Frank Schorfheide

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ACADEMIC APPOINTMENTS

- Professor of Economics, University of Pennsylvania, since July 1, 2008
- Associate Professor of Economics, University of Pennsylvania, 2004-2008.
- Visiting Associate Professor, New York University, Fall 2004
- Assistant Professor of Economics, University of Pennsylvania, 1998-2004.

SHORT-TERM VISITING APPOINTMENTS

- Columbia University, September 2005
- University of Chicago, March 2005
- New York University, Fall 2004

AFFILIATIONS

- Centre for Economic Policy Research (CEPR), Research Fellow since August 2005
- National Bureau of Economic Research (NBER), Faculty Research Fellow since April 2006; Co-Founder / Co-Leader NBER work group on “Empirical Methods and Applications for DSGE Models” (this group is part of the Economic Fluctuations and Growth research program)

EDUCATION

- Yale University, Ph.D., Economics, May 1998
- Technical University of Darmstadt, Dual Master’s Degree in Economics and Electrical Engineering, August 1994
- University of Illinois, Non-degree exchange student, August 1992 – May 1993

FELLOWSHIPS AND HONORS

- National Science Foundation Grant: “Generalized Bayesian Estimation, Forecasting, and Policy Analysis in DSGE Macroeconomic Models” with Francis X. Diebold, 2006-2009
- Alfred P. Sloan Research Fellowship, 2004-2008
- University Research Foundation Award: Econometric Evaluation of Monetary Policy Rules with DSGE Models of Open Economies, 2001-2002
- University Research Foundation Award: Evaluating Asset Pricing Implications of DSGE Models, 1999-2000
- Alfred P. Sloan Dissertation Fellowship, 1996-97
- German Academic Exchange Service Dissertation Fellowship, 1994-97
- Yale University Fellowship, 1994-96 and 1997-98

PUBLICATIONS AND RESEARCH

Working Papers

- "Bayesian and Frequentist Inference in Partially Identified Models," joint with Hyungsik Roger Moon (USC), NBER Working Paper 14882.
- "DSGE Model-Based Forecasting of Non-Modelled Variables," joint with Keith Sill (FRB Philadelphia), NBER Working Paper 14872.
- "Sticky Prices versus Monetary Frictions: An Estimation of Policy Trade-offs," joint with Boragan Aruoba (Maryland), NBER Working Paper 19870.
- "Methods versus Substance: Measuring the Effects of Technology Shocks," joint with Jose Victor Rios Rull (Minnesota), Cristina Fuentes-Albero, Raul Santaeulalia-Llopis, and Maxym Kryhko (Penn).
- "Inference with Overidentifying Inequality Moment Conditions," with Hyungsik Roger Moon (USC).

Refereed Publications

- "Monetary Policy with Potentially Misspecified Models," joint with Marco Del Negro (FRB New York), *American Economic Review*, forthcoming.
- "Forming Priors for DSGE Models (And How it Affects the Assessment of Nominal Rigidities)," joint with Marco Del Negro (FRB New York), *Journal of Monetary Economics*, 55(7), 1191-1208.
- "Nonstationary Hours in a DSGE Model," joint with Yongsung Chang (Seoul National University) and Taeyong Doh (FRB Kansas City), *Journal of Money, Credit, and Banking,* 39(6), 2007, 1357-1373.
- "Bayesian Analysis of DSGE Models," joint with Sungbae An (Singapore Management University), *Econometric Reviews*, with discussions by F. Canova, J. Geweke, D. Poirier, M. Villani, T. Zha, and rejoinder, 26(2-4), 2007, 113-172.
- "Do Central Banks Respond to Exchange Rates – A Structural Investigation," with Thomas Lubik (FRB Richmond), *Journal of Monetary Economics*, 54(4), 2007, 1069-1087.
- "On the Fit of New Keynesian Models," joint with Marco Del Negro (FRB New York), Frank Smets (ECB), and Raf Wouters (National Bank of Banks), *Journal of Business & Economic Statistics*, invited JBES lecture with discussions by L. Christiano, R. Gallant, C. Sims, J. Faust, L. Kilian, and rejoinder, 25(2), 2007, 143-162.
- "Learning and Monetary Policy Shifts," *Review of Economic Dynamics*, 8(2), 2005, 392-419.
- "VAR Forecasting under Misspecification," *Journal of Econometrics*, 128, 2005, 99-136.
- "Testing for Indeterminacy: An Application to U.S. Monetary Policy," with Thomas Lubik (FRB Richmond), *American Economic Review*, 94(1), 2004, 190-217.
- "Priors from General Equilibrium Models for VARs," with Marco Del Negro (FRB New York), *International Economic Review*, 45(2), 2004, 643-673.
- "Labor Supply Shifts and Economic Fluctuations," with Yongsung Chang (FRB Richmond), *Journal of Monetary Economics*, 50(8), 2003, 1751-1768.
- "Computing Sunspot Equilibria in Linear Rational Expectations Model," with Thomas Lubik (FRB Richmond)," *Journal of Economic Dynamics and Control*, 28(2), 2003, 273-285.
- "Minimum Distance Estimation of Non-stationary Time Series Models," with Hyungsik Roger Moon (USC), *Econometric Theory,* 18(6), 2002, 1385-1407.

