathematical Models discusses matters of great relevance to our world such as: Basic Principles of Mathematical Modeling; Mathematical Models in Water Sciences; Mathematical Models in Energy Sciences; Mathematical Models of Climate and Global Change; Infiltration and Ponding; Mathematical Models of Biology; Mathematical Models in Medicine and Public Health; Mathematical Models of Society and Development. These three volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

What changes are occurring at the macro and the sectoral levels, how the labour market changes are taking place and what impact is felt on the low income households are some of the questions that the present volume focuses on. It begins by examining the sectoral composition of growth, revisiting the issues related to industry-services balance, and also brings out the spatial dimension of growth. On the one hand the industry does not seem to have played a major role in the context of employment generation as imported technology is by and large capital intensive in nature. On the other hand, the services-led growth is seen to have reduced the pace of poverty reduction. Given the services-led growth the possible impact of trade in services on employment both in the formal and informal sectors have been worked out, indicating limited positive spill-over effects. The labour market outcomes are brought out with great details suggesting that rapid economic growth in India could not result in productive employment generation on a large scale. The gender dimensions of employment are brought out to verify if reduction in labour market inequality can result in improving the position of

women in other spheres encompassing the decision making process both within the household and outside the household. Issues relating to urbanisation and rural-urban migration are also covered to understand the dynamics of urban poverty and to bring out the challenges of population transfer given the spatial concentration of growth. The job search practices pursued by the low income households are often pursued in terms of informal networks. What problems are associated with such mechanisms in experiencing improvements in wellbeing levels are covered in the present volume. On the whole, the volume offers an explanation of limited poverty reduction in a situation of rapid economic growth on the basis of an inter-disciplinary framework though efforts are being made to keep the methodology quantitatively rigorous. ? The Jevons Paradox, which was first expressed in 1865 by William Stanley Jevons in relation to use of coal, states that an increase in efficiency in using a resource leads to increased use of that resource rather than to a reduction. This has subsequently been proved to apply not just to fossil fuels, but other resource use scenarios. For example, doubling the efficiency of food production per hectare over the last 50 years (due to the Green Revolution) did not solve the problem of hunger. The increase in efficiency increased production and worsened hunger because of the resulting increase in population. The implications of this in todays world are substantial. Many scientists and policymakers argue that future technological innovations will reduce consumption of resources; the Jevons Paradox explains why this may be a false hope. This is the first book to provide a historical overview of the Jevons Paradox, provide evidence for its existence and apply it to complex systems. Written and edited by world experts in the fields of economics, ecological economics, technology and the environment, it explains the myth of efficiency and explores its implications for resource usage (particularly oil). It is a must-

read for policymakers, natural resource managers, academics and students concerned with the effects of efficiency on resource use.

This book conceptualizes the nature of mathematical modeling in the early grades from both teaching and learning perspectives. Mathematical modeling provides a unique opportunity to engage elementary students in the creative process of mathematizing their world. A diverse community of internationally known researchers and practitioners share studies that advance the field with respect to the following themes: The Nature of Mathematical Modeling in the Early Grades Content Knowledge and Pedagogy for Mathematical Modeling Student Experiences as Modelers Teacher Education and Professional Development in Modeling Experts in the field provide commentaries that extend and connect ideas presented across chapters. This book is an invaluable resource in illustrating what all young children can achieve with mathematical modeling and how we can support teachers and families in this important work.

Features modern research and methodology on the spread of infectious diseases and showcases a broad range of multi-disciplinary and state-of-the-art techniques on geo-simulation, geo-visualization, remote sensing, metapopulation modeling, cloud computing, and pattern analysis Given the ongoing risk of infectious diseases worldwide, it is crucial to develop appropriate analysis methods, models, and tools to assess and predict the spread of disease and evaluate the risk. Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases features mathematical

and spatial modeling approaches that integrate applications from various fields such as geo-computation and simulation, spatial analytics, mathematics, statistics, epidemiology, and health policy. In addition, the book captures the latest advances in the use of geographic information system (GIS), global positioning system (GPS), and other location-based technologies in the spatial and temporal study of infectious diseases. Highlighting the current practices and methodology via various infectious disease studies, Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases features: Approaches to better use infectious disease data collected from various sources for analysis and modeling purposes Examples of disease spreading dynamics, including West Nile virus, bird flu, Lyme disease, pandemic influenza (H1N1), and schistosomiasis Modern techniques such as Smartphone use in spatio-temporal usage data, cloud computing-enabled cluster detection, and communicable disease geo-simulation based on human mobility An overview of different mathematical, statistical, spatial modeling, and geo-simulation techniques Analyzing and Modeling Spatial and Temporal Dynamics of Infectious Diseases is an excellent resource for researchers and scientists who use, manage, or analyze infectious disease data, need to learn various traditional and advanced analytical methods and modeling techniques, and become aware of different issues and challenges related to infectious disease modeling and simulation. The book is also a useful textbook and/or supplement for upper-undergraduate and graduate-level courses in bioinformatics, biostatistics,

public health and policy, and epidemiology.

