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Complex Economic Dynamics An Introduction to Macroeconomic Dynamics Richard H. Day was one of the first economists to recognize the importance of complex dynamics, or chaos theory, to economics. He can justly be described as one of the originators of the now extensive economic literature on chaos.The two volumes of Complex Economic Dynamics show that, far from being a passing trend in economic research, complex dynamics belongs at the heart of the subject. Although they can be read independently, the volumes follow a logical sequence. Volume 1 contained nontechnical introductions to the basics of economic change and to the mathematical and theoretical tools used to describe them. Volume 2, which is concerned with macroeconomic dynamics, looks at the economy as a whole. Topics include business cycles, economic growth, economic development, and dynamical economic science and policy. The book concludes with the author's reflections on the implications of complex dynamics for economic theory, quantitative research, and government policy. Complex Economic Dynamics: An introduction to macroeconomic dynamics MIT Press **Richard H. Day was one of the first economists to recognize the importance of complex dynamics, or chaos theory, to economics. He can justly be described as one of the originators of the now**

extensive economic literature on chaos.The two volumes of Complex Economic Dynamics show that, far from being a passing trend in economic research, complex dynamics belongs at the heart of the subject. Although they can be read independently, the volumes follow a logical sequence. Volume 1 contained nontechnical introductions to the basics of economic change and to the mathematical and theoretical tools used to describe them. Volume 2, which is concerned with macroeconomic dynamics, looks at the economy as a whole. Topics include business cycles, economic growth, economic development, and dynamical economic science and policy. The book concludes with the author's reflections on the implications of complex dynamics for economic theory, quantitative research, and government policy. Complex Economic Dynamics: An introduction to dynamical systems and market mechanisms Studies in Dynamical Economic **"The two volumes of Complex Economic Dynamics show that, far from being a passing trend in economic research, complex dynamics belongs at the heart of the subject. Although they can be read independently, the volumes follow a logical sequence. Volume 1 contained nontechnical introductions to the basics of economic change and to the mathematical and theoretical tools used to describe them. Volume 2, which is concerned with macroeconomic dynamics, looks at the economy as a whole. Topics include business cycles, economic growth, economic development, and dynamical economic science and policy. The book concludes with the author's reflections on the implications of complex dynamics for economic theory, quantitative research, and government policy."--Pub. desc. Complex Systems Approach to Economic Dynamics** Springer Science & Business Media **Statistical analysis of stock markets and foreign exchange markets has demonstrated the intermittent nature of economic time series. A nonlinear model of business cycles is able to simulate intermittency arising from order-chaos and chaos-chaos transitions. This monograph introduces new concepts of unstable periodic orbits and chaotic saddles, which are unstable structures embedded in a chaotic attractor and responsible for economic intermittency. The Divergent Dynamics of Economic Growth Studies in Adaptive Economizing, Technological Change, and Economic Development** Cambridge University Press **This book explains how changing technology and economizing behaviour induce vast changes in productivity, resource allocation, labour utilization, and patterns of living. Economic growth is seen as a process by which businesses, regimes, countries, and the whole world pass through distinct epochs, each one emerging from its predecessor, each one creating the conditions for its successor. Viewed from a long-run perspective, growth must be characterized as an explosive process, marked by turbulent transitions in social and political life as societies adapt to new opportunities, the demise of old ways of living, and to the vast increase and redistribution of human populations. The book is based on a synthesis of classical economics and contemporary concepts of adaptation and economic evolution. Although it is based on analytical methods, the text**

