Estimation Of Panel Vector Autoregression In Stata A

Panel data econometrics has evolved rapidly over the past three decades. The field is of both theoretical and practical importance, and methods to deal with micro- and macroeconomic panel data are in high demand from practitioners. Applications in finance, development, trade, marketing, health, labor, and consumer economics attest to the usefulness of these methods in applied economics. THis book is a comprehensive source on panel data. It contains 20 chapters edited by Professor Badi Baltagi--one of the leading econometricians in the area of panel data econometrics--and authored by renowned experts in the field. The chapters are divided into two sections. Part I examines new developments in theory. It includes panel cointegration, dynamic panel data models, incidental parameters and dynamic panel modeling, and panel data models for discrete choice. The chapters in Part II target applications of panel data, including health, labor, marketing, trade, productivity and macro applications in panels.

This four-volume handbook covers important concepts and tools used in the fields of financial econometrics, mathematics, statistics, and machine learning. Econometric methods have been applied in asset pricing, corporate finance, international finance, options and futures, risk management, and in stress testing for financial institutions. This handbook discusses a variety of econometric methods, including single equation multiple regression, simultaneous equation regression, and panel data analysis, among others. It also covers statistical distributions, such as the binomial and log normal distributions, in light of their applications to portfolio theory and asset management in addition to their use in research regarding options and futures contracts.In both theory and methodology, we need to rely upon mathematics, which includes linear algebra, geometry, differential equations, Stochastic differential equation (Ito calculus), optimization, constrained optimization, and others. These forms of mathematics have been used to derive capital market line, security market line (capital asset pricing model), option pricing model, portfolio analysis, and others.In recent times, an increased importance has been given to computer technology in financial research. Different computer languages and programming techniques are important tools for empirical research in finance. Hence, simulation, machine learning, big data, and financial payments are explored in this handbook.Led by Distinguished Professor Cheng Few Lee from Rutgers University, this multi-volume work integrates theoretical, methodological, and practical issues based on his years of academic and industry experience.

The global upswing in economic activity is strengthening. Global growth, which in 2016 was the weakest since the global financial crisis at 3.2 percent, is projected to rise to 3.6 percent in 2017 and to 3.7 percent in 2018. The growth forecasts for both 2017 and 2018 are 0.1 percentage point stronger compared with projections earlier this year. Broad-based upward revisions in the euro area, Japan, emerging Asia, emerging Europe, and Russia—where growth outcomes in the first half of 2017 were better than expected—more than offset downward revisions for the United States and the United Kingdom. But the recovery is not complete: while the baseline outlook is strengthening, growth remains weak in many countries, and inflation is below target in most advanced economies. Commodity exporters, especially of fuel, are particularly hard hit as their adjustment to a sharp step down in foreign earnings continues. And while short-term risks are broadly balanced, medium-term risks are still tilted to the downside. The welcome cyclical pickup in global activity thus provides an ideal window of opportunity to tackle the key policy challenges—namely to boost potential output while ensuring its benefits are broadly shared, and to build resilience against downside risks. A renewed multilateral effort is also needed to tackle the common challenges of an integrated global economy.

This book provides a comprehensive, coherent, and intuitive review of panel data methodologies that are useful for empirical analysis. Substantially revised from the second edition, it includes two new chapters on modeling cross-sectionally dependent data and dynamic systems of equations. Some of the more complicated concepts have been further streamlined. Other new material includes correlated random coefficient models, pseudo-panels, duration and count data models, quantile analysis, and alternative approaches for controlling the impact of unobserved heterogeneity in nonlinear panel data models.

This edited volume of International Finance Review examines the rising challenges facing emerging financial markets and institutions. It provides significant insight and policy implications on topics including global banking, risk and contagion, stock market behaviour, financial inclusion in the major emerging economies, and more.

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

This publication reviews recent developments in East Asian local currency bond markets along with the outlook, risks, and policy options. It covers the 10 members of the Association of Southeast Asian Nations plus the People’s Republic of China; Hong Kong, China; and the Republic of Korea.