- "Learning-by-Doing as Propagation Mechanism," with Yongsung Chang (FRB Richmond) and Joao Gomes (UPenn), *American Economic Review*, 92(5), 2002, 1498-1520 .

Refereed Publications (continued)

- "Loss Function Based Evaluation of DSGE Models," *Journal of Applied Econometrics*, 15(6), 2000, 645-670.
- "Quantile Spline Models for Global Temperature Change," with Roger Koenker (University of Illinois), Climatic Change, 28, 1994, 395-404.

PUBLICATIONS AND RESEARCH (CONTINUED)

Other Publications:

- "DSGE Model-Based Estimation of the New Keynesian Phillips Curve," Economic Quarterly of the Federal Reserve Bank of Richmond, Fall 2008, 397-433
- "Inflation Dynamics in a Small Open Economy Model under Inflation Targeting: Some Evidence from Chile," joint with Marco Del Negro (FRB New York), Conference Volume, Central Bank of Chile, forthcoming.
- "Monetary Policy under Uncertainty in an Estimated Model with Labor Market Frictions" Comments on a paper by Luca Sala, Ulf Soderstrom, and Antonella Trigari. *Journal of Monetary Economics*, *Carnegie-Rochester Conference Series*, 55(5), 2008, 1007-1010.
- "How Structural are Structural Parameters?" Discussion of a Paper by Jesus Fernandez-Villaverde and Juan Rubio-Ramirez, *2007 NBER Macroeconomics Annual*, 2008, 139-163, MIT Press.
- "Bayesian Methods in Macroeconometrics," in S.N. Durlauf and L.E. Blume (eds), *The New Palgrave Dictionary of Economics*, 2008, Palgrave Macmillan.
- "Testing for Indeterminacy: A Reply," joint with Thomas Lubik (FRB Richmond), *American Economic Review*, 97(1), 2007, 530-533.
- "How Good is What You've Got? DSGE-VAR as a Toolkit for Evaluating DSGE Models," joint with Marco Del Negro (FRB New York), *FRB Atlanta Economic Review*, 91(2), 2006.
- "A Bayesian Look at New Open Economy Macroeconomics," joint with Thomas Lubik (FRB Richmond), *2005 NBER Macroeconomics Annual*, 2006, MIT Press.
- "Econometric Methods in Macroeconomics and Finance," joint with Francis X. Diebold, Robert Engle, Carlo Favero, and Giampiero Gallo. Guest Editors' introduction to a special issue of the *Journal of Econometrics*, 131(1-2), 2006, 1-2.
- "Policy Predictions if the Model Doesn't Fit," joint with Marco Del Negro (FRB New York), *Journal of the European Economic Association*, 3(2-3), 2005, 434-443.
- "Take Your Model Bowling: Forecasting with General Equilibrium Models," joint with Marco Del Negro (FRB New York), *FRB Atlanta Economic Review*, 2003(4).
- "Loss Function Estimation of Forecasting Models: A Bayesian Perspective," *American Statistical Association, 1999 Proceedings of the Section on Bayesian Statistics*, 1999.
- "Econometric Modeling of Macroeconomic Aggregates," *Ph.D. Dissertation*, Yale University, Graduate School of Arts and Sciences, May 1998.
- "Economic Impact of Cuts in Defense Spending," ACDIS Occasional Papers, April 1993, University of Illinois, Urbana and Champaign.

Book Reviews:

- "Financial Econometrics" by Christian Gourieroux and Joann Jasiak, Princeton University Press, *Econometric Theory*, 19(2), 2003, 401-409.
- "Forecasting Economic Time Series" by Michael Clements and David Hendry, Cambridge University Press, *Econometric Theory*, 16(3), 2000, 441-450.