has been stripped of all equations and with few exceptions is devoid of technical jargon. Economic Dynamics FriesenPress **Economics is considered as the commodity-financial exchange process. Two parallel networks are processed: commodity-production and financial. Economics is the set of the production-consumption elements and the channels or connections among them. Market is the transference process through the channels. The financial network processing is the reflection of the commodity-production network processing. The couples of the production and financial equations are based on the algebra of the multi-dimensional matrices. Different levels of the economics (micro-, macro-, global-) have the similar structures of difference dynamic equations. Methods in economic dynamics Methods for economic process analysis: prediction, control, estimation, planning, regulation, decision making** FriesenPress **Economic relations are considered as commodity-financial exchange process. Economic network is consisted of two parallel networks: commodity-production network and financial one. Economic network is the set of the production-consumption elements and the channels of connections among them. Market is the process of commodity transference through the channels. The financial network processing is the reflection of the commodity-production network processing. The pair of the production and financial equations is based on the algebra of cubic matrices. Different levels of the economics (micro-, macro-) have the similar structures of the difference equations which are the representation of economics as the dynamic systems in random media. Complex Economic Dynamics An introduction to macroeconomic dynamics Cycles, Growth and Structural Change** Routledge **This volume gathers together key new contributions on the subject of the relationship, both empirical and theoretical, between economic oscillations, growth and structural change. Employing a sophisticated level of mathematical modelling, the collection contains articles from, amongst others, William Baumol, Katsuhito Iwai and William Brock. Mathematical Economics Prelude to the Neoclassical Model** Springer Nature **This textbook provides a one-semester introduction to mathematical economics for first year graduate and senior undergraduate students. Intended to fill the gap between typical liberal arts curriculum and the rigorous mathematical modeling of graduate study in economics, this text provides a concise introduction to the mathematics needed for core microeconomics, macroeconomics, and econometrics courses. Chapters 1 through 5 builds students' skills in formal proof, axiomatic treatment of linear algebra, and elementary vector differentiation. Chapters 6 and 7 present the basic tools needed for microeconomic analysis. Chapter 8 provides a quick introduction to (or review of) probability theory. Chapter 9 introduces dynamic modeling, applicable in advanced macroeconomics courses. The materials assume prerequisites in undergraduate calculus and linear algebra. Each chapter includes in-text exercises and a solutions manual, making this text ideal for self-study. The Oxford Handbook of Post-Keynesian Economics, Volume 2 Critiques and Methodology** Oxford University Press **These two volumes cover**

the principal areas to which Post-Keynesian economists have made distinctive contributions. The contents include the significant criticism by Post-Keynesians of mainstream economics, but the emphasis is on positive Post-Keynesian analysis of the economic problems of the modern world and of policies with which to tackle them. Computable, Constructive & Behavioural Economic Dynamics Essays in Honour of Kumaraswamy (Vela) Velupillai Routledge **The book contains thirty original articles dealing with important aspects of theoretical as well as applied economic theory. While the principal focus is on: the computational and algorithmic nature of economic dynamics; individual as well as collective decision process and rational behavior, some contributions emphasize also the importance of classical recursion theory and constructive mathematics for dynamical systems, business cycles theories, growth theories, and others are in the area of history of thought, methodology and behavioural economics. The contributors range from Nobel Laureates to the promising new generation of innovative thinkers. This volume is also a Festschrift in honour of Professor Kumaraswamy Vela Velupillai, the founder of Computable Economics, a growing field of research where important results stemming from classical recursion theory and constructive mathematics are applied to economic theory. The aim and hope is to provide new tools for economic modelling. This book will be of particular appeal to postgraduate students and scholars in one or more of the following fields: computable economics, business cycles, macroeconomics, growth theories, methodology, behavioural economics, financial economics, experimental and agent based economics. It might be also of importance to those interested on the general theme of algorithmic foundations for social sciences. Mathematical and Statistical Methods for Insurance and Finance** Springer Science & Business Media **The interaction between mathematicians and statisticians reveals to be an effective approach to the analysis of insurance and financial problems, in particular in an operative perspective. The Maf2006 conference, held at the University of Salerno in 2006, had precisely this purpose and the collection published here gathers some of the papers presented at the conference and successively worked out to this aim. They cover a wide variety of subjects in insurance and financial fields. Discrete and Continuous Simulation Theory and Practice** CRC Press **When it comes to discovering glitches inherent in complex systems—be it a railway or banking, chemical production, medical, manufacturing, or inventory control system—developing a simulation of a system can identify problems with less time, effort, and disruption than it would take to employ the original. Advantageous to both academic and industrial practitioners, Discrete and Continuous Simulation: Theory and Practice offers a detailed view of simulation that is useful in several fields of study. This text concentrates on the simulation of complex systems, covering the basics in detail and exploring the diverse aspects, including continuous event simulation and optimization with simulation. It explores the connections between discrete and continuous simulation, and applies a specific focus to simulation in the**