?This book contributes to the debate on the decoupling of emerging economies from the advanced economies with a new, empirical investigation approach. Taking counterfactual experiments performed using a time-varying panel VAR model, the author argues that over the last thirty years, emerging economies have become less vulnerable to shocks spreading from advanced economies. This resilience to external shocks has changed in a non-progressive manner over time, with phases of greater resilience followed by others of lower resilience and vice versa. This research outlines its wave-like path and presents new results that contribute to the discussion.

Julian Eibel studies the contribution of joint venture (JV) use as means of financing flexibility against the background of diverse financial restrictions in the institutional and regulated environment of the REIT Act. After reviewing JV motives for classical corporations, the real estate and REIT industry as well as the financing and capital behavior of REITs, the author finds JVs to result from REIT managers’ need of financing flexibility to allow timely funding outside regulated markets. Thus, he argues JVs mitigate financing restrictions and stimulate capital markets to regain access to classical financing.

Measures of Active Labor Market Policy - such as training, wage subsidies, public employment measures, and job search assistance - are widely used in European countries to combat unemployment. This study provides novel insight on this important policy issue by discussing the role of the European Commission's Employment Strategy, reviewing the experiences made in European states, and giving the first ever quantitative assessment of the existing cross-country evidence.

This book evaluates the global labour market in the context of gender equality, and the associated policies and regulations, particularly in developing markets, to recommend measures for encouraging gender equality. It exposes the barriers that women employees encounter as well as some of the societal and workplace policies they, specifically, are subject to. Important themes within this topic include participation rates, the looming gap in hourly pay, availability of part-time and full-time positions, value, and social status associated with jobs held by men and women. The book examines how global gender policy objectives, such as gender equality in careers, gender balance in decision-making, and gender dimensions in research, can be incorporated into policy frameworks. The book analyzes the gendered nature of assumptions, processes and theories. The juxtaposition between family and work, tradition and modernity, and dependency and autonomy, clearly still seems to be misunderstood. Therefore, the book asks whether work improves women's positions in society and/or changes their roles in their families. The authors explore and uncover the connections among employment, entrepreneurship, migration economies, and gender global labour markets and provide helpful solutions to the perceptions surrounding women's status, risks, and inequality that limit their economic participation. This insightful read provides comprehensive details on a variety of themes and encourages further research on policies that are key to promoting gender equality. The book will appeal to postgraduate students and researchers of labour and feminist economics, the economics of gender, women's studies and sociology.

BRICs development financing flows have increased significantly and are expected to become more prominent in the post-crisis era. We investigate the potential implications on the country-allocation of loan commitments and the degree of concessionality using a panel vector autoregression model and single equation dynamic panel estimation.We find that BRICs lend more to LICs with weaker institutions. Land-locked, resource-scarce LICs receive significantly less financing than other resource-rich LICs. The degree of concessionality is negatively correlated with the amount of loans and positively correlated with better institutional indicators suggesting that the higher the risks, the higher the required returns that BRICs expect.

Current Issues in Asian Tourism: Volume II draws together a collection of papers from Current Issues in Asian Tourism (CIAT). CIAT was launched by the editors of Current Issues in Tourism in response to the growing number of papers about tourism in Asia received by the journal and the increasing number of authors from Asian countries. This volume focuses on three aspects of Asian tourism. Firstly, the section on marketing, consumption and demand for Asian tourism includes papers on mega events, creative experiences, World Heritage Sites and pollution. Secondly, a group of papers focus on sustainable Asian tourism destinations including papers on investment, climate change, energy and local food. Finally, there are two chapters on Asian tourism research methods including the use of photography and qualitative methods. The papers in this book were originally published in Current Issues in Asian Tourism.

