

## JAMES BULLARD

June 22, 2009

### PRINCIPAL CURRENT POSITION

President and Chief Executive Officer, Federal Reserve Bank of St. Louis.

- Appointment as of April 2008.
- Member, Federal Open Market Committee, primary policy arm of the Federal Reserve.
- 8th FR District includes branch offices in Memphis, Little Rock, and Louisville.
- About 1,000 employees, 2007 annual operating expenses \$252m.

### PREVIOUS POSITION

Vice-President and Research Economist.

Deputy Director of Research for Monetary Analysis.

Research Department, Federal Reserve Bank of St. Louis.

- Economist at the Bank since 1990.
- Policy adviser, FOMC Class I, FOMC briefing coordinator.
- Macroeconomics section chief: Eight PhD research economists in section.

### CONCURRENT TEACHING POSITIONS

Washington University in St. Louis, Department of Economics.

- Macroeconomics, PhD core level, Spring 2006, 2005, 2004, 2003.
- Macroeconomic theory, PhD field level, Fall 2007, Spring 2007, 2000, and 1994.
- Intermediate macroeconomics, Fall 2005, 2002, Spring 2001, 1998 (Olin School).

University of Missouri, St. Louis, Department of Economics.

- Worldwide growth and development, graduate level, Summer 2003.
- Topics in money and banking, graduate level, Summer 2000, 1997, 1994.

Southern Illinois University, Edwardsville, Department of Economics.

- Topics in monetary and fiscal policy, graduate level, Fall 2002, 1999, 1992.

### EDITING POSITION

Co-editor, Journal of Economic Dynamics and Control, 2007-present.

### VISITING POSITIONS

Visitor, Bank of England, Monetary Assessment and Analysis Division, April-July 1996.  
London, United Kingdom.

Visitor, Santa Fe Institute, November 1995.  
Santa Fe, New Mexico, USA.

#### EDUCATION

Ph.D., Economics, Indiana University, Bloomington, Indiana, 1990.

Bachelor of Science, Quantitative Methods and Information Systems, and Economics,  
St. Cloud State University, St. Cloud, Minnesota, 1984.

#### CITIZENSHIP

United States of America.

#### PUBLICATIONS IN JOURNALS

Worldwide macroeconomic stability and monetary policy rules. *Journal of Monetary Economics*, forthcoming. (With A. Singh).

Monetary policy, judgement, and near-rational exuberance. *American Economic Review*, forthcoming. (With G. Evans and S. Honkapohja).

A two-headed dragon for monetary policy. *National Association for Business Economics, Business Economics*, 2009, 44(2): 73-79.

A leisurely reading of the life-cycle consumption data. *Journal of Monetary Economics*, 2007, 54(8): 2305-2320. (With J. Feigenbaum).

Comment on Orphanides and Williams' "Robust Monetary Policy." *Journal of Monetary Economics*, 2007, 54(5): 1436-1440.

Determinacy, learnability, and monetary policy inertia. *Journal of Money, Credit, and Banking*, 2007, 39(5): 1177-1212. (With K. Mitra).

Escapist policy rules. *Journal of Economic Dynamics and Control*, 2005, 29(11): 1841-1865. (With I-K. Cho).

Did the great inflation occur despite policymaker commitment to a Taylor rule? *Review of Economic Dynamics*, 2005, 8(2): 324-359. (With S. Eusepi).

Trend-reverting fluctuations and the life-cycle model. *Journal of Economic Theory*, 2004, 119: 334-356. (With C. Azariadis and L. Ohanian).

