Wenxin HUANG

Homepage: http://huangwenxin.weebly.com/
Email: wx.huang.2013@phdecons.smu.edu.sg
Tel: (+65)9343-5911

SINGAPORE MANAGEMENT UNIVERSITY

EDUCATION

Ph.D. in Economics, Singapore Management University, Singapore   2013- Expected 2018
Thesis Title: Nonstationary Panel with Unobserved Heterogeneity
Thesis Committee and References:
Prof. Liangjun Su (Chair), Prof. Peter C.B. Phillips, Prof. Sainan Jin
B.A. in Finance, Shanghai Jiao Tong University, China   2009-2013
International Exchange Student, Finance, University of Victoria, Canada   2012

RESEARCH INTERESTS

Econometrics, International Macroeconomics, Asset Pricing

RESEARCH PAPERS

"Nonstationary Panel Model with Latent Group Structure and Cross-sectional Dependence", (Job Market Paper) with Peter C.B. Phillips. and Liangjun Su.

This article proposes a novel approach, based on Lasso, to handle unobserved heterogeneity in nonstationary panel model with cross-sectional dependence. We employ the penalized principal component (PPC, hereafter) estimation method to jointly estimate the group-specific long-run relations, unobserved common factors and identify individuals' membership. In post-Lasso estimator, we apply bias-correction by the fully modified procedures. We also propose a continuous updated-Lasso (Cup-Lasso, hereafter) estimator by iteratively solving the PPC-based objective function with bias-correction. The fully modified Cup-Lasso estimator achieves the oracle property so that the group-specific coefficients can be estimated as well as if the individuals' membership were known. We establish the asymptotic theory and limit distributions of the C-Lasso, post-Lasso and the Cup-Lasso estimators, which are normal and permit inference using standard test statistics. An empirical example is presented based on economic growth convergence theory through the channel of global technology diffusion. It empirically confirms the multiple steady states of convergence across economies.

- XI World Conference of the Spatial Econometrics Association at SMU, Singapore, 2017
- SMU Ph.D. Workshop on Econometrics, Singapore, 2017

"Identifying Latent Group Patterns in Cointegrated Panel", (submitted) with Sainan Jin and Liangjun Su.

We consider a panel cointegration model with latent group structures that allows for heterogeneous long-run relations across groups. We extend Su, Shi, and Phillips (2016) classifier-Lasso (C-Lasso) method to the nonstationary panels and allow for the presence of endogeneity in both the stationary

and nonstationary regressors in the model. In addition, we allow the dimension of the stationary regressors to diverge with the sample size. We show that we can identify the individuals' group membership and estimate the group-specific long-run cointegrated relationships simultaneously. We demonstrate the desirable property of uniform classification consistency and the oracle properties of both the C-Lasso estimators and their post-Lasso versions. The special case of dynamic penalized least squares is also studied. Simulations show superb finite sample performance in both classification and estimation. In an empirical application, we study the potential heterogeneous behavior in testing the validity of long-run PPP hypothesis in the post-Bretton Woods period from 1975-2014 covering 99 countries. We identify two groups in the period 1975-1998 and three ones in the period 1999-2014. The results confirm that at least some countries favor the long-run PPP hypothesis in the post-Bretton Woods period.

- Asian Meeting of the Econometric Society*, Hong Kong, 2017
- Advances in Econometrics Conference at SJTU*, Shanghai, 2017
  (*indicates presentation by co-author)

"Panel Error-Correction Model with Dynamic Common Factors and Unobserved Heterogeneity" with Liangjun Su.

This paper proposes a econometric model that accounts for both long-run and short-run co-movements in panel error-correction model. By imposing the latent group structure, we achieve efficient estimation for the long-run cointegration vectors in the presence of unobserved heterogeneity. And the short-run co-movements are driven by unobserved dynamic common factors. We propose the penalized generalized least square method to simultaneously obtain the estimators of long-run cointegration vectors and unobserved group identity. The asymptotic theory have been established for the Lasso-type estimators. An empirical example is presented on the price discovery in market microstructure model by using the high frequency data. We introduce a new measure for the efficient price deriving from the weighted average of bid and ask quotes.

WORKING IN PROGRESS
"Unobserved Heterogeneity in Price Impacts: Evidence in Bid-ask Spread" with Yuan Zhuang
"High-dimensional Panel VAR Model with Latent Group Structure and Sparse Network" with Liangjun Su

TEACHING EXPERIENCE
ECON 107, Introduction to Econometric (Undergraduate)	Fall 2017
Teaching Assistant for Prof. Yichong Zhang	
ECON 665, Econometrics I&II (M.Sc)	Fall 2016, 2017
Teaching Assistant for Prof. Sainan Jin	
ECON 626, International Macroeconomics (Ph.D.)	Spring 2015, 2016
Teaching Assistant for Prof Juliana Yu Sun	
ECON 602, Macroeconomics I (Ph.D.)	2014
Teaching Assistant for Prof. Nicolas Jacquet	
Teaching Certificate, (Graduate Development Programs)	2015
English Skill Certificate, (British Council)	2015-2016

PROFESSIONAL ACTIVITIES
Presentations:

XI World Conference of the Spatial Econometrics Association, Singapore	2017
SMU Ph.D. Workshop on Econometrics, Singapore	2017

Refereeing Activities

Referee for *Econometric Theory, Econometric Review*

HONORS & AWARDS

Presidential Doctor Fellowship, Singapore Management University	2017
Doctoral Scholarship, Singapore Management University	2013-2017
Travel Funding, Postgraduate Research Program, Singapore Management University	2016-2017
Academic Excellent Scholarship (1st-Class), Shanghai Jiao Tong University	2011
Academic Excellent Scholarship (2nd-Class), Shanghai Jiao Tong University	2010
The 2nd Prize in the "Wenzhi Cup", Shanghai Jiao Tong University	2010
Gold Prize in National Biology Olympiad	2009

RESEARCH EXPERIENCE

Research Assistant for Prof Liangjun Su	2013-2014

SKILLS
Languages: English (Fluent), Chinese (Native)

Statistic programming: MatLab, R, Python, Stata, Eviews, LaTeX

Database experience: WRDS, TAQ, CEIC, World Bank, IMF Statistics, EIU

CONTACT INFORMATION
School of Economics, Singapore Management University

90 Stamford Road, #5016

Singapore, 178903

PERSONAL INFORMATION
November 2,1991, Female, Chinese

REFERENCES

Prof. Liangjun Su (Chair),
Lee Kong Chian Professor of Economics,
Singapore Management University,
ljsu@smu.edu.sg
(+65)6828-0386

Prof. Sainan Jin,
Professor of Economics,
Singapore Management University,
snjin@smu.edu.sg
(+65)6828-0431

Prof. Peter C.B. Phillips,
Yale University: Sterling Professor of Economics
& Professor of Statistics,
University of Auckland: Distinguished Professor,
University of Southampton: Adjunct Professor
of Economics,
Singapore Management University:
Distinguished Term Professor of Economics,
peter.phillips@yale.edu
(+203)432-3695 (office)