Structural vector autoregressive (VAR) models are important tools for empirical work in macroeconomics, finance, and related fields. This book not only reviews the many alternative structural VAR approaches discussed in the literature, but also highlights their pros and cons in practice. It provides guidance to empirical researchers as to the most appropriate modeling choices, methods of estimating, and evaluating structural VAR models. The book traces the evolution of the structural VAR methodology and contrasts it with other common methodologies, including dynamic stochastic general equilibrium (DSGE) models. It is intended as a bridge between the often quite technical econometric literature on structural VAR modeling and the needs of empirical researchers. The focus is not on providing the most rigorous theoretical arguments, but on enhancing the reader's understanding of the methods in question and their assumptions. Empirical examples are provided for illustration.

We compare the effectiveness of Federal Reserve's asset purchase programs in lowering longterm yields with that of similar programs implemented by the Bank of England, the Swedish Riksbank, and the Swiss National Bank's reserve expansion program. We decompose government bond yields into (i) an expectations component, (ii) a global, and (iii) a country specific term premium to analyze two-day changes in 10-year yields around announcement dates. We find that, in contrast to the Federal Reserve's asset purchases, the programs implemented in these smaller economies have not been able to affect the global term premium and, furthermore, they have had limited, but significant, effect in lowering long-term yields.

This Selected Issues paper assesses Slovakia's household and private sector indebtedness against macroeconomic fundamentals, identifies key vulnerabilities from rapid household credit growth, assesses policy responses to date, and presents further policy options. Strong private sector credit growth has persisted for over a decade and resulted in household debt that is high relative to peers. Credit is now growing in riskier segments. Housing prices have also started to reflect pressures from strong credit growth. The paper describes assessments of household and private sector debt levels relative to fundamentals. It also describes the policy response to date and assesses its effectiveness. Econometric analysis suggests that household indebtedness is growing at a faster pace than implied by economic fundamentals. The credit cycle seems to have reached its post-crisis high. The credit cyclogram, compiled by the National Bank of Slovakia, is an aggregation of a set of core and supplementary variables evaluated against distributions of their own historical values to disentangle factors cyclical credit growth.

This paper focuses on the selected issues of the Indonesian economy: (1) banking sector condition in India, (2) corporate vulnerabilities, (3) analysis of macrofinancial linkages in Indonesia, and (4) infrastructure development in Indonesia. Overall, the banking sector appears well capitalized and profitable. However, rising vulnerabilities from corporate foreign currency leverage and challenging financial market conditions have raised concerns. The risk from the corporate sector remains manageable, and the authorities have strengthened the monitoring framework. Macrofinancial linkages are analyzed using two complementary approaches: sector-level balance sheet analysis and a panel vector autoregressive approach. This paper addresses macrofiscal issues surrounding infrastructure development in Indonesia.

The economic literature has examined deposit dollarization in nominal terms, typically focusing on the ratio of foreign currency deposits to broad money. However, while private agent demand for foreign currency may remain unchanged in foreign currency terms, there could be large fluctuations in the dollarization ratio simply due to exchange rate movements. This paper proposes a new approach to measuring dollarization that removes these exchange rate effects, and demonstrates that beyond the variance of inflation and depreciation, the level of inflation and size of depreciation also matter for dollarization. While dollarization in nominal terms surged during the recent global financial crisis, there was a downward trend in real terms. Employing a set of econometric estimators, this paper investigates whether “real” dollarization during 2006–09 was associated with the crisis, and the role of initial macroeconomic conditions, quality of institutions, risk aversion, and prudential measures. We find that exchange rate appreciation and reductions in sovereign risk do moderate dollarization; but the results for global volatility have low statistical significance, perhaps because global shocks tend to preserve, to a large extent, relative attractiveness of foreign assets. Nonetheless, estimated impulse-response functions point to a large but short-lived positive impact of global volatility on dollarization, which could reflect economic agents heightened concerns about spillover effects of global uncertainty on the domestic economy.

The parties of the United Nations Framework Convention on Climate Change (UNFCCC) attained the Paris Agreement to tackle climate change and to strengthen the actions required for a sustainable transition towards an environmentally friendly future. This transition will involve holistic approaches and multifaceted societal shifts, requiring answers and collaboration between private, public, and academic sectors. This book gathers together contributions which study the transition towards a more sustainable future, involving and identifying the development and implications of more sustainable alternatives, in collaboration with all relevant stakeholders (e.g. communities, firms, policy makers, researchers, etc.), to achieve this transition. The approaches proposed are all concerned with a common perspective: imaging our globe with a greener picture, built upon a transversal sustainable revolution to clean up the Earth.