RESEARCH COLLABORATORS:

- Sungbae An (Singapore National University)
- Boragan Aruoba (University of Maryland)
- Yongsung Chang (University of Rochester)
- Marco Del Negro (FRB New York)
- Taeyoung Doh (FRB Kansas City)
- Francis X. Diebold (University of Pennsylvania)
- Cristina Fuentes-Albero (University of Pennsylvania, Graduate Student)
- Maxym Kryhko (University of Pennsylvania, Graduate Student)
- Thomas Lubik (FRB Richmond)
- Hyungsik Roger Moon (University of Southern California)
- Jose Victor Rios-Rull (University of Minnesota)
- Raul Santaeulalia-Llopis (Washington University St. Louis)
- Keith Sill (Federal Reserve Bank of Philadelphia)
- Frank Smets (European Central Bank)
- Rafael Wouters (National Bank of Belgium)

PROFESSIONAL ACTIVITIES AND AFFILIATIONS

Editorships

- Editorial Board Member: American Economic Review; International Economic Review
- Associate Editor: Journal of Econometrics, Journal of Monetary Economics
- Co-editor of a special issue of Journal of Econometrics on Econometric Methods in Finance and Macroeconomics

Consulting, Visiting Scholar

- Deutsche Bundesbank: June 2003
- European Central Bank: April 2002, August 2003, December 2004, June 2005, December 2005, September 2007, December 2007, April 2008
- Federal Reserve Board of Governors: July 2003
- Federal Reserve Bank of Atlanta: November 2001, June 2002, August 2003, May 2005
- Federal Reserve Bank of Philadelphia: since August 2003
- Federal Reserve Bank of New York: since Fall 2007
- International Monetary Fund: 2003, 2004

Referee Activities

American Economic Review, Annals of the Institute of Statistical Mathematics, Econometrica, Econometric Theory, International Economic Review, Journal of Applied Econometrics, Journal of Business Economics and Statistics, Journal of Econometrics, Journal of Economic Dynamics and Control, Journal of Money Credit and Banking, Journal of Statistical Planning and Inference, National Science Foundation, SIAM Review.

Memberships

American Economic Association, Econometric Society, Int.Society for Bayesian Analysis.

Conference Co-Organizer

- 2008 Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models
- 2008 European Economic Association Meetings
- 2008 NBER Summer Institute, Meeting of the work group on “Empirical Methods and Applications for DSGE Models”
- 2007 Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models
- 2007 NBER Summer Institute, Meeting of the work group on “Empirical Methods and Applications for DSGE Models”
- 2007 European Economic Association Meetings
- 2007 North American Econometric Society Meetings
- 2006 Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models
- 2005 Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models
- 2004 Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models
- 2002 IGIER-PIER Conference on Econometric Methods in Macroeconomics and Finance

PROFESSIONAL ACTIVITIES AND AFFILIATIONS (CONTINUED)

Seminars and Conference Presentations

- 2009: Texas A&M University, Duke University, University of Pittsburgh, UC Riverside Conference on Business Cycles
- 2008: NBER-EFG Meetings (February), UC Berkeley, UCL-Northwestern Econometrics Conference on Partial Identification, New York University, FRB Kansas City, Texas Monetary Conference, FRB Philadelphia, 4th Annual DYNARE Conference at FRB Boston, Conference on Alternative Models for Monetary Policy organized by Swiss National Bank, Boston College, Johns Hopkins University, Cornell University, Board of Governors, Princeton University.
- 2007: NBER Macroeconomics Annual Conference, New York University, Northwestern University, FRB Richmond Conference on Regime Switches and Structural Change in the Macroeconomy, North American Summer Meetings of the Econometric Society (Invited Speaker), USC, Pompeo Fabra Conference on How Much Structure in Macro Models, CEMFI, Johns Hopkins, Carnegie-Rochester Conference
- 2006: London School of Economics, Bank of England, Nuffield College, University of Southern California, Brown University, SBIES Conference in Iowa, Australasian Econometric Society Meetings, American Statistical Association Meetings (Invited JBES Lecture), UT Austin, New York Area Money/Macro Conference, FRB San Francisco, UC Davis, CIREQ Time Series Conference in Montreal, EC2 Meetings in Rotterdam (invited speaker)
- 2005: University of Chicago, Conference in Honor of Chris Sims (Barcelona), NBER Macroannual Conference, FRB Atlanta, FRB Kansas City, Board of Governors, NBER Summer Institute, Duke University, Columbia University, Columbia University Conference on Quantitative Evaluation of Stabilization Policies, Cleveland Fed Conference on Empirical Methods and Applications for DSGE Models, Princeton University, Chicago Fed Conference on Price Stability
- 2004: FRB San Francisco Conference on Interest Rates and Monetary Policy (invited discussion), ASSA Meetings (San Diego), University of Montreal, FRB Richmond, NBER Summer Institute, EEA Meetings (Madrid), FRB Cleveland Conference on DSGE Models, ECB Conference on Monetary Policy and Uncertainty (Wuerzburg), New York University, Columbia University, Yale University, Stanford University, ECB
- 2003: Bank of England, University of Illinois, Rutgers University, New York University, FRB Philadelphia, FRB New York, Arizona State University, Penn State University, Bank of Canada Conference on Models for Monetary Policy (invited discussion), Sveriges Riksbank Conference on Small Structural Models for Monetary Policy, ECB/IMOP Workshop on Dynamic Macroeconomics, IMF, Lehigh University, Indiana University, FRB Atlanta Conference on Learning, FRB St. Louis, Bank of Canada, University of Kiel, ASSA Meetings (Washington, D.C.)
- 2002: UC Los Angeles, UC San Diego, Brown University, University of Maryland, Canadian Econometrics Study Group, University of Mannheim, European Econometric Society Meetings (Venice), CIRANO Conference on Forecasting (Montreal), ECB
- 2001: Humboldt University, FRB Atlanta, Boston College, European Econometric Society Meetings (Lausanne), Board of Governors of the Federal Reserve System, Econometrics Society Summer Meetings (Maryland), University of Illinois, University of Southern

