

March 2008

**JOHN C. CHAO**

Department of Economics  
University of Maryland  
College Park, MD 20742  
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**Education:**

Yale University, Ph.D. in Economics, 1994  
Dissertation Title: *Essays in Bayesian Econometrics*  
Dissertation Committee: Peter C. B. Phillips (Chair), Donald Andrews, Christopher Sims

Wharton School, University of Pennsylvania, B.S., 1987  
Summa Cum Laude with Concentrations in Accounting, Finance, and Economics

**Research Interest:**

Many Weak Instruments, Bayesian Econometrics, Time Series Econometrics, Empirical Asset Pricing,

**Awards, Fellowships, and Grants:**

Department Teaching Awards: Spring 1996, Fall 1998, Spring 2000, Fall 2004  
Royal Economic Society Travel Grant, 1997  
Graduate Research Board Summer Research Award, University of Maryland, 1996  
Yale Dissertation Fellowship, 1993-1994  
Cowles Foundation Fellowship, 1993  
Yale Graduate Fellowship, 1988-1992

**Academic Employment:**

2002-	Associate Professor of Economics, University of Maryland
1995-2002	Assistant Professor of Economics, University of Maryland
1994-1995	Assistant Professor of Economics, Pennsylvania State University

### **Visiting Posts and Affiliate Appointment:**

Faculty Member (2003 - )  
Statistics Consortium, University of Maryland

Visiting Associate Professor (December 2007 - January 2008)  
School of Economics, Shanghai University of Finance and Economics

Visiting Associate Professor (2002-03)  
Department of Economics, Yale University

Visiting Research Associate (1999)  
Institute of Economics, Academia Sinica

### **Other Employment:**

1987-1988      Staff Auditor, Price Waterhouse

### **Professional Activities:**

Associate Editor, *Econometric Theory*, 2006 -

Member of Editorial Board, **Journal of International and Global Economic Studies**, 2007 -

Member of Editorial Board, *International Journal of Applied Economics*, 2003 -

Vice President, Chinese Economic Association in North America, 2003

Referee Services: *Econometrica*, *Econometric Reviews*, *Econometric Theory*, *Econometrics Journal*, *Journal of Applied Econometrics*, *Journal of Business and Economic Statistics*, *Journal of Econometrics*, *Journal of Forecasting*, *Journal of Statistical Computation and Simulation*, *Journal of Money, Credit, and Banking*, *National Science Foundation*, *Review of Economic Studies*.

### **Refereed Publications:**

Chao, J. C. and N. R. Swanson, 2007, "Alternative Approximations of the Bias and MSE of the IV Estimator under Weak Identification with Application in Bias Correction," *Journal of Econometrics*, 137, 515-555.

Avramov, D. And J.C. Chao, 2006, "An Exact Bayes Test of Asset Pricing Models with Application to International Markets," *Journal of Business*, 79, 293-323.

Chao, J. C. and N. R. Swanson, 2005, "Consistent Estimation with a Large Number of Weak Instruments," *Econometrica*, 73, 1673-1692.

Chao, J. C. and P. C. B. Phillips, 2002, "Jeffreys Prior Analysis of the Simultaneous Equations Model in the Case with  $n + 1$  Endogenous Variables," *Journal of Econometrics*, 111, 251-283.

Chao, J. C., V. Corradi and N. R. Swanson, 2001, "Out-of-Sample Tests for Granger Causality," *Macroeconomic Dynamics*, 5, 598-620.

Chao, J. C., V. Corradi and N. R. Swanson, 2001, "Data Transformation and Forecasting in Models with Unit Roots and Cointegration," *Annals of Economics and Finance*, 2, 59-76.

Chao, J. C. and N. R. Swanson, 2000, "Tests of Non-nested Hypotheses in Nonstationary Regressions with an Application to Modeling Industrial Production," *Macroeconomic Dynamics*, 4, 42-72.

Chao, J. C. and P. C. B. Phillips, 1999, "Model Selection in Partially Nonstationary Vector Autoregressive Processes with Reduced Rank Structure," *Journal of Econometrics*, 91, 227-271.

