Chihwa KAO

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Address: Center for Policy Research
426 Eggers Hall
Syracuse University
Syracuse, NY 13244-1020

Telephone: (315) 443-3233
Fax: (315) 443-1081
Email: cdkao@maxwell.syr.edu
Homepage: http://faculty.maxwell.syr.edu/cdkao/

Education

Ph. D. (1983), Economics, SUNY at Stony Brook.
M.S. (1982), Applied Mathematics and Statistics, SUNY at Stony Brook.
B.A. (1974), Economics, Fu-Jen University, Taiwan.

Academic Positions

Chair, Professor of Economics, Syracuse University, 2010-.
Professor of Economics/Senior Research Associate, Syracuse University, 2000-.
Associate Professor of Economics/Senior Research Associate, Syracuse University, 1991-1999.
Assistant Professor of Economics, Syracuse University, 1985-1991.
Visiting Assistant Professor of Applied Mathematics and Statistics, SUNY at Stony Brook, Spring, 1985.
Associate Research Fellow, Chung-Hua Institute for Economic Research, 1983-1984.

Professional Experience

Vice President, Chinese Economic Association in North America, 1996, 1998.
President, Chinese Economic Association in North America, 2003.

Honors and Awards

Award for Excellence in Graduate Teaching, Department of Economics, Syracuse University, 1999.

Award for Senior Scholar Research Grant, Chiang Ching-kuo Foundation for International Scholarly Exchange, Spring 2000.

Selected Refereed Publications

Kao, C., Trapani, L., and Urga, G., (2011), “The Asymptotics for Panel Models with Common Shock,” *Econometric Reviews*.

Baltagi, B., Kao, C., and Na, S., (2011), “Test of Hypotheses in Panel Data Models When the Regressor and Disturbances are Possibly Nonstationary,’’ *Advances in Statistical Analysis,* 95, 329-350.

Baltagi, B., Kao, C., and Qu, F. (2011), “Testing for Sphericity in a Fixed Effects Panel Data Model,” *Econometrics Journal*, 14, 25-47.

Bai, J., Kao, C., and Ng, S. (2009), “Panel Cointegration with Global Stochastic Trends,” *Journal of Econometrics,* 149, 82-99.

Baltagi, B., Kao, C., and Liu, L. (2008), “Asymptotic Properties of Estimators for the Linear Panel Regression Model with Individual Effects and Serially Correlated Errors: The Case of Stationary and Non-Stationary Regressors and Residuals,“ *Econometrics Journal*, 11, 554-572.

Huang, H. M., Kao, C., and Urga, G. (2008), “Copula-Based Tests for Cross-Sectional Independence in Panel Models,” *Economics Letters*, 100, 224-228.

Bai, J., and Kao, C. (2006), “On the Estimation and Inference of a Panel Cointegration Model with Cross-Sectional Dependence,” in *Panel Data Econometrics: Theoretical Contributions and Empirical Applications,* Edited by Badi Baltagi.

Hong, Y., and Kao, C. (2004), “Wavelet-Based Testing for Serial Correlation of Unknown Form in Panel Models,” *Econometrica,* 72, 1519-1564.

Kao, C., Lee, L.-F., and Pitt, M., (2001), “Simulated Maximum Likelihood Estimation of the Linear Expenditure System with Binding Non-negativity Constraints,” *Annals of Economics and Finance*, 2, 215 - 255.

Baltagi, B. H., and Kao, C. (2000), “Nonstationary Panels, Cointegration in Panels and Dynamic Panels: A Survey,” *Advances in Econometrics*, 15, 7-51..

Kao, C., and Chiang, M-H. (2000), “On the Estimation and Inference of a Cointegrated Regression in Panel Data,” *Advances in Econometrics*, 15, 179-222.

Kao, C., Chiang, M-H., and Chen, B. (1999), "International R&D Spillovers: An Application of Estimation and Inference in Panel Cointegration," *Oxford Bulletin of Economics and Statistics*, 61, 691-709.

McCoskey, S., and Kao, C. (1999), "Testing the Stability of a Production Function with Urbanization as a Shift Factor," *Oxford Bulletin of Economics and Statistics*, 61, 671-690.

Kao, C. (1999), "Spurious Regression and Residual-Based Tests for Cointegration in Panel Data," *Journal of Econometrics*, 90, 1-44.

McCoskey, S., and Kao, C. (1998), "A Residual-Based Test of the Null of Cointegration in Panel Data," *Econometric Reviews*, 17, 57-84.

Kao, C., and Ross, S. (1995), "A CUSUM Test in the Linear Regression Model with Serially Correlated Disturbances," *Econometric Reviews*, 14, 331-346.

Kao, C., and Wu, C. (1994) "Rational Expectations, Information Signaling and Dividend Adjustment to Permanent Earnings," *Review of Economics and Statistics*, 76, 490-502.