This updated and revised edition outlines strategies and models for how to use technology and knowledge to improve performance, create jobs and increase income. It shows what skills will be required to produce, sell and manage performance over time, and how manual jobs can contribute to reduce the consumption of non-renewable resources.

This work is dedicated to Wassiliy Leontief's concepts of Input-Output Analysis and to the algebraic properties of Piero Sraffa's seminal models described consequently by matrix algebra and the Perron-Frobenius Theorem. Detailed examples and visualizing graphs are presented for applications of various mathematical methods.

This book answers some challenging questions in monetary growth theory within a compact theoretical framework. The author succeeds in integrating the theory of money, the theory of value and the theory of growth. The book re-examines many important ideas in modern monetary economics within a single analytical framework. It is concerned not only with traditional one-sector growth models of a homogeneous population with endogenous capital and knowledge, but also with multi-sector models, economies with heterogeneous households, and economies with urban structures, interregional interactions and international trade. Zhang's book will appeal to those studying monetary economics, neoclassical growth theory, development economics and international economics. It is also useful more generally, for researchers in social

sciences with an interest in the role of money in modern societies.
Mathematics has become indispensable in the modelling of economics, finance, business and management. Without expecting any particular background of the reader, this book covers the following mathematical topics, with frequent reference to applications in economics and finance: functions, graphs and equations, recurrences (difference equations), differentiation, exponentials and logarithms, optimisation, partial differentiation, optimisation in several variables, vectors and matrices, linear equations, Lagrange multipliers, integration, first-order and second-order differential equations. The stress is on the relation of maths to economics, and this is illustrated with copious examples and exercises to foster depth of understanding. Each chapter has three parts: the main text, a section of further worked examples and a summary of the chapter together with a selection of problems for the reader to attempt. For students of economics, mathematics, or both, this book provides an introduction to mathematical methods in economics and finance that will be welcomed for its clarity and breadth. Hydrological Systems Modeling is a component of Encyclopedia of Water Sciences, Engineering and Technology Resources in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. This 2-volume set contains several chapters, each of size 5000-30000 words, with perspectives, applications and extensive illustrations. It carries state-of-the-art knowledge in the fields of Hydrological Systems Modeling and is aimed, by virtue of the several applications, at the following five major target audiences: University and College Students, Educators, Professional

Practitioners, Research Personnel and Policy Analysts, Managers, and Decision Makers and NGOs.

This volume documents on-going research and theorising in the sub-field of mathematics education devoted to the teaching and learning of mathematical modelling and applications. Mathematical modelling provides a way of conceiving and resolving problems in the life world of people whether these range from the everyday individual numeracy level to sophisticated new problems for society at large. Mathematical modelling and real world applications are considered as having potential for multi-disciplinary work that involves knowledge from a variety of communities of practice such as those in different workplaces (e.g., those of educators, designers, construction engineers, museum curators) and in different fields of academic endeavour (e.g., history, archaeology, mathematics, economics). From an educational perspective, researching the development of competency in real world modelling involves research situated in crossing the boundaries between being a student engaged in modelling or mathematical application to real word tasks in the classroom, being a teacher of mathematical modelling (in or outside the classroom or bridging both), and being a modeller of the world outside the classroom. This is the focus of many of the authors of the chapters in this book. All authors of this volume are members of the International Community of Teachers of Mathematical Modelling (ICTMA), the peak research body into researching the teaching and learning of mathematical modelling at all levels of education from the early years to tertiary education as well as in the workplace.

This is a collection of essays by 16 renowned Indian economists on contemporary issues linked to India's economic development. These essays were originally presented in a

conference organized to commemorate the birth centenary of Prof V K R V Rao (1908-1991), one of the foremost Indian social scientists and institution builders of the twentieth century. He was the founder of the Delhi School of Economics and the Institute of Economic Growth in Delhi and the Institute of Social and Economic Change in Bangalore.

