# Juan F. Rubio-Ramírez

Professor Economics Department Emory University Email: jrubior@emory.edu

### Education

- 1) Ph.D. Economics, University of Minnesota, December 2001.
- 2) M.Sc. Economics and Finance, CEMFI, Madrid, Spain, June 1997.
- 3) B.A. Economics, UAB, Barcelona, Spain, June 1995.

## Experience

- 1) Charles Howard Candler Professor, Emory University, since 2017.
- 2) Professor, Emory University, since 2015.
- 3) Visiting Scholar, FRB Cleveland since 2015.
- 4) Professor, Duke University, 2010-2015.
- 5) FEDEA Professor, since 2009.
- 6) Associate Professor, Duke University, 2006-2010.
- 7) Visiting Scholar, Bank of Spain, since 2016.
- 8) Visiting Scholar, European Central Bank, since 2015.
- 9) Visiting Scholar, Federal Reserve Bank Philadelphia, since 2009.
- 10) Visiting Scholar, Federal Reserve Bank St. Louis, since 2009.
- 11) Visiting Scholar, Federal Reserve Bank Atlanta, since 2006.
- 12) Economist and Associate Policy Advisor, Federal Reserve Bank Atlanta, 2005-2006.
- 13) Economist and Assistant Policy Advisor, Federal Reserve Bank Atlanta, 2001-2005.
- 14) Research Assistant, Federal Reserve Bank Minneapolis, 2000-2001.
- 15) Teaching Assistant, University of Minnesota, 1999-2000.

## Research Grants

- 1) National Science Foundation, "Perturbation methods for Markov-switching models," 2012-2015.
- 2) National Science Foundation, "New Bayesian Methods for the Estimation of DSGE Models," 2007-2011.
- 3) University of Minnesota Supercomputer Institute, "Computation and Estimation of Dynamic General Equilibrium Models with Microeconomic Heterogeneity," 2000–2003.

## Refereed Publications

- 1) "Narrative Sign Restrictions" with Juan Antolín-Díaz (Fulcrum Asset Managment) forthcoming in *American Economic Review*.
- 2) "Inference Based on SVARs Identified with Sign and Zero Restrictions: Theory and Applications" forthcoming in *Econometrica* with Jonas E. Arias (Federal Reserve Board) and Daniel F. Waggoner (Federal Reserve Bank of Atlanta).
- 3) "The Pruned State-Space System for Non-Linear DSGE Models: Theory and Empirical Applications" forthcoming *Review of Economic Studies* with Martin Andreasen (Aarhaus University) and Jesús Fernández-Villaverde (University of Pennsylvania).
- 4) "Precautionary Saving and Aggregate Demand" forthcoming *Quantitative Economics* with Edouard Challe (CNRS, Ecole Polytechnique, CREST and Banque de France), Julien Matheron (Banque de France), and Xavier Ragot (CNRS and Paris School of Economics).