- Central bank design in general equilibrium. *Journal of Money, Credit, and Banking*, 2004, 36: 95-114. (With C. Waller).
- Intermediaries and payments instruments. *Journal of Economic Theory*, 2003, 109: 172-197. (With B.D. Smith).
- The value of inside and outside money. *Journal of Monetary Economics*, 2003, 50: 389-417. (With B.D. Smith).
- Learning about monetary policy rules. *Journal of Monetary Economics*, 2002, 49: 1105-1129. (With K. Mitra).
- Public and private circulating liabilities. *Journal of Economic Theory*, 2001, 99: 59-116. (With C. Azariadis and B.D. Smith).
- Learning and excess volatility. *Macroeconomic Dynamics*, 2001, 5: 272-302. (With J. Duffy).
- An empirically plausible model of low real interest rates and unbacked government debt. *Journal of Monetary Economics*, 1999, 44: 477-508. (With S. Russell).
- Using genetic algorithms to model the evolution of heterogeneous beliefs. *Computational Economics*, 1999, 13: 41-60. (With J. Duffy).
- On learning and the stability of cycles. *Macroeconomic Dynamics*, 1998, 2: 22-48. (With J. Duffy).
- A model of learning and emulation with artificial adaptive agents. *Journal of Economic Dynamics and Control*, 1998, 22: 179-207. (With J. Duffy).
- The transition from stagnation to growth: an adaptive learning approach. *Journal of Economic Growth*, 1997, 2: 185-209. (With J. Arifovic and J. Duffy).
- The long-run relationship between inflation and output in postwar economies. *Journal of Monetary Economics*, 1995, 36: 477-496. (With J. Keating).
- Learning equilibria. *Journal of Economic Theory*, 1994, 64: 468-485.
- Nonlinearity and chaos in economic models: implications for policy decisions. *Economic Journal*, 1993, 103: 849-865. (With A. Butler).
- Time-varying parameters and nonconvergence to RE under least squares learning. *Economics Letters*, 1992, 40: 159-166.

## PUBLICATIONS IN VOLUMES

- Comment on 'Inflation and Welfare in Models with Trading Frictions,' by G. Roucheteau and R. Wright. In D. Altig and E. Nosal, eds., *Monetary Policy in Low Inflation Economies*, Cambridge University Press, forthcoming.

Comment on ‘Laboratory experiments with an expectational Phillips curve,’ by J. Arifovic and T.J. Sargent. In D.E. Altig and B.D. Smith, eds., *Evolution and Procedures in Central Banking*, Cambridge University Press, 2003.

Learning. In D. Glasner, ed., *Business Cycles and Depressions*, Garland Publishing, 1997.

Rethinking rational expectations. In G. von Furstenberg, ed., *Acting Under Uncertainty*. Kluwer Academic, 1990.

#### PUBLICATIONS IN THE FRB-ST. LOUIS REVIEW

Monetary policy as equilibrium selection. *FRB-St. Louis Review*, 2007, July/August, 89(4), pp. 331-341. (With G. Antinolfi and C. Azariadis).

The learnability criterion and monetary policy. *FRB-St. Louis Review*, 2006, 88(3), pp. 203-217.

How costly is sustained low inflation for the U.S. economy? *FRB-St. Louis Review*, 2004, 86(3), May/June. (With S. Russell).

Why the Fed should ignore the stock market. *FRB-St. Louis Review*, 2002, 84(2), March/April. (With E. Schaling).

New economy—new policy rules? *FRB-St. Louis Review*, 2001, 83(5), September/October. (With E. Schaling).

Testing long-run neutrality propositions: Lessons from the recent research. *FRB-St. Louis Review*, 1999, 81(6), November/December.

What has become of the stability through inflation argument? *FRB-St. Louis Review*, 1998, 80(1), January/February. (With A. Marty).

Price stability and economic growth: Editor’s introduction. *FRB-St. Louis Review 20th Annual Conference Volume*, 1996.

U.S. official forecasts of G-7 economies, 1976-90. *FRB-St. Louis Review*, 1995, 77(2), March/April. (With M. Ulan and W. Dewald).

Measures of money and the quantity theory. *FRB-St. Louis Review*, 1994, 76(1), January/February.

Samuelson’s model of money with n-period lifetimes. *FRB-St. Louis Review*, 1992, 74(3), May/June.

The FOMC in 1991: an elusive recovery. *FRB-St. Louis Review*, 1992, 74(2), March/April.

The FOMC in 1990: onset of recession. *FRB-St. Louis Review*, 1991, 73(3), May/June.