The development of international trade theory has created a wide array of different theories, concepts and results. Nevertheless, trade theory has been split between partial and conflicting representations of international e- nomic interactions. Diverse trade models have co-existed but not in a structured relationship with each other. Economic students are introduced to international economic interactions with severally incompatible theories in the same course. In order to overcome incoherence among multiple theories, we need a general theoretical framework in a unified manner to draw together all of the disparate branches of trade theory into a single - ganized system of knowledge. This book provides a powerful – but easy to operate - engine of analysis that sheds light not only on trade theory per se, but on many other dim- sions that interact with trade, including inequality, saving propensities, education, research policy, and knowledge. Building and analyzing various tractable and flexible models within a compact whole, the book helps the reader to visualize economic life as an endless succession of physical ca- tal accumulation, human capital accumulation, innovation wrought by competition, monopoly and government intervention. The book starts with the traditional static trade theories. Then, it develops dynamic models with capital and knowledge under perfect competition and/or monopolistic competition. The uniqueness of the book is about modeling trade dyn- ics.

For any organization to be successful, it must operate in such a manner that knowledge and

information, human resources, and technology are continually taken into consideration and managed effectively. Business concepts are always present regardless of the field or industry – in education, government, healthcare, not-for-profit, engineering, hospitality/tourism, among others. Maintaining organizational awareness and a strategic frame of mind is critical to meeting goals, gaining competitive advantage, and ultimately ensuring sustainability. The Encyclopedia of Organizational Knowledge, Administration, and Technology is an inaugural five-volume publication that offers 193 completely new and previously unpublished articles authored by leading experts on the latest concepts, issues, challenges, innovations, and opportunities covering all aspects of modern organizations. Moreover, it is comprised of content that highlights major breakthroughs, discoveries, and authoritative research results as they pertain to all aspects of organizational growth and development including methodologies that can help companies thrive and analytical tools that assess an organization's internal health and performance. Insights are offered in key topics such as organizational structure, strategic leadership, information technology management, and business analytics, among others. The knowledge compiled in this publication is designed for entrepreneurs, managers, executives, investors, economic analysts, computer engineers, software programmers, human resource departments, and other industry professionals seeking to understand the latest tools to emerge from this field and who are looking to incorporate them in their practice. Additionally, academicians, researchers, and students in fields that include but are not limited to business, management science, organizational development, entrepreneurship, sociology, corporate psychology, computer science, and information technology will benefit from the research compiled within this publication.

Mathematical Models of Life Support Systems is a component of Encyclopedia of Mathematical Sciences in which is part of the global Encyclopedia of Life Support Systems (EOLSS), an integrated compendium of twenty one Encyclopedias. The Theme is organized into several topics which represent the main scientific areas of the theme: The first topic, Introduction to Mathematical Modeling discusses the foundations of mathematical modeling and computational experiments, which are formed to support new methodologies of scientific research. The succeeding topics are Mathematical Models in - Water Sciences; Climate; Environmental Pollution and Degradation; Energy Sciences; Food and Agricultural Sciences; Population; Immunology; Medical Sciences; and Control of Catastrophic Processes. These two volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

This book deals with methods to evaluate scientific productivity. In the book statistical methods, deterministic and stochastic models and numerous indexes are discussed that will help the reader to understand the nonlinear science dynamics and to be able to develop or construct systems for appropriate evaluation of research productivity and management of research groups and organizations. The dynamics of science structures and systems is complex, and the evaluation of research productivity requires a combination of qualitative and quantitative methods and measures. The book has three parts. The first part is devoted to mathematical models describing the importance of science for economic growth and systems for the evaluation of research

organizations of different size. The second part contains descriptions and discussions of numerous indexes for the evaluation of the productivity of researchers and groups of researchers of different size (up to the comparison of research productivities of research communities of nations). Part three contains discussions of non-Gaussian laws connected to scientific productivity and presents various deterministic and stochastic models of science dynamics and research productivity. The book shows that many famous fat tail distributions as well as many deterministic and stochastic models and processes, which are well known from physics, theory of extreme events or population dynamics, occur also in the description of dynamics of scientific systems and in the description of the characteristics of research productivity. This is not a surprise as scientific systems are nonlinear, open and dissipative.