- 5) "Perturbation Methods for Markov-Switching DSGE Models" (2016) **Quantitative Economics**, 7, pp. 637-669, with Andrew Foerster (Federal Reserve Bank of Kansas City), Daniel F. Waggoner (Federal Reserve Bank of Atlanta) and Tao Zha (Federal Reserve Bank of Atlanta and Emory University).
- 6) "Fiscal Volatility Shocks and Economic Activity" (2015) *American Economic Review*, 105, pp. 3352-3384, with Jesús Fernández-Villaverde (University of Pennsylvania), Pablo Guerrón-Quintana (Federal Reserve Bank of Philadelphia), and Keith Kuester (Federal Reserve Bank of Philadelphia).
- 7) "Nonlinear Adventures at the Zero Lower Bound" (2015) *Journal of Economic Dynamics and Control*, 57, pp. 182–204 with Grey Gordon (Indiana University), Jesús Fernández-Villaverde (University of Pennsylvania), and Pablo Guerrón-Quintana (Federal Reserve Bank of Philadelphia).
- 8) "Can International Macroeconomic Models Explain Low-Frequency Movements of Real Exchange Rates?" (2015) *Journal of International Economics*, 96, pp. 199–211 with Pau Rabanal (IMF).
- 9) "Estimating Dynamic Equilibrium Models with Stochastic Volatility" (2015) **Journal** of **Econometrics**, 185, pp. 216–229 with Jesús Fernández-Villaverde (University of Pennsylvania) and Pablo Guerrón-Quintana (Federal Reserve Bank of Philadelphia).
- 10) "Supply-Side Policies and the Zero Lower Bound" (2014) IMF Economic Review, 62, pp. 248-260 with Pablo Guerrón-Quintana (Federal Reserve Bank of Philadelphia) and Jesús Fernández-Villaverde (University of Pennsylvania).
- 11) "The Term Structure of Interest Rates in a DSGE Model with Recursive Preferences" (2012) *Journal of Monetary Economics*, 59, pp. 634-648 with Jules H. van Binsbergen (Stanford University), Jesús Fernández-Villaverde (University of Pennsylvania), and Ralph S.J. Koijen (University of Chicago).
- 12) "Computing DSGE Models with Recursive Preferences" (2012) *Review of Economic Dynamics*, 15, pp. 188-206 with Dario Caldara (IIES), Jesús Fernández-Villaverde (University of Pennsylvania), and Yao Wen (University of Pennsylvania).
- 13) "Cointegrated TFP Processes and International Business Cycles" (2011) *Journal of Monetary Economics*, 58, pp. 156-171 with Pau Rabanal (IMF) and Vicente Tuesta (Centrum Catolica and Prima AFP).
- 14) "Risk Matters: The Real Effects of Volatility Shocks" (2011) American Economic Review, 101, pp. 2530-2561 with Jesus Fernandez-Villaverde (University of Pennsylvania), Pablo Guerrón-Quintana (Federal Reserve Bank of Philadelphia), and Martín Uribe (Columbia University).
- 15) "Tapping the Supercomputer under Your Desk: Solving Dynamic Equilibrium Models with Graphics Processors" (2011) *Journal of Economic Dynamics and Control*, 35, pp. 386-393 with Eric M. Aldrich (Duke University), Jesus Fernández-Villaverde (University of Pennsylvania), and A. Ron Gallant (Duke University and New York University).
- 16) "Investment-Specific Technology Shocks and International Business Cycles: An Empirical Assessment" (2011) *Review of Economic Dynamics*, 14, pp. 136-155 with Federico Mandelman (Federal Reserve Bank of Atlanta), Pau Rabanal (IMF), and Diego Vilán (University of Southern California.
- 17) "Structural Vector Autoregressions: Theory of Identification and Algorithms for Inference" (2010) *Review of Economic Studies*, 77, pp. 665-696 with Daniel F. Waggoner (Federal Reserve Bank of Atlanta) and Tao Zha (Federal Reserve Bank of Atlanta and Emory University).

- 18) "Medea: A DSGE Model for the Spanish Economy" (2010) **SERIES**, 1, pp. 175 243 with Pablo Burriel (Banco de España) and Jesús Fernández-Villaverde (University of Pennsylvania).
- 19) "Comparing New Keynesian Models in the Euro Area: A Bayesian Approach" (2008) with Pau Rabanal (IMF), **Spanish Economic Review**, 10, pp. 23-40.
- 20) "Estimating Macroeconomic Models: A Likelihood Approach" (2007) *Review of Economic Studies*, 74, pp. 1059-1087 with Jesús Fernández-Villaverde (University of Pennsylvania).
- 21) "A, B, C's (and D)'s for Understanding VARs" (2007) *American Economic Review*, 97, pp. 1021-1026, with Jesús Fernández-Villaverde (University of Pennsylvania), Thomas Sargent (NYU and Hoover Institution), and Mark Watson (Princeton University).
- 22) "On the Solution of the Growth Model with Investment-Specific Technological Change" (2007) *Applied Economic Letters*, 14, 549-554, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 23) "Comparing Solution Methods for Dynamic Equilibrim Economies" (2006) **Journal of Economic Dynamics and Control**, 30, pp. 2447-2508, with S. Boragan Aruoba (University of Maryland) and Jesús Fernández-Villaverde (University of Pennsylvania)
- 24) "Solving DSGE Models with Perturbation Methods and a Change of Variables" (2006) Journal of Economic Dynamics and Control, 30, pp. 2509–2531, with Jesús Fernández-Villaverde (University of Pennsylvania)
- 25) "Convergence Properties of the Likelihood of Computed Dynamic Models" (2006) *Econometrica*, 74, pp 93-119, with Jesús Fernández-Villaverde (University of Pennsylvania) and Manuel Santos (University of Miami).
- 26) "Comparing New Keynesian Models of the Business Cycle: A Bayesian Approach" (2005) *Journal of Monetary Economics*, 52, pp. 1151-1166, with Pau Rabanal (IMF).
- 27) "Estimating Dynamic Equilibrium Economies: Linear versus Nonlinear Likelihood" (2005) *Journal of Applied Econometrics*, 20, pp. 891-910, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 28) "Comparing Dynamic Equilibrium Economies to Data: A Bayesian Approach" (2004) Journal of Econometrics, 123, pp. 153-187, with Jesús Fernández-Villaverde (University of Pennsylvania).