supply chain and manufacturing field. It discusses the Monte Carlo simulation, which is the basic and traditional form of simulation. It addresses future trends and technologies for simulation, with particular emphasis given to .NET technologies and cloud computing, and proposes various simulation optimization algorithms from existing literature. Includes chapters on input modeling and hybrid simulation Introduces general probability theory Contains a chapter on Microsoft® ExcelTM and MATLAB®/Simulink® Discusses various probability distributions required for simulation Describes essential random number generators Discrete and Continuous Simulation: Theory and Practice defines the simulation of complex systems. This text benefits academic researchers in industrial/manufacturing/systems engineering, computer sciences, operations research, and researchers in transportation, operations management, healthcare systems, and human–machine systems. Journal of Economic Literature Connectionist Approaches in Economics and Management Sciences Springer Science & Business Media **Since the beginning of the 1980's, a lot of news approaches of biomimetic inspiration have been defined and developed for imitating the brain behavior, for modeling non linear phenomenon, for providing new hardware architectures, for solving hard problems. They are named Neural Networks, Multilayer Perceptrons, Genetic algorithms, Cellular Automates, Self-Organizing maps, Fuzzy Logic, etc. They can be summarized by the word of Connectionism, and consist of an interdisciplinary domain between neuroscience, cognitive science and engineering. First they were applied in computer sciences, engineering, biological models, pattern recognition, motor control, learning algorithms, etc. But rapidly, it appeared that these methods could be of great interest in the fields of Economics and Management Sciences. The main difficulty was the distance between researchers, the difference in the vocabulary used by the ones and the others, their basic background. The main notions used by these new techniques were not familiar to the Social and Human Sciences researchers. What are they ? Four of them are now very briefly introduced, but the reader will find more information in the following chapters. Differential Rates, Residual Information Sets and Transactional Algebras** Nova Publishers **The purpose of this paper is to model differential rates over residual information sets, so as to shape transactional algebras into operational grounds. Firstly, simple differential rates over residual information sets are introduced by taking advantage of finite algebras of sets. Secondly, after contextual sets and the relevant algebra of information sets is duly fashioned, generalized differential rates over residual information sets are expanded on, while a recursive algorithm is set forth to characterize such rates and sets. Thirdly, the notion of transactional algebra is presented and heed is given to the costs of running such structure. Finally, an application to financial arbitrage processes is fully developed within a transactional algebra, setting up arbitrage returns net of transaction costs, establishing boundary**

conditions for an arbitrage to take place, and finally allowing for a definition of what should be meant by financial arbitrage within a transactional algebra. The Logistic Map and the Route to Chaos From the Beginnings to Modern Applications Springer Science & Business Media **This title is included in the Springer Complexity program Nonlinearity, Complexity and Randomness in Economics Towards Algorithmic Foundations for Economics** John Wiley & Sons **Nonlinearity, Complexity and Randomness in Economicspresents a variety of papers by leading economists, scientists, andphilosophers who focus on different aspects of nonlinearity,complexity and randomness, and their implications for economics. Atheme of the book is that economics should be based on algorithmic,computable mathematical foundations. Features an interdisciplinary collection of papers byeconomists, scientists, and philosophers Presents new approaches to macroeconomic modelling, agent-basedmodelling, financial markets, and emergent complexity Reveals how economics today must be based on algorithmic,computable mathematical foundations Attractors, Bifurcations, and Chaos Nonlinear Phenomena in Economics** Springer Science & Business Media **Attractors, Bifurcations, & Chaos - now in its second edition - begins with an introduction to mathematical methods in modern nonlinear dynamics and deals with differential equations. Phenomena such as bifurcations and deterministic chaos are given considerable emphasis, both in the methodological part, and in the second part, containing various applications in economics and in regional science. Coexistence of attractors and the multiplicity of development paths in nonlinear systems are central topics. The applications focus on issues such as business cycles, oligopoly, interregional trade dynamics, and economic development theory. Elgar Companion to Neo-Schumpeterian Economics** Edward Elgar Publishing **The Elgar Companion to Neo-Schumpeterian Economics is a cutting-edge collection of specially commissioned contributions highlighting not only the broad scope but also the common ground between all branches of this prolific and fast developing field of economics. For 25 years economists have been investigating industrial dynamics under the heading of neo-Schumpeterian economics, which has itself become a mature and widely acknowledged discipline in the fields of innovation, knowledge, growth and development economics. The Elgar Companion to Neo-Schumpeterian Economics surveys the achievements of the most visible scholars in this area. The contributions to the Companion give both a brief survey on the various fields of neo-Schumpeterian economics as well as insights into recent research at the scientific frontiers. The book also illustrates the potential of neo-Schumpeterian economics to overcome its so far self-imposed restriction to the domains of technology driven industry dynamics, and to become a comprehensive approach in economics suited for the analysis of development processes in all economic domains. Integrating both the public sector and financial markets, the book focusses on the co-evolutionary processes between the different domains. As a**

