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The complexity and volatility of energy markets creates strong demand for quantitative analysis and econometric techniques. This book offers an introduction to the state of the art in econometric modelling applied to the most pertinent issues in today's energy markets for a better understanding of the working of energy systems and energy economics.

Financial Economics and Econometrics provides an overview of the core topics in theoretical and empirical finance, with an emphasis on applications and interpreting results. Structured in five parts, the book covers financial data and univariate models; asset returns; interest rates, yields and spreads; volatility and correlation; and corporate finance and policy. Each chapter begins with a theory in financial economics, followed by econometric methodologies which have been used to explore the theory. Next, the chapter presents empirical evidence and discusses seminal papers on the topic. Boxes offer insights on how an idea can be applied to other disciplines such as management, marketing and medicine, showing the relevance of the material beyond finance. Readers are supported with plenty of worked examples and intuitive explanations throughout the book, while key takeaways, ‘test your knowledge’ and ‘test your intuition’ features at

the end of each chapter also aid student learning. Digital supplements including PowerPoint slides, computer codes supplements, an Instructor's Manual and Solutions Manual are available for instructors. This textbook is suitable for upper-level undergraduate and graduate courses on financial economics, financial econometrics, empirical finance and related quantitative areas.

This work describes and illustrates many advances that have taken place in a number of areas in theoretical and applied econometrics over the past four decades.

Much of a society's resources are devoted to dealing with, or preparing for the possibility of, crime. The dominance of concerns about crime also hint at the broader implications that offending has for many different facets of society. They suggest that rather than being an outlawed subset of social activity, crime is an integrated aspect of societal processes. This book reviews some of the direct and indirect social impacts of criminality, proposing that this is worthwhile, not just in terms of understanding crime, but also because of how it elucidates more general social considerations. A range of studies that examine the interactions between crime and society are brought together, drawing on a wide range of countries and cultures including India, Israel, Nigeria, Turkey, and the USA, as well as the UK and Ireland. They include contributions from many different social science

disciplines, which, taken together, demonstrate that the implicit and direct impact of crime is very widespread indeed. The chapters in this book were originally published as a special issue of Contemporary Social Science.

Commodities represent today the fastest growing markets worldwide. Historically misunderstood, generally under- studied and under- valued, certainly under-represented in the literature, commodities are suddenly receiving the attention they deserve. Bringing together some of the best authors in the field, this book focuses on the risk management issues associated with both soft and hard commodities: energy, weather, agriculturals, metals and shipping. Taking the reader through every part of the commodities markets, the authors discuss the intricacies of modelling spot and forward prices, as well as the design of new Futures markets. The book also looks at the use of options and other derivative contract forms for hedging purposes, as well as supply management in commodity markets. It looks at the implications for climate policy and climate research and analyzes the various freight derivatives markets and products used to manage shipping and freight risk in a global commodity world. It is required reading for energy and mining companies, utilities' practitioners, commodity and cash derivatives traders in investment banks, CTA's and hedge funds

This timely and comprehensive new Handbook brings together an unrivalled

group of distinguished scholars and practitioners to provide in-depth analysis and a contemporary perspective on a wide-ranging array of topics in maritime economics. Inherently global in nature, the economics of the maritime sector has proved pivotal in facilitating globalization and international trade. This Handbook offers a unique and indispensable source of reference and information for researchers, students and practitioners interested in the relationship between these developments and maritime markets.

International Academic Conferences: Teaching, Learning and E-learning (IAC-TLEl 2018) and Management, Economics and Marketing (IAC-MEM 2018) and Engineering, Transport, IT and Artificial Intelligence (IAC-ETITAI 2018)

Publisher Description

We investigate the power and size performance of unit root tests when the true data generating process undergoes Markov regime-switching. All tests, including those robust to a single break in trend growth rate, have very low power against a process with a Markov-switching trend growth rate as in Lam (1990). However, for the case of business cycle non-linearities, unit root tests are very powerful against models used as alternatives to Lam (1990) that specify regime-switching in the transitory component of output. Under the null hypothesis, the received literature documents size distortions in Dickey-Fuller type tests caused by a single break in trend growth rate or variance. We find these results do not generalize to most parameterizations of Markov-switching in

trend or variance. However, Markov-switching in variance can lead to over-rejection in tests robust to a single break in the level of trend.