Chao, J. C. and P. C. Phillips, 1998, "Posterior Distributions in Limited Information Analysis of the Simultaneous Equations Model Using the Jeffreys Prior," *Journal of Econometrics*, 87, 49-86.

Chao, J. C. and C. Chiao, 1998, "Testing the Expectations Theory of the Term Structure of Interest Rates using Model Selection Methods," *Studies in Nonlinear Dynamics and Econometrics*, 2, 95-108.

Chao, J. C. and P. C. B. Phillips, 1996, "An Empirical Bayesian Approach to Cointegration Rank Selection and Test of the Present Value Model for Stock Prices" in: Wesley O. Johnson, Jack C. Lee, and Arnold Zellner (eds.), *Modeling and Prediction: Honoring Seymour Geisser* (New York: Springer-Verlag), 325-349.

### **Other Publications**

Chao, J. C. and N. R. Swanson, 2006, "Asymptotic Normality of Single-Equation Estimators for the Case with a Large Number of Weak Instruments" in: D. Corbae, S. Durlauf, and B. Hansen (eds.) *Econometric Theory and Practice: Frontiers of Analysis and Applied Research*, (New York: Cambridge University Press), 82-124.

Avramov, D., J. C. Chao and T. Chordia, 2004, "Hedging Against Liquidity Risk and Short Sale Constraints," *The ICAFI Journal of Financial Risk Management*, 1, 19-39.

### **Working Papers:**

“Instrumental Variable Estimation with Heteroskedasticity and Many Instruments,” (with J.A. Hausman, W.K.Newey, N.R.Swanson, and T. Woutersen), Working Paper, August 2007.

“Asymptotic Distribution of JIVE in a Heteroskedastic IV Regression with Many Instruments,” (with J.A. Hausman, W.K.Newey, N. R. Swanson, and T. Woutersen), Working Paper, August 2007.

“Multiple Shrinkage Estimation of the IV Regression Model with Many Weak Instruments,” (with W.K. Newey and N. R. Swanson), Working Paper, June 2007.

### **Research in Progress:**

“Panel Data Structural Modeling with Weak Instrumentation,” (with P.C.B. Phillips), Preliminary Draft, November 2005.

“Jackknife GMM with Many Weak Moment Conditions,” (with W.K.Newey and N.R.Swanson).

### **Selected Conference Presentations:**

Sino-Korean Econometrics Conference, 2007  
Far Eastern Meeting of the Econometric Society, 2004  
North American Winter Meeting of the Econometric Society, 2004  
NSF-NBER Conference on Weak and/or Many Instruments, 2003  
Global Finance Conference, 2002  
Annual Meetings of the Chinese Economic Association in North America, 1996 and 2002  
North American Summer Meeting of the Econometric Society, 2001  
Econometric Society World Congress, 2000  
ICSA Applied Statistics Symposium, 1999  
European Conferences of the Econometrics Community (EC<sup>2</sup>), 1997  
Meeting of the International Society for Bayesian Analysis, 1994

### **Invited Seminars:**

2007 - UCLA, Temple University, Vanderbilt University

2006 - University of Montreal, Academia Sinica

2005 - Rice University, Texas A&M University, University of Toronto, Virginia Tech

2004 - Academia Sinica, Syracuse University

2003 - Queen’s University, University of Pittsburgh, Yale University

2002 - Federal Reserve Bank of Atlanta, North Carolina State University

2001 - University of Illinois, University of Virginia

2000 - Cornell University, SUNY-Albany, University of California - San Diego, University of Pennsylvania, University of Rochester

1999 - Academia Sinica, National Taiwan University

1997 - University of Pennsylvania

1994 - Duke University (Institute of Statistics and Decision Science), Ohio State University, Pennsylvania State University, University of Rochester, University of Toronto, Wayne State University

**Teaching:**

Undergraduate teaching: various statistics and econometrics courses.

Graduate (Ph.D.) teaching: various courses on probability and statistics and on regression and also a course on non-stationary time series.