roadmap for the development of a comprehensive neo-Schumpeterian theory, the Companion will be an invaluable source of reference for researchers in the fields of industrial dynamics and economic growth, and academics and scholars of economics generally. PhD students will find the Companion an indispensable general introduction to the field of neo-Schumpeterian economics. It will also appeal to politicians and consultants engaged in national and international policy as the Companion deals with the highly important and ever topical phenomena of economic development. Adaptive Learning by Genetic Algorithms Analytical Results and Applications to Economic Models Springer Science & Business Media **The fact that I have the opportunity to present a second edition of this monograph is an indicator for the growing size of the community concerned with agent-based computational economics. The rapid developments in this field make it very difficult to keep a volume like this, which is partly devoted to surveying the literature, up to date. I have done my best to incorporate the relevant new developments in this revised edition but it is in the nature of such a work that the selection of material covered is biased by the authors personal interest and his informational constraints. My apologies go to all researchers in this field whose work is not or not adequately represented in this book. Besides the correction of some errors and typos several additions have been made. In the literature survey sections 2.4 (which was also reorganized) and 3.5 new material was added. I have also added a new section in chapter 3 which deals with the question how well empirically observed phenomena can be explained by GA simulations. A new section in chapter 6 presents a rather extensive analysis of the behavior of a two population GA in the framework of a sealed bid double auction market. Further minor additions and changes were made throughout the text. Complex Systems in Finance and Econometrics** Springer Science & Business Media **Finance, Econometrics and System Dynamics presents an overview of the concepts and tools for analyzing complex systems in a wide range of fields. The text integrates complexity with deterministic equations and concepts from real world examples, and appeals to a broad audience. Understanding Economic Change Advances in Evolutionary Economics** Cambridge University Press **Shows how thinking in evolutionary terms enhances our understanding of the economic and social change taking place at all levels. The Oxford Handbook of Computational Economics and Finance** Oxford University Press **This is an insightful survey of approaches to computational analysis of economics and finance. Choice Publication of the Association of College and Research Libraries, a Division of the American Library Association European Economics at a Crossroads** Edward Elgar Publishing **As Europe moves toward an integrated academic system, European economics is changing. This book discusses that change, along with the changes that are happening simultaneously within the economics profession. The authors argue that modern economics can no longer usefully be described as neoclassical , but is much better described as complexity economics.**

The complexity approach embraces rather than assumes away the complexities of social interaction. The authors also argue that despite all the problems with previous European academic structures, those structures allowed for more diversity than exists in US universities, and thus were often ahead of US universities in exploring new cutting-edge approaches. The authors further argue that by trying to judge themselves by US-centric measures and to copy US universities, the European economics profession is undermining some of the strengths of the older system strengths on which it should be building. While the authors agree that European economics needs to go through major changes in the coming decade, they argue that by building on Europe s strengths, rather than trying to follow a US example, Europe will be more likely to become the global leader in economics in the coming decades rather than a second-rate copy of the US. The book begins with two chapters spelling out the authors view of the changes in economics and European economics. This is followed by 11 interviews with a diverse set of innovative European economists from a range of European countries. In the interviews these European economists reflect on the ongoing changes in economics generally and in European economics specifically. These interviews demonstrate how the economics profession is moving away from traditional neoclassical economics into a dynamic set of new methods and approaches (incorporating work in behavioral economics, experimental economics, evolutionary game theory and ecological approaches, complexity and nonlinear dynamics, methodological analysis, and agent-based modelling) that the authors classify as complexity economics. This fascinating and easy-to-read book will prove a stimulating and thought-provoking read for those with an interest in economics, European education, and the nature of academic disciplines generally. What is so Austrian about Austrian Economics? Emerald Group Publishing **The volume gathers together papers presented at the second biennial Wirth conference on Austrian economics, held in October 2008 when the crisis of Fall 2008 was still new and shocking. This coincidence of timing makes policy issues and crisis management a kind of leitmotif of the volume. Handbook of Research Methods and Applications in Heterodox Economics** Edward Elgar Publishing **Despite the important methodological critiques of the mainstream offered by heterodox economics, the dominant research method taught in heterodox programmes remains econometrics. This compelling Handbook provides a comprehensive introduction to a range of alternative research methods, invaluable for analysing the data prominent in heterodox studies. Providing a solid basis for a mixed methods approach to economic investigations, the expertly crafted contributions are split into three distinct sections: philosophical foundation and research strategy, research methods and data collection, and applications. Introductions to a host of invaluable methods such as survey, historical, ethnographic, experimental and mixed approaches, together with factor, cluster, complex and social network analytics, are complemented by descriptions of**