California, ISBA Regional Meeting (Laguna Beach), Midwest Macro Conference (Atlanta), Arizona State University, FRB Atlanta, ASSA Meetings (New Orleans)
- 2000: Princeton University, Econometrics Society World Congress (Seattle), NBER Summer Institute (Boston), University of Virginia, UC Irvine

<u>Seminars and Conference Presentations (continued)</u>

- 1999: Cowles Foundation Time Series Conference (invited discussion), Rutgers University, University of Maryland, European Econometric Society Meetings (Santiago de Compostela), Joint Statistical Meetings (Baltimore)
- 1998: University of Toronto, Arizona State University, Johns Hopkins University, Cambridge University, Nuffield College, University of Pennsylvania

TEACHING ACTIVITIES

Courses Taught (by Subject)

- Undergraduate Econometrics (Economics 220)
- Undergraduate Topics in Econometrics: Forecasting (Economics 221)
- Honors Thesis Course (Economics 300)
- Graduate Econometrics II: Time Series (Economics 706)
- Graduate Econometrics IV: Advanced Time Series (Economics 722)

Courses Taught (by Year)

- AY 2008/09: Fall semester: Economics 220, Economics 300; Spring semester: Economics 722, Economics 300
- AY 2007/08: Fall semester: Economics 300; Spring semester Economics 706, Economics 722, Economics 300
- AY 2006/07: Fall semester: Economics 300; Spring semester Economics 220, Economics 722, Economics 300
- AY 2005/06: Fall semester: Economics 300; Spring semester Economics 706

Dissertation Committee, Chair

- Taeyoung Doh (2007); first appointment: FRB Kansas City; current appointment: FRB Kansas City.
- Sungbae An, (2006); first appointment: Singapore Management University; current appointment: Singapore Management University.
- Current students: Cristina Funentes-Albero, Maxym Kryshko, Leonardo Melosi

Dissertation Committee, Member

Marco Airaudo, Boragan Aruoba, Doron Avramov, Sean Campbell, Lei Ji, Paul Labys, Bill Lu, Canlin Li, Andrea Mattozzi, Yasutomo Murasawa, Ryo Okui, Lubos Pastor, Yaye Sakho, John Schindler, Chiara Scotti, Clara Vega, Ginger Wu, Felipe Zanna.

SERVICE ACTIVITIES

Department of Economics

- Member of Departmental Personnel Committee since Fall 2008
- Member of Graduate Examination Committee, since 1998
- Honors Thesis Committee Chair, since 2005
- Junior Recruiting Committee Co-Chair, since 2005
- Co-organizer of departmental econometrics workshop since Fall 1998.
- Graduate Admissions and Fellowships Committee, 1998-2002.
- Organized Econometrics Lunch for faculty and graduate students, Spring and Fall 2000.
- Faculty Advisor for undergraduate students majoring in economics, 1999-2000.

School of Arts and Sciences

- Member of SAS Personnel Committee since Fall 2008
- Member of the Humanities and Social Science Panel (School of Arts and Sciences), 2005-2008
- Member of the Curriculum Committee (School of Arts and Sciences), 2003-2004
- Freshmen Advisor, Fall 1999 and Spring 2000.