Kao, C., and Wu, C. (1994), "Tests of Dividend Signaling Using A Generalized Tobit Friction Model," *Journal of Business, 67, 45-68.*

Kao, C., and Wu, C. (1990), "A Two-Step Estimation of Linear Models with Ordinary Unobserved Variables: The Case of Corporate Bonds," *Journal of Business and Economic Statistics*, 8, 317-325.

Kao, C., and Dutkowsky, D. (1989), "An Application of Nonlinear Bounded Influence Estimation to Aggregate Bank Borrowing from the Federal Reserve," *Journal of the American Statistical Association*, 84, 700-709.

Selected Working Papers

Baltagi, B., Kao, C., and Qu, F. (2011), "Lagrange Multiplier Test for Cross-sectional Dependence in Fixed Effects," revised and resubmitted to *Journal of Econometrics*.

Baltagi, B., Kao, C., and Liu, L. (2011), "The Estimation and Testing of a Linear Regression with Near Unit Root in the Spatial Autoregressive Error Term," submitted to *Spatial Economic Analysis*.

Baltagi, B., Kao, C., and Na, S. "Testing Cross-sectional Dependence in Panel Factor Model Using the Wild Bootstrap F-test," Revising and to be resubmitted to *Economertrics Journal.*

Kao, C., Trapani, L., and Urga, G. “Testing for Breaks in Cointegrated Panels,” revising and to be resubmitted to *Journal of Econometrics*.

Emerson, J., Kao, C., and Liu, L. (2010), “Estimating and Testing in Panel Data Models in the Presence of Autoregressive Error.” manuscript.

Baltagi, B., Kao, C., and Liu, L. (2009), “On the Estimation and Testing with Weak Instruments in Panel Data,” manuscript.

Feng, Q., Kao, C., and Lazarová, Š., “Estimation of Change Points in Panel Models,“ manuscript.

Selected Scholarly Papers and Addresses

“On the Existence and Uniqueness of the Maximum Likelihood Estimates for the Heteroscedastic Regression Models with the Data are Right-Censored,” presented at the winter meetings of the Econometric Society, Dallas, TX, December 1984.

“Censored Regression Diagnostics,” presented at the Econometric Society Meetings of Fifth World Congress, Cambridge, MA, August 1985.

“The Influence Function for the Switching Regression Model,” presented at the summer meeting of the Econometric Society, Durham, NC, June 1986.

“Bounded Influence Estimation for the Poisson-Jump Diffusion Process with Foreign Exchange Rates,” presented at the American Statistical Association Winter Conference, San Diego, January 1989.

“The Impact of Credit Ratings and Economic Factors on State Bond Yields,” presented at the summer meetings of the Econometric Society, Ann Arbor, Michigan, June 1989.

“The Estimation and Tests of a Partial Adjustment Model of Dividends with Rational Expectations,” presented at the summer meetings of the Econometric Society, Ann Arbor, Michigan, June 1989.

“Tests of Dividend Signaling Using A Generalized Tobit Friction Model,” presented at the American Finance Association, Washington, D. C., December 1990.

“Rational Expectations, Information Signaling and Corporate Dividend Behavior: An Empirical Investigation,” presented at Western Finance Association meetings, Jackson Lake Lodge of the Grand Teton National Park, Wyoming, June, 1991.

“Robust Estimation in Autoregressive Conditional Heteroskedasticity with Estimates of the Variance of Foreign Exchange Rates,” presented at the summer meetings of the Econometric Society, University of Pennsylvania, June, 1991.

“A CUSUM Test in the Linear Regression Model with Serially Correlated Disturbances,” presented at the summer meetings of the Econometric Society, University of Washington, Seattle, June, 1992.

“A GARCH with a Generalized Tobit of Exchange Rates in Taiwan,” presented at ASSA/CEANA, Anaheim, California, January, 1993.

“Some New Approaches to Formulate and Estimate Taiwan's Exchange Rates: Friction-Bernoulli Jump Diffusion and Friction-GARCH,” presented at Far Eastern Meeting of the Econometric Society, Taipei, Taiwan, June, 1993.

“How Important is the Errors-in-Variables in the Cointegrated Regression ?” presented at ASSA/CEANA, Washington DC, January, 1995.

“Maximum Simulated Likelihood Estimation of Consumer Demand Systems with Binding Non-Negativity Constraints," presented at the Econometric Society Meetings of the Seventh World Congress, Tokyo, Japan, August 1995.

“International R&D Spillovers Revisited,” presented at ASSA/CEANA Meetings, San Francisco, January 1996.

“Residual-Based Tests of the Null of Cointegration in Panel Data,” presented at ASSA/CEANA Meetings, New Orleans, January 1997.

“On the Estimation and Inference of a Cointegrated Regression in Panel Data,” presented at the winter meetings of the Econometric Society, Chicago, January 1998.

“International R&D Spillovers: An Application of Estimation and Inference in Panel Cointegration,” presented at ASSA/CEANA Meetings, Chicago, January 1998.

“A Monte Carlo Comparison of Tests for Cointegration in Panel Data," presented at The Eighth International Conference on Panel Data, Göteborg, June 1998.

