Curriculum Vitae

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Tao Zha

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Personal Information

Born in 1962
U.S. citizen
Married with two children

Education

Ph.D. Economics: University of Minnesota, December 1992
M.A. Economics: Washington State University, May 1988
M.A. Statistics (High Honors):
Southwestern University of Economics and Finance (China), June 1985
B.S. Mathematics:
Chengdu University of Technology (China), June 1982

Major Fields of Ph.D. Study

Financial Economics
Econometrics

Doctoral Dissertation

"Business Cycles, Asymmetric Information, and Bankruptcy Law". Thesis committee members: Edward Green (Chair), Hidehiko Ichimura, Ravi Jagannathan, Christopher Sims, and Neil Wallace.

Areas of Recent Research Interest

Macroeconomics; Econometrics; Financial Economics; Learning Dynamics.

Current Positions

Director, Center for Quantitative Economic Research, ***Federal Reserve Bank of Atlanta***, 2008-.

Professor of Economics, ***Emory University***, 2009-.

Research Associate, Monetary Economics Program, ***National Bureau of Economic Research***, 2011-.

Research Associate, Economic Fluctuations and Growth Program, ***National Bureau of Economic Research***, 2012-.

Past Positions

Visiting Distinguished Professor, Economics Department, *Emory University*, 2008-2009.

Adjunct Professor, Economics Department, Emory University, 2007-2008.

Senior Policy Adviser, Research Department, Federal Reserve Bank of Atlanta, 2006-2008.

Policy Adviser, Research Department, Federal Reserve Bank of Atlanta, 2002-2006.

Assistant Vice President, Research Department, Federal Reserve Bank of Atlanta, 2000-2002.

Senior Economist, Research Department, Federal Reserve Bank of Atlanta, 1999-2000.

Economist II, Research Department, Federal Reserve Bank of Atlanta, 1995-1999.

Assistant Professor of Economics, University of Saskatchewan, 1992-1995.

Visiting Researcher, Department of Economics, Yale University, 1990-1992.

Research Assistant, Institute for Empirical Macroeconomics, Research Department, Federal Reserve Bank of Minneapolis, 1989-1990.

Intern Economist, Asian Department, International Monetary Fund, 1987.

Staff Member, Head Office, People's Bank of China, 1985-1986.

Editorial Boards and Professional Services

Associate Editor, *Econometrica*, 2012-.

Associate Editor, *Journal of Econometrics*, 2007-.

Associate Editor, *Macroeconomic Dynamics*, 2007-2012.

Associate Editor, *Journal of Applied Econometrics*, 2004-.

Co-Editor, *Annals of Economics and Finance*, 2000-.

Member, Advisory Committee of *Dynare*, CEPREMAP, Center for Economic Research and its Applications, France, 2005-.

Lead Member, Scientific Committee, *EC-squared (EC)2, Florence 2011*, Econometrics for Policy Analysis: After the Crisis and Beyond, European University Institute and Universita degli Studi di Firenze, Florence, Italy, 15-17 December 2011.

Member, *Econometric Society* Program Committee on Macroeconomics, 2009 North American Winter Meeting, San Francisco, CA, January 3-5, 2009.

Member, Program Committee, *14th International Conference* on Computing in Economics and Finance, University La Sorbonne, Paris, France, June 26-29, 2008.

Referee for NSF, SSHRC, and various academic journals.

Honors and Other Activities

National Science Foundation Grant SES-1127665, 2011-2015.

Wim Duisenberg Research Fellowship, European Central Bank, 2012.

Works cited by the Nobel Economic Sciences Prize Committee 2011: (1) "Vector Autoregressions," The New Palgrave Dictionary of Economics 2nd Edition (eds S.N. Durlauf and L.E. Blume); (2) "Were There Regime Switches in U.S. Monetary Policy?" (coauthored with Christopher Sims), AER 2006; (3) "Shocks and Government Beliefs: The Rise and Fall of American Inflation" (coauthored with Thomas Sargent and Noah Williams), AER 2006.

Second prize for best papers in the "The Phillips Curve and the Natural Rate of Unemployment," conference at the Kiel Institute for the World Economy, "Asymmetric Expectation Effects of Regime Switches in Monetary Policy" (coauthored with Zheng Liu and Daniel F. Waggoner), June 2007.

Abramson Scroll Award for Outstanding Articles in Business Economics, "Evaluating

Wall Street Journal Survey Forecasters: A Multivariate Approach" (Coauthored with Robert A. Eisenbeis and Daniel F. Waggoner), 2002.

Walter Helen Fellowship for Public Policy, University of Minnesota, 1991-1992.

Invited Special Guest, Head Table, American Economic Association Nobel Luncheon Reception Honoring Thomas J. Sargent and Christopher A. Sims, ASSA meetings at San Diego, 5 January 2013.