The problems of exchange rate misalignments and the resulting payments imbalances have plagued the world economy for decades. At the Louvre Accord of 1987, the Group of Five industrial countries adopted a system of reference ranges for exchange rate management, influenced by proposals of C. Fred Bergstan and John Williamson for a target zone system. The reference range approach has, however, been operated only intermittently and half-heartedly, and questions continue to be raised in policy and scholarly circles about the design and operation of a full-fledged target zone regime. This volume, with chapters by leading international economists, explores one crucial issue in the design of a target zone system: the problem of calculating Williamson's concept of the fundamental equilibrium exchange rate (FEER). Williamson contributes an overview of the policy and analytic issues and a second chapter on his own calculations.

Structural health monitoring (SHM) has attracted more attention during the last few decades in many engineering fields with the main aim of avoiding structural disastrous events. This aim is achieved by using advanced sensing techniques and further data processing. SHM has experienced booming advancements during recent years due to the developments in sensing techniques. The reliable operation of current, sophisticated, man-made structures drives the development of incipient reliable

damage diagnosis and assessment. This book aims to illustrate the background and applications of SHM from both sensing and processing approaches. Its main objective is to summarize the advantages and disadvantages of SHM methodologies and their applications, which may provide a new perspective in understanding SHM for readers from diverse engineering fields.

?The central research objective of the dissertation is to assess the suitability of Social Responsible Investments (SRIs) as well as alternative investments for the strategic asset allocation of German Pension Insurance Funds (Pensionskassen). Using a Vector Error Correction model, we estimate the data generating process of the underlying input variables. A bootstrap simulation allows generating future return paths of the underlying portfolios. These return distributions will subsequently be used as input for different asset allocation strategies.The empirical results of our research study offer valuable conclusions: (1) SRI-structured portfolios consistently perform better than conventional portfolios, (2) including alternative investments has a beneficial effect on the risk-return distribution and (3) derivative overlay structures mitigate downside risk exposure without impacting average fund performance. In terms of alternative allocation models, (1) high-equity portfolios lead to an increase in return volatility without sufficiently compensating investors with higher returns, (2) hedging against price increases by engineering a portfolio with inflation-suitable assets yields mixed results, (3) a portfolio composition that combines derivative overlay strategies for both equities

and corporate bonds and uses SRI-screened assets as underlying generates the best results.

From Robin Sickles: As I indicated to you some months ago Professor William Horrace and I would like Springer to publish a Festschrift in Honor of Peter Schmidt, our professor. Peter's accomplishments are legendary among his students and the profession. I have a bit of that student perspective in my introductory and closing remarks on the website for the conference we had in his honor this last July. I have attached the conference program from which selected papers will come (as well as from students who were unable to attend). You will also find the names of his students (40) on the website. A top twenty economics department could be started up from those 40 students. Papers from some festschrifts have a thematic link among the papers based on subject material. What I think is unique to this festschrift is that the theme running through the papers will be Peter's remarkable legacy left to his students to frame a problem and then analyze and examine it in depth using rigorous techniques but rarely just for the purpose of showcasing technical refinements per se. I think this would be a book that graduate students would find invaluable in their early research careers and seasoned scholars would find invaluable in both their and their students' research.

Co-integration, equilibrium and equilibrium correction are key concepts in modern applications of econometrics to real world problems. This book provides direction and guidance to the now vast literature facing students and graduate economists. Econometric theory is linked to practical issues such as how to identify equilibrium relationships, how to deal with structural breaks associated with regime changes and what to do when variables are of different orders of integration.