“Testing the Stability of a Production Function with Urbanization as a Shift Factor: An Application of Non-Stationary Panel Data Techniques," presented at The Eighth International Conference on Panel Data, Göteborg, June 1998.

“Spurious Regression and Residual-Based Tests for Cointegration in Panel Data,” presented at the summer meetings of the Econometric Society, Montreal, June, 1998.

“Testing the Stability of a Production Function with Urbanization as a Shift Factor: An Application of on-Stationary Panel Data Techniques,” presented at ASSA/CEANA Meetings, New York, January 1999.

“On the Estimation of a Linear Time Trend Regression with a One-Way Error Component Model in the Presence of Serially Correlated Errors,” presented at Far Eastern Meeting of the Econometric Society, Singapore, July, 1999.

“Testing for Structural Change of a Time Trend Regression in Panel Data,” presented at the winter meetings of the Econometric Society, Boston, January 2000.

“Testing for Structural Change of a Cointegrated Regression in Panel Data, ” presented at The 9th International Conference on Panel Data, Geneva, June 2000.

“Wavelet-Based Testing for Serial Correlation of Unknown Form in Panel Models, ” presented at the summer meetings of the Econometric Society, College Park, University of Maryland, June, 2001.

“Wavelet-Based Testing for Serial Correlation of Unknown Form in Panel Models, ” presented at Far Eastern Meeting of the Econometric Society, Kobe, July, 2001.

“Wavelet-Based Testing for Serial Correlation of Unknown Form in Panel Models, ” presented at The Fifth ICSA International Conference, Hong Kong, August, 2001.

“Time Series Properties in Panel Data, ” presented (an invited speaker) at the 10th International Conference on Panel Data, Berlin, July 2002.

“On the Estimation and Inference of a Panel Cointegration Model with Cross-Sectional Dependence, ” presented at European Meeting of the Econometric Society, Madrid, August, 2004.

“The Asymptotic for Panel Models with Common Shock” presented at the Econometric Society Meetings of the World Congress, London, 2005.

“Panel Cointegration with Global Stochastic Trends” presented at the AEA/CEANA Meetings, Chicago, January, 2007.

“Asymptotic Properties of Estimators for the Linear Panel Regression Model with Individual Effects and Serially Correlated Errors: The Case of Stationary and Non-Stationary Regressors and Residuals“, presented at the Midwest Econometrics Group, St. Louis, October, 2007.

“Testing for Sphericity in a Fixed Effects Panel Data Model,” presented at the Far Eastern Meeting of the Econometric Society, Tokyo, August, 2009.

"Lagrange Multiplier Test for Cross-sectional Dependence in Fixed Effects, presented at the 17th International Conference on Panel Data, Montreal, July 2011.

Courses Taught

Undergraduate

Intermediate Microeconomics
Microeconomics with Calculus
Statistics
Econometrics
Economic Forecasting
Mathematical Economics
Mathematical Finance
Finaicial Econometrics

Ph.D.

Introduction to Probability and Statistics
Non-Linear Econometric Theory
Advanced Econometric Theory
Time Series Econometrics
Mathematics for Economics
Advanced Mathematical Economics
Financial Econometrics
Mathematical Finance
Econometrics of Panel Data
Spatial Econometrics
Nonparametric Econometrics
Asymptotics in Econometrics

Completed Ph.D. Dissertations Supervised and Initial Placement

Suzanne McCoskey (1997), "Three Essays on Cointegration in Panel Data," United States Naval Academy.

Bangtian Chen (1997), "Cointegration in Panel Data," Security First Technologies.

Jamie Emerson (2001), "Essays on Estimation and Testing in Nonstationary Panel Data," Indiana University of Pennsylvania.

Qu Feng (2009), "Essays on Tests for Cross-sectional Dependence & Estimation of Change Points in Panel Data Models, " Nanyang Technological University, Singapore.

SangGon Na (2011), “Essays on Testing Hypotheses When Non-stationarity Exists in Panel Data Models,” Ministry of Strategy and Finance, Republic of Korea.

Professional Activity:

Referee for:

Journal of Econometrics, Econometric Reviews, Econometrics Journal, Econometric Theory, Review of Economics and Statistics, Review of Economic Studies, Journal of Business and Economic Statistics, Journal of Applied Econometrics, Statistics and Probability Letters, Journal of Public Economics, Journal of Urban Economics, European Economic Review, Journal of Business, National Tax Journal, Taiwan Economic Review, Academia Economic Papers, Review of Quantitative Finance and Accounting, Southern Economic Journal, Empirical Economics, Spatial Economic Analysis, Sociological Methodology, Urban Studies, Journal of Financial Studies, Journal of Statistical Computation and Simulation, Communications in Statistics – Theory and Methods, International Review of Economics and Finance, Social Sciences and Humanities Research Council of Canada, Research Grants Council of Hong Kong, National Science Foundation, National School of Development, Peking University, China.