Invited Speech, Conference in Honor of 2011 Nobel Laureate Christopher A Sims's Contribution to Econometrics and Macroeconomics, University of Chicago and Princeton University, 19-20 October 2012.

Invited Speech, Northwestern-Tsinghua Macro Conference on "Financial Frictions, Sentiments, and Aggregate Fluctuations," Northwestern University and Tsinghua University, Beijing, China, 21-22 August 2012.

Overview Lecture, European Central Bank's WGEM Workshop"The Role of Non-Linear Methods in Empirical Macroeconomics and Forecasting," Frankfurt, Germany, 1 September 2011.

CIDE Lectures, Econometrics Summer School, Italian Center for Econometrics, Bertinoro, Italy, June 2011.

Craig Miemstra Memorial Lecture, 19th Annual Symposium on "Nonlinear Aspects of the Financial Crisis: Theoretical and Empirical Analysis," the Society of Nonlinear Dynamics and Econometrics (SNDE), Institute for International Economic Policy, Elliott School of International Affairs, George Washington University, Washington D.C., 17-18 March 2011.

Invited Speech, 1st European Conference on Bayesian Econometrics, Econometric and Tinbergen Institutes, Erasmus University Rotterdam, Rotterdam, Netherlands, 5-6 November 2010.

Keynote Speech, 2010 Shanghai Macroeconomics Workshop, School of Economics, Shanghai University of Finance and Economics, China, June 25-26, 2010.

Invited Lecture, Hong Kong Institute for Monetary Research, Hong Kong Monetary Authority, Hong Kong, June 21-23, 2010.

Keynote Speech, Why Do We Need to Go Beyond Gaussianity in Structural Modeling, Second International Conference in memory of Carlo Giannini, Banca d'Italia, Rome, Italy, January 19-20, 2010.

Invited Speech, Do Credit Constraints Amplify Macroeconomic Fluctuations?, European Central Bank, Frankfurt, Germany, January 18, 2010.

Invited Speech, Conference to Mark Twenty Years of Inflation Targeting, Sponsored by the Reserve Bank of New Zealand and the Center for International Economics and Development, Reserve Bank of New Zealand, Wellington, New Zealand, December 17-18, 2009.

Invited Speech, Workshop on Monetary Policies in Open Economies, Reserve Bank of Australia, Sydney, Australia, December 14-15, 2009.

Keynote Speech, 5th annual DYNARE Conference on "Monetary Policy, DSGE Modeling, and Computational Methods," Norges Bank, Norway, August 31-September 1, 2009.

Invited Speech and Visiting Scholar, Bank of Korea, May 21-25, 2008.

Invited Lectures, Advanced Graduate Courses, Department of Economics, UCLA, November 26-30, 2007.

Visiting Scholar, Reserve Bank of New Zealand, July 2007.

Invited Lectures, Bank of Israel, May 7-9, 2007.

Visiting Scholar, European Central Bank, October 2006.

Invited Lectures, Dynare Workshop on Learning and Monetary Policy, Paris, October 2005.

Invited Speech, European Central Bank, February 2005.

Invited Speech, Conference on "Monetary Policy and VAR analysis," Sveriges Riksbank, September 2002.

Visiting Scholar, Congressional Budget Office, Washington D.C., December 2000.

Visiting Scholar, Reserve Bank of Australia, Sydney, February-March 2000.

Visiting Scholar, Federal Reserve Bank of Chicago, February 1997.

Working Papers

"Land Prices and Unemployment", May 2012. With Zheng Liu and Jianjun Miao.

"Asset Pricing and Income Inequality in a Heterogenous Agent Production Economy", June 2009. With Zheng Liu and Pengfei Wang.

"Local and Global Identification of DSGE Models: a Simultaneous-Equation Approach", November 2008. With Martin Fukač and Daniel F. Waggoner.

Published Research Articles

"Land-Price Dynamics and Macroeconomic Fluctuations", ***Econometrica***, forthcoming. With Zheng Liu and Pengfei Wang.

"Confronting Model Misspecification in Macroeconomics", ***Journal of Econometrics***, December 2012, volume 171, issue 2, pages 167-184. With Daniel F. Waggoner.

"Minimal State Variable Solutions to Markov-Switching Rational Expectations Models", ***Journal of Economic Dynamics and Control***, 2011, volume 35, number 12, pages 2150-2166. With Roger E.A. Farmer and Daniel F. Waggoner.

"Sources of Macroeconomic Fluctuations: A Regime-Switching DSGE Approach", ***Quantitative Economics***, 2011, volume 2, pages 251-301. With Zheng Liu and Daniel F. Waggoner.

"Structural Vector Autoregressions: Theory of Identification and Algorithms for Inference", ***Review of Economic Studies***, 2010, volume 77, pages 665-696. With Juan Rubio-Ramirez and Daniel F. Waggoner.