Probability and Statistics theme is a component of Encyclopedia of Mathematical Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The Theme with contributions from distinguished experts in the field, discusses Probability and Statistics. Probability is a standard mathematical concept to describe stochastic uncertainty. Probability and Statistics can be considered as the two sides of a coin. They consist of methods for modeling uncertainty and measuring real phenomena. Today many important political, health, and economic decisions are based on statistics. This theme is structured in five main topics: Probability and Statistics; Probability Theory; Stochastic Processes and

Random Fields; Probabilistic Models and Methods; Foundations of Statistics, which are then expanded into multiple subtopics, each as a chapter. These three volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs.

Future Sustainable Ecosystems: Complexity, Risk, Uncertainty provides an interdisciplinary, integrative overview of environmental problem-solving using statistics. It shows how statistics can be used to solve diverse environmental and socio-economic problems involving food, water, energy scarcity, and climate change risks. It synthesizes interdisciplinary theory, concepts, definitions, models and findings involved in complex global sustainability problem-solving, making it an essential guide and reference. It includes real-world examples and applications making the book accessible to a broader interdisciplinary readership. Discussions include a broad, integrated perspective on sustainability, integrated risk, multi-scale changes and impacts taking place within ecosystems worldwide. State-of-the-art statistical techniques, including Bayesian hierarchical, spatio-temporal, agent-based and game-theoretic approaches are explored. The author then focuses on the real-world integration of observational and experimental data and its use within statistical models. The book clarifies how complex adaptive systems theory frames sustainability as a probabilistic (i.e., stochastic) problem, highlighting the importance of adaptive policy, science and

institutional arrangements, for strengthening ecosystem adaptation and resilience. The author elucidates how we must transform our thinking, illuminating the benefits and opportunities offered by the integrative risk approach to innovation and learning in the Cognitive/Risk Era. The book highlights the importance of statistics in guiding, designing and delivering real-world solutions and helping to unravel the complex array of tradeoffs, uncertainties, inter-dependencies and unforeseen risks.
Social and Economic Development is a component of Encyclopedia of Development and Economic Sciences in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The Theme on Social and Economic Development provides the essential aspects and a myriad of issues of great relevance to our world such as: Socioeconomic Developmental Social Work; Perspectives on Contemporary Socioeconomic Development; Sustainable Development of Natural Resource Capital; Sustainable Development Of Human Resource Capital; Intellectual And Knowledge Capital For Sustainable Development At Local, National, Regional, And Global Levels; Economic And Financial System Development Information And Knowledge; Institutional And Infrastructure System Development Information And Knowledge; Basic Principles Of Sustainable Development; Environmental Economics And Sustainable Development; Implementing Sustainable Development In A Changing World; Economic Sociology: Its History And Development; The Socioeconomics Of Agriculture; Agricultural And Rural Geography;

Impact Of Global Change On Agriculture; Human Nutrition: An Overview; The Role Of Inter- And Nongovernmental Organizations; Nongovernmental Organizations; Social And Cultural Development Of Human Resources. This 8-volume set contains several chapters, each of size 5000-30000 words, with perspectives, issues on social and Economic Development. These volumes are aimed at the following five major target audiences: University and College students Educators, Professional practitioners, Research personnel and Policy analysts, managers, and decision makers and NGOs. Water Resources Management is a component of Encyclopedia of Water Sciences, Engineering and Technology Resources in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. This 2-volume set contains several chapters, each of size 5000-30000 words, with perspectives, applications and extensive illustrations. It carries state-of-the-art knowledge in the fields of Water Resources Management and presents an integrated water resources management, water and sustainable development, water scarcity, and the more technical aspects of water resources planning. Important issues related to international rivers, the economics of water, and the legal and institutional aspects of water are addressed. And new approaches to water conservation, non-waterborne sanitation, and economic valuation are presented. These two volumes are aimed at the following five major target audiences: University and College Students Educators, Professional Practitioners, Research Personnel and Policy Analysts, Managers, and

Decision Makers, NGOs and GOs.

'The Jevons Paradox', which was first expressed in 1865 by William Stanley Jevons in relation to use of coal, states that an increase in efficiency in using a resource leads to increased use of that resource rather than to a reduction. This has subsequently been proved to apply not just to fossil fuels, but other resource use scenarios. For example, doubling the efficiency of food production per hectare over the last 50 years (due to the Green Revolution) did not solve the problem of hunger. The increase in efficiency increased production and worsened hunger because of the resulting increase in population. The implications of this in today's world are substantial. Many scientists and policymakers argue that future technological innovations will reduce consumption of resources; the Jevons Paradox explains why this may be a false hope. This is the first book to provide a historical overview of the Jevons Paradox, provide evidence for its existence and apply it to complex systems. Written and edited by world experts in the fields of economics, ecological economics, technology and the environment, it explains the myth of efficiency and explores its implications for resource usage (particularly oil). It is a must-read for policymakers, natural resource managers, academics and students concerned with the effects of efficiency on resource use.