This paper analyses the causes and consequences of fiscal consolidation promise gaps, defined as the distance between planned fiscal adjustments and actual consolidations. Using 74 consolidation episodes derived from the narrative approach in 17 advanced economies during 1978 – 2015, the paper shows that promise gaps were sizeable (about 0.3 percent of GDP per year, or 1.1 percent of GDP during an average fiscal adjustment episode). Both economic and political factors explain the gaps: for example, greater electoral proximity, stronger political cohesion and higher accountability were all associated with smaller promise gaps. Finally, governments which delivered on their fiscal consolidation plans were rewarded by financial markets and not penalized by voters.

Debt, private and public, and in particular excessive debt, has been debated to be one of the root causes of economic crises. At the same time, economic crises are believed to lead to an increase of debt. This book, through a range of contributors, explores certain constituents of an economy and attempts to identify their contribution to debt (public and private), especially in times of crisis; namely, bonds, tariffs, social security and non-performing loans (NPLs). Furthermore, it captures the (implicit) impact of the demography on debt through tariffs and social security and investigates the effect of quantitative easing/purchase programs and as well as crises on debt. In addition, the (cost of the) reserve that a state may want to provision for, in order to secure its economy from defaulting within a certain time horizon, is also addressed and calculated. This calculation offers an alternative valuation, or pricing, of (excess) debt (default protection). This book aims to offer a comparative study of countries – especially those with a history of excessive debt - and intends to realize whether an economic crisis can genuinely deteriorate debt, or whether the debt unsustainability is preexisting to the crisis. It will be relevant to students and researchers interested in economic policy and growth.

In emerging Asia, banks constitute the dominant source of financing consumption and investment, and bank balance sheets comprise large gross FX assets and liabilities. This paper extends the DSGE model of Gertler and Karadi (2011) to incorporate these key features and estimates a panel vector autoregression on ten Asian economies to understand the role of the banking sector in transmitting spillovers from the global financial cycle to small open economies. It also evaluates the effectiveness of foreign exchange intervention (FXI) and other macroeconomic policies in responding to external financing shocks. External financial shocks affect net external liabilities of banks and the exchange rate, leading to changes in credit supply by banks and investment. For example, a capital outflow shock leads to a deprecation that reduces the net worth and intermediation capacity of banks exposed to foreign currency liabilities. In such cases, the exchange rate acts as shock amplifier and sterilized FXI, often deployed by Asian economies, can help cushion the economy. By contrast, with real shocks, the exchange rate serves as a shock absorber, and any FXI that weakens that function can be costly. We also explore the effectiveness of the monetary policy interest rate, macroprudential policies (MPMs) and capital flow management measures (CFMs).

Two main themes of the book are that (1) politics can distort optimal fiscal policy through elections and through political fragmentation, and (2) rules and institutions can attenuate the negative effects of this dynamic. The book has three parts: part 1 (9 chapters) outlines the problems; part 2 (6 chapters) outlines how institutions and fiscal rules can offer solutions; and part 3 (4 chapters) discusses how multilevel governance frameworks can help.

Cross-Country Report on Spillovers: Selected Issues

This book is concerned with recent developments in time series and panel data techniques for the analysis of macroeconomic and financial data. It provides a rigorous, nevertheless user-friendly, account of the time series techniques dealing with univariate and multivariate time series models, as well as panel data models. It is distinct from other time series texts in the sense that it also covers panel data models and attempts at a more coherent integration of time series, multivariate analysis, and panel data models. It builds on the author's extensive research in the areas of time series and panel data analysis and covers a wide variety of topics in one volume. Different parts of the book can be used as teaching material for a variety of courses in econometrics. It can also be used as reference manual. It begins with an overview of basic econometric and statistical techniques, and provides an account of stochastic processes, univariate and multivariate time series, tests for unit roots, cointegration, impulse response analysis, autoregressive conditional heteroskedasticity models, simultaneous equation models, vector autoregressions, causality, forecasting, multivariate volatility models, panel data models, aggregation and global vector autoregressive models (GVAR). The techniques are illustrated using Microfit 5 (Pesaran and Pesaran, 2009, OUP) with applications to real output, inflation, interest rates, exchange rates, and stock prices.