Learning, rational expectations and policy: a summary of recent research. FRB-St. Louis Review, 1991, 73(1), January/February.

#### EDITED VOLUMES

Proceedings of the Tenth International Conference on Computing in Economics and Finance, Special Issue of the Journal of Economic Dynamics and Control, forthcoming. (Edited with Cees Diks and Florian Wagener).

New Approaches to Learning in Macroeconomics. Special issue of Macroeconomic Dynamics, 2001. (Edited with J. Arifovic). With contributions by B. LeBaron; C. Hommes and J.B. Rosser, Jr.; J. Arifovic; G. Bischi and R. Marimon; J. Bullard and J. Duffy; T. Allen and C. Carroll; and B. Routledge.

Price Stability and Economic Growth, FRB-St. Louis Review 20th Annual Conference Volume, 1996. With contributions by B. Smith, J. Boyd, and S. Choi; P. Labadie; S. Chatterjee; V.V. Chari, R. Manuelli, and L. Jones; G. Hansen; A. Stockman; R. Wright and A. Trejos; N. Wallace; J. Ritter; C. Azariadis and V. Galasso; R. Becker; R. Cooper; R. King and A. Wolman; E. Prescott; J. Rotemberg; M. Bruno and W. Easterly; J. Faust; K. West; R. Barro; N. Kocherlakota; C. Sims.

#### CURRENT WORKING PAPERS AND MANUSCRIPTS

Learning and the great moderation. (With A. Singh).

The optimal inflation target in an economy with limited enforcement. (With G. Antinolfi and C. Azariadis).

Stability theorems for macroeconomic systems with Bayesian learners. (With J. Suda).

When does determinacy imply E-stability? (With S. Eusepi).

Social learning and monetary policy rules. (With J. Arifovic and O. Kostyshyna).

Monetary policy, determinacy, and learnability in the open economy. (With E. Schaling).

Endogenous skill acquisition and Mirleesian taxation. (With Y. Zhang).

A model of near-rational exuberance. Working paper. (With G. Evans and S. Honkapohja).

Learning and structural change in macroeconomic data. Manuscript. (With J. Duffy).

#### CONFERENCES ORGANIZED

“Learning Week,” Summer 2008, co-organized with Massimo Guidolin, George Evans and Seppo Honkapohja.

Conference on “Money, Credit, and Banking,” sponsored by the Research Department, Federal Reserve Bank of St. Louis, and the Center for Dynamic Economics, Department of Economics, Washington University, co-organized with Steve Williamson.

“Monetary Policy Under Uncertainty,” the 32nd Annual FRB-St. Louis Economic Policy Conference, October 2007, co-organized with Edward Nelson and Daniel Thornton.

“Learning Week,” Summer 2007, co-organized with George Evans and Seppo Honkapohja.

“Learning Week,” Summer 2006, co-organized with George Evans and Seppo Honkapohja.

Midwest Macroeconomics, Spring 2006 meetings, organizing committee.

Midwest Macroeconomics, Spring 1998 meetings.

“Price Stability and Economic Growth,” the 20th Annual FRB-St. Louis Economic Policy Conference, October 1995.

#### SPEECHES

June 2008. “Remarks on the U.S. economic outlook.” Remarks delivered at the University of Arkansas Quarterly Business Analysis Breakfast, Fayetteville, Arkansas.

June 2008. “Remarks on the U.S. economic outlook.” Remarks delivered at the Wisconsin School of Business, Madison, Wisconsin.

June 2008. “Remarks on the U.S. economic outlook.” Remarks delivered at Macroeconomic Advisers Quarterly Outlook Conference, St. Louis, Missouri.

#### SEMINARS AND DISCUSSIONS

June 2008. International Research Forum on Monetary Policy. Sponsored by the European Central Bank, the Federal Reserve Board of Governors, the BMW Center for German and European Studies at Georgetown University, and the Center for Financial Studies at the Johann Wolfgang Goethe-University. Discussed Fabio Milani, “Learning and Time-Varying Macroeconomic Volatility.”