This collection of writings provides the only comprehensive introduction to the input-output model for which Leontief was awarded the Nobel Prize in 1973. The structural approach to economics developed by Leontief, and known as input-output analysis, paved the way for the

transformation of economics into a truly empirical discipline that could utilize modern data processing technology. This thoroughly revised second edition includes twenty essays--twelve of which are new to this edition--that reflect the past developments and the present state of the field. Beginning with an introductory chapter, the book leads the reader into an understanding of the input-output approach--not only as formal theory but also as a research strategy and powerful tool for dealing with a complex modern economy.

The book explores, for India and other developing countries, the potential role the organized manufacturing sector could play as an engine of growth. Alongside growth, can this sector generate adequate employment opportunities to facilitate the transfer of labour from the agriculture sector? The book identifies the major constraints that result in limited demand for labour in the organised manufacturing sector. Beyond technological aspects, skill shortage is an important factor, resulting in sluggish labour absorption. Further, the labour market laws are not necessarily the root cause of sluggish employment growth in the organised manufacturing sector. The development of technologies that are appropriate for labour surplus countries like India is instrumental to employment creation. Though innovation is generally assumed to be capital-intensive in nature, the book argues that innovation nevertheless has a positive effect on employment in absolute terms. Lastly, the main policy issues are highlighted in terms of the priority that should be assigned to industries which can contribute to employment growth and skill formation for improving the employability of the available labour force, and to which innovations should be pursued, with a specific focus on pro-poor growth objectives.

"Highly recommended. . . . This is an important book in putting the burgeoning field of sociodynamics on a solid footing."—Journal of Artificial Societies and Social Simulation This text

deals with general modelling concepts in the social sciences, their applications, and their mathematical methods. The author's well-organized approach offers a clear, coherent introduction to terminology, approaches, and goals in modelling. Appropriate for advanced undergraduates and graduate students, it requires a solid background in algebra and calculus. The three-part treatment begins by addressing general modelling concepts, the second part provides applications, and the third discusses mathematical method. Topics include population dynamics, group interaction, political transitions, evolutionary economics, and urbanization. Guiding students through a series of practical applications that illustrate the methods' potential scope, the text concludes with a detailed look at mathematical methods.

The book, Sustainability and Resources: Theoretical Issues in Dynamic Economics, presents a collection of mathematical models dealing with sustainability and resource management.The focus in Part A is on harvesting renewable resources, while Part B explores the optimal extraction of exhaustible resources. Part C introduces models dealing with uncertainty. Some are descriptive models; others have deep roots in intertemporal welfare economics. The tools of dynamic optimization developed in the 1960s are used in a formal, rigorous presentation to address wide-ranging issues that have appeared in academic research as well as policy debates on the world stage.The book also provides a self-contained treatment that is accessible to advanced undergraduate and graduate students, who are interested in dynamic models of resource allocation and social welfare, resource management, and applications of optimization theory and methods of probability theory to economics. For researchers in dynamic economics, it will be an invaluable source for formal treatment of substantive macroeconomic issues raised by policymakers. The part dealing with uncertainty and random

dynamical systems (largely developed by the author and his collaborators) exposes the reader to contemporary frontiers of research on stochastic processes with novel applications to economic problems.

The construction of mathematical models is an essential scientific activity. Mathematics is associated with developments in science and engineering, but more recently mathematical modelling has been used to investigate complex systems that arise in other fields. This book demonstrates the application of mathematics to research topics in ecology and environmental science, health and medicine, phylogenetics and neural networks, theoretical chemistry, economics and management.

This book develops a general economic theory that integrates various economic theories and ideas and establishes important relationships between economic variables that are not formally recognized in the economic literature. The author demonstrates how the basic model is integrated with neoclassical growth theory, Walrasian general equilibrium theory, and Ricardian distribution theory, and how these theories can be incorporated through a single set of equations with a microeconomic basis. The book offers new insights into income and wealth distribution between heterogeneous households, racial and national differences in growth and development, interdependence between different stock variables with portfolio choices among different markets. It will appeal to scholars of economists interested in an integrative theoretical approach to this discipline.