applications in practice. Practical and expansive, this Handbook is highly pertinent for students and scholars of economics, particularly those dedicated to heterodox approaches, as it provides a solid reference for mixed methods not available in mainstream economics research methods courses. Complexity in Economics: Cutting Edge Research Springer **In this book, leading experts discuss innovative components of complexity theory and chaos theory in economics. The underlying perspective is that investigations of economic phenomena should view these phenomena not as deterministic, predictable and mechanistic but rather as process dependent, organic and always evolving. The aim is to highlight the exciting potential of this approach in economics and its ability to overcome the limitations of past research and offer important new insights. The book offers a stimulating mix of theory, examples and policy. By casting light on a variety of topics in the field, it will provide an ideal platform for researchers wishing to deepen their understanding and identify areas for further investigation. The American Economic Review Includes papers and proceedings of the annual meeting of the American Economic Association. Covers all areas of economic research. Behavioral Rationality and Heterogeneous Expectations in Complex Economic Systems** Cambridge University Press **Recognising that the economy is a complex system with boundedly rational interacting agents, the book presents a theory of behavioral rationality and heterogeneous expectations in complex economic systems and confronts the nonlinear dynamic models with empirical stylized facts and laboratory experiments. The complexity modeling paradigm has been strongly advocated since the late 1980s by some economists and by multidisciplinary scientists from various fields, such as physics, computer science and biology. More recently the complexity view has also drawn the attention of policy makers, who are faced with complex phenomena, irregular fluctuations and sudden, unpredictable market transitions. The complexity tools - bifurcations, chaos, multiple equilibria - discussed in this book will help students, researchers and policy makers to build more realistic behavioral models with heterogeneous expectations to describe financial market movements and macro-economic fluctuations, in order to better manage crises in a complex global economy. Coping with the Complexity of Economics** Springer Science & Business Media **Throughout the history of economics, a variety of analytical tools have been borrowed from the so-called exact sciences. As Schoe?er (1955) puts it: “They have taken their mathematics and their ded- tive techniques from physics, their statistics from genetics and agr- omy, their systems of classi?cation from taxonomy and chemistry, their model-construction techniques from astronomy and mechanics, and their methods of analysis of the consequences of actions from en- neering”. The possibility of similarities of structure in mathematical models of economic and physical systems has been an important f- tor in the development of neoclassical theory. To treat the state of an economy as an equilibrium, analogous to the equilibrium of a mech- ical system has been a key concept**

in economics ever since it became a mathematically formalized science. Adopting a Newtonian paradigm neoclassical economics often is based on three fundamental concepts. Firstly, the representative agent who is a scale model of the whole society with extraordinary capacities, particularly concerning her - pability of information processing and computation. Of course, this is a problematic reduction as agents are both heterogeneous and bou- edly rational and limited in their cognitive capabilities. Secondly, it often con?ned itself to study systems in a state of equilibrium. But this concept is not adequate to describe and to support phenomena in perpetual motion. 13th Chaotic Modeling and Simulation International Conference Springer Nature **Gathering the proceedings of the 13th CHAOS2020 International Conference, this book highlights recent developments in nonlinear, dynamical and complex systems. The conference was intended to provide an essential forum for Scientists and Engineers to exchange ideas, methods, and techniques in the field of Nonlinear Dynamics, Chaos, Fractals and their applications in General Science and the Engineering Sciences. The respective chapters address key methods, empirical data and computer techniques, as well as major theoretical advances in the applied nonlinear field. Beyond showcasing the state of the art, the book will help academic and industrial researchers alike apply chaotic theory in their studies. . Nonlinear and Convex Analysis in Economic Theory** Springer Science & Business Media **The papers collected in this volume are contributions to T.I.Tech./K.E.S. Conference on Nonlinear and Convex Analysis in Economic Theory, which was held at Keio University, July 2-4, 1993. The conference was organized by Tokyo Institute of Technology (T. I. Tech.) and the Keio Economic Society (K. E. S.) , and supported by Nihon Keizai Shimbun Inc .. A lot of economic problems can be formulated as constrained optimiza tions and equilibrations of their solutions. Nonlinear-convex analysis has been supplying economists with indispensable mathematical machineries for these problems arising in economic theory. Conversely, mathematicians working in this discipline of analysis have been stimulated by various mathematical difficulties raised by economic the ories. Although our special emphasis was laid upon "nonlinearity" and "con vexity" in relation with economic theories, we also incorporated stochastic aspects of financial economics in our project taking account of the remark able rapid growth of this discipline during the last decade. The conference was designed to bring together those mathematicians who were seriously interested in getting new challenging stimuli from economic theories with those economists who were seeking for effective mathematical weapons for their researches. Thirty invited talks (six of them were plenary talks) given at the conf- ence were roughly classified under the following six headings : 1) Nonlinear Dynamical Systems and Business Fluctuations, . 2) Fixed Point Theory, 3) Convex Analysis and Optimization, 4) Eigenvalue of Positive Operators, 5) Stochastic Analysis and Financial Market, 6) General Equilibrium Analysis. Focus on Macroeconomics Research** Nova Publishers **Macroeconomics is that**