"Generalizing the Taylor Principle: Comment", ***American Economic Review***, 2010 (March), volume 100, issue 1, pages 608-617. With Roger E.A. Farmer and Daniel F. Waggoner.

"Understanding Markov-Switching Rational Expectations Models", ***Journal of Economic Theory***, 2009 (November), volume 144, issue 6, pages 1849-1867. With Roger E.A. Farmer and Daniel F. Waggoner.

"The Conquest of South American Inflation", ***Journal of Political Economy***, 2009 (April), volume 117, number 2, pages 211-256. With Thomas J. Sargent and Noah Williams.

"Asymmetric Expectation Effects of Regime Switches in Monetary Policy", ***Review of Economic Dynamics***, 2009 (April), volume 12, number 2, pages 284-303. With Zheng Liu and Daniel F. Waggoner.

"Learning, Adaptive Expectations, and Technology Shocks", ***Economic Journal***, 2009 (March), volume 119, issue 536, pages 377-405. With Kevin X.D. Huang and Zheng Liu.

"Indeterminacy in a Forward Looking Regime Switching Model", ***International Journal of Economic Theory***, 2009 (March), volume 5, pages 69-84. With Roger

E.A. Farmer and Daniel F. Waggoner.

"Methods for Inference in Large Multiple-Equation Markov-Switching Models", ***Journal of Econometrics***, 2008, volume 146, issue 2, pages 255-274. With Christopher A. Sims and Daniel F. Waggoner.

"Normalization in Econometrics", ***Econometric Reviews***, 2007, volume 26, numbers 2-4, pages 221-252. Special issue on"Bayesian Dynamic Econometrics." With James D. Hamilton and Daniel F. Waggoner.

"Shocks and Government Beliefs: The Rise and Fall of American Inflation", ***American Economic Review***, 2006 (September), volume 96, number 4, pages 1193-1224. With Thomas J. Sargent and Noah Williams.

"Does Monetary Policy Generate Recessions?", ***Macroeconomic Dynamics***, 2006 (April), volume 10, number 2, pages 231-272. With Christopher A. Sims.

"Were There Regime Switches in US Monetary Policy?", ***American Economic Review***, 2006 (March), volume 96, number 1, pages 54-81. With Christopher A. Sims.

"Modest Policy Interventions", ***Journal of Monetary Economics***, 2003 (November), volume 50, issue 8, pages 1673-1700. With Eric M. Leeper.

"A Gibbs Sampler for Structural Vector Autoregressions", ***Journal of Economic Dynamics and Control***, 2003 (November), volume 28, issues 2, papges 349-366. With Daniel F. Waggoner.

"Likelihood Preserving Normalization in Multiple Equation Models", ***Journal of Econometrics***, 2003 (June), volume 114, issue 2, pages 329-347. With Daniel F. Waggoner.

"Evaluating Wall Street Journal Survey Forecasters: A Multivariate Approach", ***Business Economics***, 2002 (July), volume 37, issue 3, pages 11-21. With Robert A. Eisenbeis and Daniel F. Waggoner.

"Quantifying the Uncertainty about the Half-Life of Deviations from PPP", ***Journal of Applied Econometrics***, 2002 (March-April), volume 17, issue 2, pages 107-125. With Lutz Kilian.

"Bankruptcy Law, Capital Allocation, and Aggregate Effects: A Dynamic Heterogeneous Agent Model with Incomplete Markets", ***Annals of Economics and Finance***, 2001 (November), volume 2, issue 2, pages 379-400.

"Assessing Simple Policy Rules: A View from a Complete Macroeconomic Model", Federal Reserve Bank of St. Louis ***Review*** (the symposium on monetary policy rules sponsored by Federal Reserve Bank of St. Louis and Stanford University) , 2001 (July-August), volume 83, issue 4, pages 83-110. With Eric M. Leeper.

"Conditional Forecasts in Dynamic Multivariate Models", ***Review of Economics and Statistics***, 1999 (November), volume 81, issue 4, pages 639-651. With Daniel F. Waggoner.

"Error Bands for Impulse Responses", ***Econometrica***, 1999 (September), volume 67, issue 5, pages 1113-1155. With Christopher A. Sims.

"Block Recursion and Structural Vector Autoregressions", ***Journal of Econometrics***, 1999 (June), volume 90, issue 2, page 291-316.

"Trends in Velocity and Policy Expectations", ***Carnegie-Rochester Conference Series on Public Policy***, 1998 (December), volume 49, pages 265-304. With David B. Gordon and Eric M. Leeper.

"Bayesian Methods for Dynamic Multivariate Models", ***International Economic Review***, 1998 (November), volume 39, issue 4, pages 949-968. With Christopher A. Sims.

