October 2024

Linh Nguyen

nguye535@purdue.edu (682) 248-4794 sites.google.com/view/linh-nguyen-535

Education

Purdue University August 2025 (expected)
Ph.D candidate in Economics
Committee: Mohitosh Kejriwal (chair), Yong Bao, Joshua C. C. Chan, Brian Roberson

University of Texas at Austin 2019
MA in Economics

Texas Christian University 2018
BSc in Computer Science & Economics

References

Professor Mohitosh Kejriwal	Professor Yong Bao	Professor Joshua C. C. Chan
Purdue University	Purdue University	Purdue University
Daniels School of Business	Daniels School of Business	Daniels School of Business
mkejriwa@purdue.edu	ybao@purdue.edu	chan196@purdue.edu

Research and Teaching Fields

Primary:	Econometrics
Secondary:	Applied Econometrics, Financial Econometrics

Job Market Paper

Constructing combination forecasts for cointegrated time series: a new approach

Abstract

This paper explores the combination of forecasts from two estimators: the maximum likelihood estimator in a fully specified error correction model (MLECM) which imposes certain restrictions on long run relationship between variables and the restricted vector autoregressive estimator (RVAR), which overlooks long-run relationships in nonstationary time series. When adjustment coefficients provide weak signals, the inclusion of the error correction terms in cointegrated system can have an uncertain impact on forecasting nonstationary variables. To address the issue, we propose the use of Mallows criteria to construct a weighted forecast based on in-sample prediction errors which combines forecasts with long-run restrictions and those that may over-difference the data. We demonstrate that this weighted forecast equivalently minimizes the out-of-sample forecast risk by leveraging the equivalence between asymptotic mean-squared error (AMSE) and asymptotic forecast risk (AFR) observed in stationary series, consequentially improves the forecast accuracy for nonstationary variables. By eliminating common stochastic trends among cointegrated variables, the Mallows penalty function is simplified to number of parameters in ordinary least square regression equation scaled by variance of estimated residuals, with the derived optimal weights are approximately unbiased estimates of the infeasible combination weights. Numerical simulations across different cointegration ranks consistently support our theoretical findings. Finally, two pseudo out-of-sample forecasting applications confirm the improved performance of our model averaging approach, which effectively combines forecasts with and without long-run restrictions at varying lag lengths.

Published Articles

- **Multistep Forecast Averaging with Stochastic and Deterministic Trends**
  (with Mohitosh Kejriwal and Xuewen Yu)
  Econometrics 11(4), 28
- **The Efficacy of Ability Proxies for Estimating the Returns to Schooling: A Factor Model-Based Evaluation**
  (with Mohitosh Kejriwal, Xiaoxiao Li, and Evan Totty)
  Journal of Applied Econometrics 39(1), 3-21

Working papers

- **An Improved Procedure for Retrospectively Dating the Emergence and Collapse of Bubbles**
  (with Mohitosh Kejriwal and Pierre Perron)
  Under Revision at Journal of Time Series Analysis
- **mbreaks: R package for Estimating and Testing Multiple Structural Changes in Linear Regression Models**
  (with Pierre Perron and Yohei Yamamoto)
  🔗 *CRAN official site.*
- **Are the trade agreements effective from the day they are signed? Evidence from India**

Fellowships, Honors, and Grants

Krannert Certificate for Outstanding Teaching	2021
Purdue University	
Certificate for Best Presentation	2020
KDSA PhD Research Symposium	
Ross Fellowship	2020
Purdue University	
Master Scholarship	2019
University of Texas at Austin	
1st Prize Winner of Arthur A. Smith Essay Contest ($1000)	2017
Dallas/Fort Worth Association for Business Economics	
Dean's List of Honor	2016
Texas Christian University	

Teaching Experience

Undergraduate courses

Teaching Assistant:

ECON 25100: Principles of Economics	Spring 2021
ECON 25200: Macroeconomics	Spring 2021
ECON 36000: Econometrics	Fall 2019
ECON 45100: Game Theory	Fall 2021
ECON 47100: Behavioral Economics	Fall 2020

Instructor:

ECON 21000: Principles of Economics	Summer 2021

Graduate courses

Teaching Assistant:

ECON 59000: Economic Forecasting	Spring 2023 – 2024
ECON 67000: Probability and Statistics	Fall 2021 – 2024
ECON 67200: Econometrics II	Spring 2022 – 2024

Research Experience and Other Employment

- Research Assistant for Professor Mohitosh Kejriwal, Purdue University — 2021 – 2024
- Research Assistant for Professor Mario Crucini, Purdue University — 2021
- Research Assistant for Dr. Mark A. Wynne, Federal Reserve Bank of Dallas — 2017

Professional Experience

Seminars, Presentations

2024: Midwest Econometrics Group, KDSA Research Symposium.

2023: KDSA Research Symposium.

2022: Midwest Econometrics Group, ESAM.

2021: First IU-Purdue Student Trade conference.

2020: KDSA Research Symposium.

Pre-2019: Federal Reserve Bank of Dallas, Dallas/Fort Worth Association for Business Economics.

Referee for:

Journal of Quantitative Economics

Additional Information

Citizenship	Vietnamese
Languages	Vietnamese (Native), English (Fluent)
Programming Skills	EViews, MATLAB, Python, STATA