# Working Papers

- 1) "The Systematic Component of Monetary Policy in SVARs: An Agnostic Identification Procedure" with Jonas E. Arias (Federal Reserve Board) and Dario Caldara (Federal Reserve Board) Revise and Resubmit to *Journal of Monetary Economics*.
- 2) "Inference in Bayesian SVARs Identified with External Instruments" with Jonas E. Arias (Federal Reserve Board) and Daniel F. Waggoner (Federal Reserve Bank of Atlanta).
- 3) "Structural Scenario Analysis with SVARs" with Juan Antolín-Díaz (Fulcrum Asset Management) and Ivan Petrella (University of Warwick).

#### Other Publications

1) "Macroeconomics and Volatility: Data, Models, and Estimation" (2013) Advances in Economics and Econometrics: Theory and Applications, Tenth World Congress of the

- Econometric Society, Cambridge University Press, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 2) "Reading the recent monetary history of the United States, 1959-2007," (2010) Review, Federal Reserve Bank of St. Louis, issue May, pp. 311-338 with Jesús Fernández-Villaverde (University of Pennsylvania) and Pablo Guerrón (Federal Reserve Bank of Philadelphia).
- 3) "Two Books on the New Macroeconometrics" (2009) Econometric Reviews, 28, pp. 376 387, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 4) "The New Macroeconometrics" (2009) Handbook of Applied Bayesian Analysis, Oxford University Press with Pablo Guerrón (Federal Reserve Bank of Philadelphia) and Jesús Fernández-Villaverde (University of Pennsylvania).
- 5) "How Structural are Structural Parameter Values?" (2008) 2007 NBER Macroeconomics Annual, 22, pp. 83-132, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 6) "The Research Agenda: Jesús Fernández-Villaverde and Juan F. Rubio-Ramírez on Estimation of DSGE Models", (2006) Economic Dynamics Newsletter, Volume 8, Issue 1, November 2006 with Jesús Fernández-Villaverde (University of Pennsylvania).
- 7) "Economic and VAR Shocks: What Can Go Wrong?" (2006) Journal of the European Economic Association Paper and Proceedings, 4, pp. 466-474, with Jesús Fernández-Villaverde (University of Pennsylvania).
- 8) "Structural Vector Autoregressions", The New Palgrave Dictionary of Economics with Jesús Fernández-Villaverde (University of Pennsylvania).
- 9) "Smoothing the Shocks of a Dynamic Stochastic General Equilibrium Model" (2005) Economic Review, 90, pp. 35-47, with Andrey Bauer (Federal Reserve Bank of Atlanta) and Nicholas Haltom (Federal Reserve Bank of Atlanta).
- 10) "Inflation Persistence: How Much Can We Explain?" (2003) Economic Review, 88, pp. 43-55, with Pau Rabanal (IMF).

#### Editorial Work

- 1) Associate Editor, Quantitative Economics.
- 2) Associate Editor, Journal of Econometrics.
- 3) Associate Editor, Review of Economic Dynamics.
- 4) Program committee of 2011 Society for Economic Dynamics Meetings.
- 5) Program committee of 2010 Society for Economic Dynamics Meetings.
- 6) Program committee of 2009 Society for Economic Dynamics Meetings.
- 7) Program committee of 2007 North American Summer Meeting of the Econometric Society.