Reflects the developments and new directions in the field since the publication of the first successful edition and contains a complete set of problems and solutions This revised and expanded edition reflects the developments and new directions in the field since the publication of the first edition. In particular, sections on nonstationary panel data analysis and a discussion on the distinction between deterministic and stochastic trends have been added. Three new chapters on long-memory discrete-time and continuous-time processes have also been created, whereas some chapters have been merged and some sections deleted. The first eleven chapters of the first edition have been compressed into ten chapters, with a chapter on nonstationary panel added and located under Part I: Analysis of Non-fractional Time Series. Chapters 12 to 14 have been newly written under Part II: Analysis of Fractional Time Series. Chapter 12 discusses

the basic theory of long-memory processes by introducing ARFIMA models and the fractional Brownian motion (fBm). Chapter 13 is concerned with the computation of distributions of quadratic functionals of the fBm and its ratio. Next, Chapter 14 introduces the fractional Ornstein–Uhlenbeck process, on which the statistical inference is discussed. Finally, Chapter 15 gives a complete set of solutions to problems posed at the end of most sections. This new edition features: • Sections to discuss nonstationary panel data analysis, the problem of differentiating between deterministic and stochastic trends, and nonstationary processes of local deviations from a unit root • Consideration of the maximum likelihood estimator of the drift parameter, as well as asymptotics as the sampling span increases • Discussions on not only nonstationary but also noninvertible time series from a theoretical viewpoint • New topics such as the computation of limiting local powers of panel unit root tests, the derivation of the fractional unit root distribution, and unit root tests under the fBm error Time Series Analysis: Nonstationary and Noninvertible Distribution Theory, Second Edition, is a reference for graduate students in econometrics or time series analysis. Katsuto Tanaka, PhD, is a professor in the Faculty of Economics at Gakushuin University and was previously a professor at Hitotsubashi University. He is a recipient of the Tjalling C. Koopmans Econometric Theory Prize (1996), the Japan Statistical

Society Prize (1998), and the Econometric Theory Award (1999). Aside from the first edition of Time Series Analysis (Wiley, 1996), Dr. Tanaka had published five econometrics and statistics books in Japanese.

This book provides a wide-ranging account of the literature on co-integration and the modelling of integrated processes (those which accumulate the effects of past shocks). Data series which display integrated behaviour are common in economics, although techniques appropriate to analysing such data are of recent origin and there are few existing expositions of the literature. This book focuses on the exploration of relationships among integrated data series and the exploitation of these relationships in dynamic econometric modelling. The concepts of co-integration and error-correction models are fundamental components of the modelling strategy. This area of time-series econometrics has grown in importance over the past decade and is of interest to econometric theorists and applied econometricians alike. By explaining the important concepts informally, but also presenting them formally, the book bridges the gap between purely descriptive and purely theoretical accounts of the literature. The asymptotic theory of integrated processes is described and the tools provided by this theory are used to develop the distributions of estimators and test statistics. Practical modelling advice, and the use of techniques for systems estimation, are

also emphasized. A knowledge of econometrics, statistics, and matrix algebra at the level of a final-year undergraduate or first-year undergraduate course in econometrics is sufficient for most of the book. Other mathematical tools are described as they occur.

This year's Conference is characterized by the research contributions of Scientists from Cyprus, England, Saudi Arabia and Greece. This year's Conference is organized by the Greek Foundation for Research in the Quantitative, Social and Economic Subjects, which is a non-profit Company with Articles of Association registered in the Chamber of Non-for- profit organizations. This Conference is a continuation, in a broader sense, of the four International Conferences which were organized by myself during the years 2003, 2009, 2013, and 2015, under the auspices of the Technological Educational Institute of Athens, as well as the 1st and 2nd International Conference on Quantitative, Social, Biomedical and Economic Issues, during the years 2017, 2018, Athens. The International Conferences of the years 2017, 2018, were organized under the Auspices of the Greek Foundation for Research in the Quantitative, Social and Economic Subjects which is based in Athens, Greece and has links with an International group of Academics. This Conference is focusing on the impact of Education on the innovation process, the productivity and the well-balanced

