

Junrong Liu

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Department of Economics

Rice University

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EDUCATION

- 08/08-present **Ph.D. in Economics**, Rice University, May,2014(expected)
Dissertation: Essays on Productivity and Panel Data Econometrics
Committee: Robin C. Sickles (advisor) Natalia M. Sizova David W. Scott
M.A. in Statistics, Rice University, May 2014(expected)
- 09/04-07/08 **B.A in Economics** and **B.S. in Mathematics**, Renmin University of China, July 2008

FIELDS OF SPECIALIZATION

Primary Field: Applied Econometrics, Bayesian Statistics

Secondary Fields: Productivity and Efficiency Analysis, Financial Economics

RESEARCH/TEACHING EXPERIENCE

- 03/09-present **Research Assistant**, for Professor Robin Sickles
- 09/09-present **Teaching Assistant**, Econ 511: Econometrics II (Graduate)
Econ 504: Advanced Economic Statistics (Graduate)
Econ 445: Managerial Economics
- 02/12-06/12 **Tutor**, for Econometrics Qualifying Exam for the 1st year Ph.D. students

RESEARCH PAPERS

1. A Panel Data Model with Time-variant Heterogeneity: A Bayesian Treatment with an Application to the Translog Distance Function (Job Market Paper)
A panel data model with unit-specific nonparametric time effects is considered, Bayesian inference techniques organized around MCMC are applied to implement the models. The performance of this model is compared to that of alternative models in the literature dealing with time varying effects. The method is applied in analyzing the U.S. banking industry.
2. Analyzing Bank Efficiency: Are “too-big-to-fail” Banks Efficient? (with Hulusi Inanoglu, Michael Jacobs, Jr. and Robin C. Sickles, working paper)
Use synthesized parametric and semi-parametric stochastic frontier models and Quantile Regression Methods for panel data to estimate the efficiencies of top 50 banks in the U.S.
3. Bayesian Treatments to Panel Data Models with an Application to Models of Productivity (With Robin C. Sickles and E.G. Tsionas, submitted)
We propose a Bayesian approach to estimate a panel data model with time-varying heterogeneous individual effects. The effects are considered as a function of time with unobserved common factors whose number is unknown and factor loadings are unit-specific. A Gibbs sampler is used to implement the model.
4. A Study of Productivity and Efficiency in the Mexican Energy Industry: The Case of Pemex (with Robin C. Sickles and Ha Ngyuen)
We study the optimizing behavior of Pemex by estimating the cost shares and undertake the estimation using duality between the cost and production function, which facilitates our specification. This approach allows us to find the cost shares under different levels of returns to scale. Our results indicate the presence of substantial distortions in cost shares. The suggestion is thus to increase the capital use and decrease the labor use to remove such distortions.
5. Semi-nonparametric Methods in the Stochastic Frontier Model (with Robin C. Sickles and Junhui Qian, working paper)

Unlike the traditional parametric or non-parametric methods, we assume the density function of the efficiency term v_i is spanned by Laguerre polynomials. We use a finite order polynomial to approximate the efficiency term and apply maximum likelihood methods to estimate parameters and standard errors in the Stochastic Frontier model.

PRESENTATIONS

Texas Econometrics Camp XVIII, Austin, Texas, 2013
Texas Econometrics Camp XVII, Houston, Texas, 2012
The Workshop on Chinese Productivity, Tsinghua University, Beijing, China, 2012

AWARDS

Graduate Fellowship, Rice University, 2008-2012
Conference Travel Award, Department of Economics, Rice University, 2012
Scholarship of Academic Merit, Renmin University of China 2005-2008

COMPUTER SKILLS AND LANGUAGES

Proficient with Computational Packages and languages (SAS Base, SAS Stat, SAS Macro, MATLAB, SQL, Python)
Statistics and Econometric Packages (R, STATA, EViews)
Skilled in Microsoft Office Applications, Adobe Dreamweaver, Illustrator, and LaTeX/Scientific Workplace
Chinese (native speaker), English (full proficiency), French (basic, 1 year in college)

REFERENCES

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