Hongqiang Yan

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Education

Ph.D. in Economics, North Carolina State University   Raleigh, NC, 2018-2024(expected)
    Dissertation Title: Uniform Inference in High-dimensional Threshold Regression Models with Applications
    Dissertation Committee: Mehmet Caner (chair), Barry Goodwin, Zheng Li, Ilze Kalnina
M.S. in Economics, Texas A&M University   College Station, TX, 2016-2018
B.S. in Finance, Beijing Jiaotong University   Beijing, China, 2012-2016

Field of Interest

Econometrics, Applied Econometrics, Agricultural Economics

Working Papers

"Uniform Inference for High-dimensional Threshold Regression"
    In this paper, we study the scaled Lasso estimator of Lee et al. (2016) for high-dimensional threshold regression models and show how it may be desparsified in the sense of van de Geer et al. (2014) in order to construct asymptotically honest (uniform) confidence intervals. We establish oracle inequalities for the scaled Lasso only assuming non-subgaussian error terms and covariates. Next, we desparsify the scaled Lasso estimator and show how one can conduct uniformly valid inference on the parameters of the model and construct a uniformly valid estimator of the asymptotic covariance matrix. We illustrate the usefulness of our proposed estimation procedure via Monte Carlo simulations.

"Investigating Integration and Exchange Rate Pass-Through in World Maize Markets Using Inferential LASSO Methods" with Barry Goodwin and Mehmet Caner
    This paper investigates the extent of market integration in the world markets for maize. To address the shortcomings of existing models on spatial market integration, we adopt an approach towards inference and model selection using the desparsified LASSO method for high-dimensional threshold regression. Our results support the integration of global corn markets, especially when the existence of thresholds is accounted for. We identify important relationships between several variables representing domestic and world economic conditions.

Working in progress

"Non-parametric Estimation of Risk Preferences" with Xiaoyong Zheng and Zheng Li
    This paper proposes a nonparametric approach for estimating individual producers' risk preferences and risk premiums when facing uncertainty in both production and price. We allow for endogenous production inputs within the production function and propose a framework for deriving the risk premium function under expected utility of profit maximization. The econometric model accommodates production risk, price risk, and producer heterogeneity simultaneously, achieved through the series method in the presence of instrumental variables. We illustrate the usefulness of our proposed non-parametric procedure through Monte Carlo simulations.

"Effects of Soil Erosion on Mean Yield and Production Risk" with Roderick Rejesus, Serkan Aglasan, and Zheng Li
"Uniform Inference in High-dimensional Dynamic Panel Data Models with Threshold Effect"
"Uniform Inference in High-dimensional Random Coefficient Panel Data Models"

Presentations

AAEA Annual Meeting	Washington, DC, July, 2023(scheduled)
NC State University Graduate Student Research Symposium	Raleigh, NC, Apr, 2023
Midwest Econometrics Group Conference	East Lansing, MI, Oct 2022

Teaching Experience

Instructor	North Carolina State University

- Principles of Microeconomics (Undergraduate) — Spring 2023

Graduate Teaching Assistant	North Carolina State University

- Fundamentals of Microeconomics (Graduate) — Fall 2020, 2021, 2022
  summer math camp and recitations
- Applied Econometrics I (Graduate) — Fall 2018, 2020, 2021
  recitations
- Introduction to Commodity Futures Markets (Undergraduate & Graduate) — Fall 2022
- Microeconomic II (Doctoral) — Spring 2020
- Introduction to Econometric Methods (Graduate) — Spring 2020
- Principles of Microeconomics (Undergraduate) — Spring 2022, Fall 2019
- Public Finance (Undergraduate) — Spring 2019

Software Skills

R, Python, C++, Matlab, SAS, Stata, LaTeX

Honors and Awards

Jenkins Fellowship	North Carolina State University, 2023-2024
Goodnight Doctoral Fellowship	North Carolina State University, 2022-2023
Toussaint Scholarship	North Carolina State University, 2021-2022
Owens Graduate Fellowship	North Carolina State University, 2019-2020
Economics Graduate PCOM Scholarship	North Carolina State University, 2018-2019
Economics Graduate General Scholarship	Texas A&M University, 2016-2018
First Class Scholarship	Beijing Jiaotong University, 2015-2016

Dissertation Committee

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