development of a country. The findings of (Varsakelis, Volume 35, Issue 7, September 2006, Pages 1083-1090, ELSEVIER) support the hypothesis that the higher the investment of a society in the quality of education, the higher the output of innovation activity. Furthermore, the development level of the governmental institutions is positively correlated with innovation activity. The aim of this Conference is to become a forum for the analysis of subjects related to the Quantitative, Social, Biomedical and Economic Sciences, the present state in Greece for the sectors of Education, Health, Innovative Business and the lessons learnt from them, in the context of the serious economic crisis in Europe and, particularly, in Greece. This Conference, also, is the opportunity for many highly respected scientists to present and exchange ideas in their respective research areas with the aim of initiating new joint projects. The new developments in the sectors of contemporary Science and Economy are important and the need for a clear and responsible information is very high regarding, also, the possibility of fake news through the Internet.

This informative reference volume features the key papers in the growing field of quantitative criminology. The papers provide examples of the importation of statistical methods from other fields to criminology, the adaptation of such methods to special criminological problems through introspection, and the

development of new innovative statistical approaches. The volume illustrates the growing sophistication and maturation of quantitative methods in this field. Divided into five parts: research design, sampling, issues in measurement, descriptive analysis and causal analysis, it will be of interest to anyone concerned with criminology and criminal justice, as well as those with specialized interests in quantitative methods.

Inflation persistence is sometimes defined as the tendency for price shocks to push the inflation rate away from its steady state—including an inflation target—for a prolonged period. Persistence is important because it affects the output costs of lowering inflation back to the target, often described as the “sacrifice ratio”. In this paper I use inflation expectations to provide a comparison of inflation persistence in Brazil with a sample of inflation targeting (IT) countries. This approach suggests that inflation persistence increased in Brazil through early 2013, in contrast to many of its IT peers, mainly due to “upward” persistence. The 2013 rate hiking cycle may have contributed to some recent decline in persistence.

Mathematical techniques for trading and risk management. Managing Energy Risk closes the gap between modern techniques from financial mathematics and the practical implementation for trading and risk management. It takes a multi-commodity approach that covers the mutual influences of the markets for fuels, emission certificates, and power. It includes many practical examples and covers methods from financial mathematics as well as economics and energy-related models.

This volume documents the economic integration of the European national economies over the

period 1850-1913. The authors concentrate on the macroeconomic aspects of this integration, focusing on measures of aggregate output and monetary aggregates as they relate to policy concerns, such as those surrounding the implementation of the gold standard, as well as the possible interaction of nominal and real factors in both growth and cycles. They also date the `European' cycle and show a close coincidence across nations.

Testing for a unit root is now an essential part of time series analysis. This volume provides a critical overview and assessment of tests for a unit root in time series, developing the concepts necessary to understand the key theoretical and practical models in unit root testing.

The subject of time series is of considerable interest, especially among researchers in econometrics, engineering, and the natural sciences. As part of the prestigious Wiley Series in Probability and Statistics, this book provides a lucid introduction to the field and, in this new Second Edition, covers the important advances of recent years, including nonstationary models, nonlinear estimation, multivariate models, state space representations, and empirical model identification. New sections have also been added on the Wold decomposition, partial autocorrelation, long memory processes, and the Kalman filter. Major topics include: * Moving average and autoregressive processes * Introduction to Fourier analysis * Spectral theory and filtering * Large sample theory * Estimation of the mean and autocorrelations * Estimation of the spectrum * Parameter estimation * Regression, trend, and seasonality * Unit root and explosive time series To accommodate a wide variety of readers, review material, especially on elementary results in Fourier analysis, large sample statistics, and difference equations, has been included.