The main objective of this book is to identify the key sources of growth which have played a significant role in Africa's recent robust growth as well as its efforts towards economic transformation. The book assesses to what extent the existing macroeconomic frameworks among African countries have been streamlined to the countries' development priorities in order to achieve long-term growth and economic transformation. Taking into account the diversity of African countries, the authors establish the economic linkages between relevant macroeconomic policy variables and the key sources of growth and development among the selected African economies, based on both theoretical and empirical underpinnings. Following this, an outline of a macroeconomic framework for Africa’s long-term growth and economic transformation is suggested.

Physical Capital Development and Energy Transition in Latin America and the Caribbean introduces the reader to applied theory and potential solutions to manage the transition from fossil energies to renewables given the resource wealth and infrastructural limitations of Latin American and Caribbean (LAC) countries. The work presents consistent empirical approaches and relevant econometric approaches grounded in case studies that offer realistic portrayals of complex multidisciplinary phenomena. It provides policymakers with the knowledge needed for economic decision-making, especially regarding the energy transition and the physical capital development in the LAC (and similar developing regions). The work concludes by road mapping future LAC physical capital investment options to promote 21st-century sustainable energy development. Analyses the macroeconomics of physical capital and energy transition in LAC countries Uses case studies to draw pragmatic comparative energy policy implications Deploys econometric techniques to address empirical approaches on energy and development economics Discusses the effects of the energy transition on environmental degradation Links energy economics and public investment management

Small island developing states (SIDS) are characterised by high economic, geographical and social vulnerability. These states are perceived as economically vulnerable, exhibiting poor economic performance, and embedding low levels of achieved well-being on most criteria. SIDS, which occupy very large parts of the world, face idiosyncratic development challenges largely owing to their susceptibility to external shocks. Still, these countries are all too often overlooked in the development research literature. Arising from a UNU-WIDER research project, this book provides in-depth research on the international dimensions of SIDS development experiences. Using a wealth of data, as well as case studies, the main topics examined comprise: aid, policies and growth; the costs of neglect, in terms of losses owing to a country falling into the fragile states group, of that country and those in its region; the composition of trade and the impact of external shocks, and the impact of remittances. The studies jointly provide valuable insights for small islands and other developing countries in the pursuit of sustainable growth and development. This book was published as a special issue of the Journal of Development Studies.

At a time when Algeria must undertake considerable fiscal consolidation to restore sustainability, the issue of fiscal multipliers has come to the fore. This paper estimates short-term and long-term fiscal multipliers for Algeria applying several econometric methodologies, including Local Projection Methodology and Vector Autoregressive Models, and using both Algeria-specific and panel data. The paper also explores asymmetries related to the sign of the output gap as well as the direction of spending. The results suggest that (i) average fiscal multipliers for Algeria are generally moderate and below unity; (ii) the impact of public spending shocks is more important when the output gap is negative; (iii) fiscal spending multipliers are significantly larger during spending contraction than expansion; (iv) procyclicality in public spending does not appear to affect output, except for capital spending cuts when the output gap is negative; and (v) while multipliers associated with countercyclical public spending can be sizeable, a contraction in current spending does not materially affect non-oil GDP.