part of economics that focuses on economic growth and economic fluctuations. In a world under the push and pull of globalisation, it becomes crucial for the Developed Countries as well as the Developing Countries. It is necessary for some countries and companies to find the best regions to invest in while it is necessary for others to grow and compete for investment at the same time. This new book brings together an impressive array of research valuable for providing important insight into the international financial currents rippling around the world. The Makers of Modern Economics Edward Elgar Pub **Leading figures in modern economic theory, from the US, the UK, and Japan, offer insights into their careers and their research to date, and consider future directions of economics as a discipline. They reflect on their development, problems and issues that have interested them, and individuals who influenced and guided them. The editor is professor of economics at the University of Amsterdam, The Netherlands. Annotation copyrighted by Book News, Inc., Portland, OR The US Economy and Neoliberalism Alternative Strategies and Policies** Routledge **In recent times, policy makers, scientists, academics and commentators have become increasingly nervous about the US economic downturn. Discussions have centred around the range and magnitude of the country's socio-economic problems, its vexing production decline and its unsatisfactory macroeconomic performance, which give rise to the following questions: what are the sources of this recent downfall? And can this situation be reversed by pursuing the same orthodox and neoliberal policies? This new edited volume, from a top international set of contributors, seeks to answer these questions and to offer alternative, realistic and feasible strategies and policy recommendations towards reversing this situation. In particular, the volume seeks to challenge US neoliberalism on theoretical and political grounds, and to offer alternative strategies and policies towards addressing the country's recent challenges and multi-dimensional problems. The volume is structured around three main themes: The return of government: Philosophical issues and ethics Economic policies for sustainable growth and prosperity Financial fragility and alternative monetary policy proposals This unique and highly topical, multidisciplinary volume, will be of great interest to students and researchers in the areas of economics, political economy and contemporary US politics. SYSTEM DYNAMICS - Volume I** EOLSS Publications **System Dynamics is a component of Encyclopedia of Technology, Information, and Systems Management Resources in the global Encyclopedia of Life Support Systems (EOLSS), which is an integrated compendium of twenty one Encyclopedias. The world is facing a wide range of increasingly complex, dynamic problems in the public and private arenas alike. System dynamics discipline is an attempt to address such dynamic, long-term policy problems. Applications cover a very wide spectrum, including national economic problems, supply chains, project management, educational problems, energy systems, sustainable development, politics, psychology, medical sciences, health care, and many other areas. This theme provides**

a comprehensive overview of system dynamics methodology, including its conceptual / philosophical framework, as well as the technical aspects of modeling and analysis. System dynamics can address the fundamental structural causes of the long-term dynamic contemporary socio-economic problems. Its "systems" perspective challenges the barriers that separate disciplines. The interdisciplinary and systemic approach of system dynamics could be critical in dealing with the increasingly complex problems of our modern world in this new century. 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. Agent Based Models for Economic Policy Advice Sonderausgabe von Heft 2+3/Bd. 228 Jahrbücher für Nationalökonomie und Statistik Walter de Gruyter GmbH & Co KG **This special issue of the Journal of Economics and Statistics is devoted to the use of agent-based models for economic policy advice. It presents a collection of research papers in different fields of applications. Special emphasis is laid on discussing the potential and possible limitations of agent-based models for economic policy advice. The editorial provides an overview on the role of agent-based modeling in economic policy referring also to the papers presented. Furthermore, it highlights the strength of the approach, i.e., the explicit microfoundation and the modeling of heterogenous agents. Finally, we also report on current limitations of the method with regard to economic policy advice and point at some areas deserving further research.**