This book provides the most comprehensive treatment of the theoretical concepts and

modelling techniques of quantitative risk management. Whether you are a financial risk analyst, actuary, regulator or student of quantitative finance, Quantitative Risk Management gives you the practical tools you need to solve real-world problems. Describing the latest advances in the field, Quantitative Risk Management covers the methods for market, credit and operational risk modelling. It places standard industry approaches on a more formal footing and explores key concepts such as loss distributions, risk measures and risk aggregation and allocation principles. The book's methodology draws on diverse quantitative disciplines, from mathematical finance and statistics to econometrics and actuarial mathematics. A primary theme throughout is the need to satisfactorily address extreme outcomes and the dependence of key risk drivers. Proven in the classroom, the book also covers advanced topics like credit derivatives. Fully revised and expanded to reflect developments in the field since the financial crisis Features shorter chapters to facilitate teaching and learning Provides enhanced coverage of Solvency II and insurance risk management and extended treatment of credit risk, including counterparty credit risk and CDO pricing Includes a new chapter on market risk and new material on risk measures and risk aggregation

This trusted textbook returns in its 4th edition with even more exercises to help consolidate understanding - and a companion website featuring additional materials, including a solutions manual for instructors. Offering a unique blend of theory and practical application, it provides ideal preparation for doing applied econometric work as it takes students from a basic level up to an advanced understanding in an intuitive, step-by-step fashion. Clear presentation of economic tests and methods of estimation is paired with practical guidance on using several

types of software packages. Using real world data throughout, the authors place emphasis upon the interpretation of results, and the conclusions to be drawn from them in econometric work. This book will be essential reading for economics undergraduate and master's students taking a course in applied econometrics. Its practical nature makes it ideal for modules requiring a research project. New to this Edition: - Additional practical exercises throughout to help consolidate understanding - A freshly-updated companion website featuring a new solutions manual for instructors

John Ruggie introduced the concept of embedded liberalism in a 1982 article that has become one of the most frequently cited sources in the study of international political economy. The concept was intended to convey the manner by which capitalist countries learned to combine the efficiency of markets with the broader values of the community that socially sustainable markets themselves require in order to survive and thrive. Examining the concept and the institutionalized practice of embedded liberalism, this collection provides a survey of the macro patterns in industrialized countries. Leading scholars combine to demonstrate the benefits of embedded liberalism in practice as well as its gradual erosion at national levels, and to analyze public opinion. They provide a better understanding of what embedded liberalism means, why it matters and how to reconstitute it in the context of the global economy. The contributors contextualize the current challenge historically and theoretically so that students, scholars and policy makers alike are reminded of what is at stake and what is required.

Digitising Enterprise in an Information Age is an effort that focuses on a very vast cluster of Enterprises and their digitising technology involvement and take us through the road map of the implementation process in them, some of them being ICT, Banking, Stock Markets, Textile

Industry & ICT, Social Media, Software Quality Assurance, Information Systems Security and Risk Management, Employee Resource Planning etc. It delves on increased instances of cyber spamming and the threat that poses to e-Commerce and Banking and tools that help and Enterprise toward of such threats. To quote Confucius, “As the water shapes itself to the vessel that contains it, so does a wise man adapts himself to circumstances.” And the journey of evolution and progression will continue and institutions and enterprises will continue to become smarter and more and more technology savvy. Enterprises and businesses across all genre and spectrum are trying their level best to adopt to change and move on with the changing requirements of technology and as enterprises and companies upgrade and speed up their digital transformations and move their outdate heirloom systems to the cloud, archaic partners that don't keep up will be left behind. Note: T&F does not sell or distribute the Hardback in India, Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka.

Time series, or longitudinal, data are ubiquitous in the social sciences. Unfortunately, analysts often treat the time series properties of their data as a nuisance rather than a substantively meaningful dynamic process to be modeled and interpreted. Time Series Analysis for the Social Sciences provides accessible, up-to-date instruction and examples of the core methods in time series econometrics. Janet M. Box-Steffensmeier, John R. Freeman, Jon C. Pevehouse and Matthew P. Hitt cover a wide range of topics including ARIMA models, time series regression, unit-root diagnosis, vector autoregressive models, error-correction models, intervention models, fractional integration, ARCH models, structural breaks, and forecasting. This book is aimed at researchers and graduate students who have taken at least one course in multivariate regression. Examples are drawn from several areas of social science, including

political behavior, elections, international conflict, criminology, and comparative political economy.