"Identifying Monetary Policy in a Small Open Economy under Flexible Exchange Rates", ***Journal of Monetary Economics***, 1997 (August), volume 39, issue 3, pages 433-448. with David O. Cushman.

"What Does Monetary Policy Do?", ***Brookings Papers on Economic Activity***, 1996, issue 2, pages 1-63. With Eric M. Leeper and Christopher A. Sims.

Other Publications

"Vector Autoregressions," *New Palgrave Dictionary of Economics*, September 2008, 2nd edition, eds. Steven N. Durlauf and Lawrence E. Blume. Palgrave Macmillan (http://www.dictionaryofeconomics.com/article?id=pde2008_V000066)

"Normalization", *International Encyclopedia of the Social Sciences*, 2008, 2nd edition, volume 5, pages 533-534, ed. William A. Darity, Jr. Macmillan Reference/Thomson Publishing, Detroit, USA.

"Comment on An and Schorfheide's Bayesian Analysis of DSGE Models", *Econometric Review*, 2007, volume 26, numbers 2-4, pages 205-210. Special issue on"Bayesian Dynamic Econometrics."

"Transparency, Expectations, and Forecasts", Federal Reserve Bank of Atlanta *Economic Review*, First Quarter 2006, volume 91, number 1, pages 1-25. With Andy

Bauer, Robert A. Eisenbeis, and Daniel F. Waggoner.

"Introduction: Monetary Policy and Learning", *Review of Economic Dynamics*, April 2005, volume 8, number 2, pages 257-261. With Lee E. Ohanian and Marco Del Negro.

"Forecast evaluation with cross-sectional data: The Blue Chip Surveys", Federal Reserve Bank of Atlanta *Economic Review*, 2003, issue Q2, pages 17-31. With Andy Bauer, Robert Eisenbeis, and Daniel Waggoner.

"Monetary Policy and Racial Unemployment Rates", Federal Reserve Bank of Atlanta *Economic Review*, 4th Quarter 2000, volume 85, issue 4, pages 1-16. With Madeline Zavodny.

"Evaluating the Effects of Monetary Policy with Economic Models", Federal Reserve Bank of Atlanta *Economic Review*, 4th Quarter 1999, volume 84, issue 4, pages 4-15.

"A Dynamic Multivariate Model for Use in Formulating Policy", Federal Reserve Bank of Atlanta *Economic Review*, 1st Quarter 1998, volume 83, issue 1, pages 16-29.

"Identifying Monetary Policy: A Primer", Federal Reserve Bank of Atlanta *Economic Review*, 2nd Quarter 1997, volume 82, issue 2, pages 26-43.

Unpublished Papers, Notes, Slides

"Understanding the New-Keynesian Model When Monetary Policy Switches Regimes", *NBER Working Paper* 12965, 2007. With Roger Farmer and Dan Waggoner.

"Markov-Switching Structural Vector Autoregressions: Theory And Application", *Federal Reserve Bank of Atlanta Working Paper 2005-27*, December 2005. With Juan Rubio-Ramirez and Dan Waggoner.

"Bayesian Econometrics of Learning Models", *Lecture Notes for the October 2005 Dynare Workshop on Learning and Monetary Policy.*

"MCMC Method for Markov Mixture Simultaneous-Equation Models: A Note", October 2004. With Christopher A. Sims.

"Identification Issues in Vector Autoregressions", 1997. With Daniel F. Waggoner.

Selected Conferences Organized

International Conference on "Macroeconomic Modeling in Times of Crisis" in Honor of Lawrence Christiano. Sponsored by Banque de France, Cepremap, Atlanta Fed CQER, and Centre d'analyse Strateglique. October, 25-26, 2012. Banque de France, Paris, France.

Conference in Honor of 2011 Nobel Laureate Christopher A. Sims. Sponsored by Princeton University, University of Chicago, and Atlanta Fed CQER. October 19-20, 2012. Princeton University, Princeton, New Jersey.

Workshop on "Methods and Applications for Dynamic Stochastic General Equilibrium". Sponsored by NBER and Atlanta Fed CQER. October 12-13, 2012. Federal Reserve Bank of Atlanta, Atlanta, Georgia.

Seventh Dynare Conference. Plenary speakers: Lars Peter Hansen (University of Chicago) and Giorgio Primiceri (Northwestern University). Sponsored by Atlanta Fed CQER, Banque de France, DSGE-net, and CEPREMAP. September 9-10, 2011. Federal Reserve Bank of Atlanta, Atlanta, Georgia.

New Approaches to Fiscal Policy. Sponsored by Atlanta Fed CQER. January 8-9, 2010. Federal Reserve Bank of Atlanta, Atlanta, Georgia.
`http://www.frbatlanta.org/news/conferences/10fiscal_policy.cfm`.