The main purpose of this Handbook is to provide overviews and assessments of the state-of-the-art regarding research methods, approaches and applications central to economic geography. The chapters are written by distinguished researchers from a variet

Missing data are inevitable in longitudinal studies. Some missingness occurs by design, but most others are unplanned and may have profound consequences on inferential results. Numerous previous studies have evaluated different missing data handling techniques in cross-sectional and longitudinal panel data. However the impact of different kinds of missingness and strategies to handle missingness in multivariate, multilevel time-series data is less studied. It has been shown that ignoring the clustered structure in handling missing data when performing multiple imputation (MI) for cross-sectional data will lead to different variance and covariance properties of the imputed data, and thus the model estimation results are very likely to be biased (Grund, Lüdtke, & Robitzsch, 2018; van Buuren, 2018). In this dissertation project, I conducted a series of simulation studies to evaluate the performances of different multilevel MI methods in the context of Bayesian multilevel vector autoregressive models (MVARs) under different sample size, intraclass correlation, and missing data conditions. The missing data handling methods considered included a Bayesian equivalent of full-information maximum likelihood approach (BFIML), single-level MI, multilevel MI with joint modeling approach or full conditional specification approach, and a hybrid approach that integrated multilevel MI and BFIML method. Simulation results suggested that in fitting MVAR model under the parameter settings considered, researchers can effectively treat both MAR and, to a certain extent, MNAR missingness, with appropriate multilevel MI approach alone, or in combination with BFIML method. Specifically, for random-intercept only MVAR models with MAR missing data, the multilevel MI approaches performed as well as BFIML. For MNAR missingness, the multilevel MI and BFIML hybrid approach performed better. I also identified groups of parameters (i.e., random-intercept parameters) in the MVAR model that were more prone to biased estimates with MNAR missingness using the approaches considered. Finally, I discussed possible ways of resolving these limitations.

As the world is currently in the midst of financial and economic crises, this collection of expert contributions focuses on strategy formation and implementation at various organizational levels to address the challenges ahead. The latest economic turmoil and its ongoing impact on business performance are compelling top managers to develop effective business strategies and redefine the boundaries of their operational and strategic activities. On one hand, tremendous challenges in the competitive business environment have become a source of global threats for many small entrepreneurs. On the other, investors faced with today’s volatile economic conditions demand more gains on their capital investments to counter-balance the growing risk of global threats. This book explores the question as to whether it is possible to efficiently and effectively address these threats and obstacles. Are managers capable of planning and implementing strategic actions? What should the major managerial strategy be in order to overcome fluctuations in a market-oriented society? The strategies and practices recommended here are aimed to design continuous development competencies and contribute to the stability, recovery and sustainability of global business operations under volatile economic conditions. This refreshingly novel book seeks to establish managerial strategies and practices for effectively responding to challenges in the competitive business environment, as global volatility and fluctuations continue to worsen.

Mathematical Modelling of Contemporary Electricity Markets reviews major methodologies and tools to accurately analyze and forecast contemporary electricity markets in a ways that is ideal for practitioner and academic audiences. Approaches include optimization, neural networks, genetic algorithms, co-optimization, econometrics, E3 models and energy system models. The work examines how new challenges affect power market modeling, including discussions of stochastic renewables, price volatility, dynamic participation of demand, integration of storage and electric vehicles, interdependence with other commodity markets and the evolution of policy developments (market coupling processes, security of supply). Coverage addresses all major forms of electricity markets: day-ahead, forward, intraday, balancing, and capacity. Provides a diverse body of established techniques suitable for modeling any major aspect of electricity markets Familiarizes energy experts with the quantitative skills needed in competitive electricity markets Reviews market risk for energy investment decisions by stressing the multi-dimensionality of electricity markets

This paper assesses the determinants of NPLs in the Eastern Caribbean Currency Union (ECCU) and whether a deterioration in asset quality may result in negative feedback effects from the banking system to economic activity. The results suggest that the deterioration in asset quality can be attributed to both macroeconomic and bank-specific factors. Banks with stronger profitability and lower exposure to the construction sector and household loans tend to have lower NPLs. Further, some evidence indicates that foreign owned banks systematically have lower NPLs than domestic banks, pointing to the presence of important differences across bank practices with an impact on asset quality. Finally, the results emphasize the strength of macrofinancial feedback loops in the ECCU.