May 2008. Conference on Frontiers in Monetary Theory and Policy. Sponsored by the Bank of Japan. Tokyo, Japan. Discussed George Evans and Seppo Honkapohja, “Robust Learning Stability with Operational Monetary Policy Rules.”

May 2008. Conference on Recognizing and Coping with Macroeconomic Model Uncertainty in Designing Monetary Policy. Sponsored by the Bank of Korea. Seoul, Korea. Presented a Roundtable Discussion on Model Uncertainty.

- March 2008. Workshop on Monetary and Macroeconomics. Sponsored by the Federal Reserve Bank of Philadelphia, the Penn Institute of Economic Research, and the International Economic Review. Discussed Aleksander Berentsen and Cylcil Monnet, "Monetary Policy in a Channel System."
- November 2007. Canadian Macro Studies Group. Ottawa, Canada. Presented "Learning and the Great Moderation."
- October 2007. Workshop on Money and Payments. Sponsored by the Federal Reserve Bank of New York. New York City. Presented "The Optimal Inflation Target in an Economy with Limited Enforcement."
- October 2007. Conference in Honor of John B. Taylor. Sponsored by the Federal Reserve Bank of Dallas. Dallas, Texas. Presented "Worldwide Macroeconomic Stability and Monetary Policy Rules."
- October 2007. Macroeconomics seminar. Federal Reserve Bank of Kansas City. Kansas City, Missouri. Presented "Worldwide Macroeconomic Stability and Monetary Policy Rules."
- September 2007. CEPR/European Summer Institute/South African Reserve Bank Conference on "Global Imbalances, Competitiveness and Emerging Markets." Pretoria, South Africa. Presented "Worldwide Macroeconomic Stability and Monetary Policy Rules."
- September 2007. Monetary economics workshop. Banca d'Italia. Rome, Italy. Presented "The Learnability Criterion and Monetary Policy."
- September 2007. Conference on "Expectations and Monetary Policy." Sponsored by the Swiss National Bank. Zurich, Switzerland. Discussed "Monetary Policy Credibility and the Macroeconomy," by Martin Melecki, Diego Rodriguez Palenzuela, and Ulf Soderstrom.
- August 2007. Monetary Economics Workshop. Sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Presented "The Optimal Inflation Target in an Economy with Limited Enforcement."
- July 2007. Learning Week Workshop. Sponsored by the Federal Reserve Bank of St. Louis. St. Louis, Missouri.
- June 2007. Society for Computational Economics 13th International Conference on Computing in Economics and Finance. Montreal, Canada. Presented "Learning and the Great Moderation."
- May 2007. Workshop on "Optimal Monetary Policy and Central Bank Communication." Sponsored by the Bernoulli Center for Economics and the KOF Swiss Economic Institute. Ascona, Switzerland. Presented "The Optimal Inflation Target in an Economy with Limited Enforcement."
- April 2007. Macroeconomics workshop, Federal Reserve Bank of New York. New York City. Presented "Learning and the Great Moderation."
- March 2007. Macroeconomics workshop, Texas A&M University. College Station, Texas. Presented "Learning and the Great Moderation."

- December 2006. International Research Forum on Monetary Policy. Washington, DC. Jointly sponsored by the European Central Bank, the Center for Financial Studies at Goethe University, the Federal Reserve Board of Governors, and Georgetown University. Discussion of “Bayesian and Adaptive Optimal Policy Under Model Uncertainty,” by Lars Svensson and Noah Williams, unable to present because of weather delays.
- November 2006. Carnegie-Rochester Conference Series on Public Policy. Pittsburgh, Pennsylvania. Discussed “Robust Monetary Policy with Imperfect Knowledge,” by Athanasios Orphanides and John Williams.
- November 2006. Conference on “Monetary Policy, Asset Prices, and Learning.” Sponsored by the European Central Bank. Frankfurt, Germany. Discussed “Learning and Model Validation,” by In-Koo Cho and Kenneth Kasa.
- October 2006. Conference on “Frontiers of Monetary Policy Research.” Sponsored by the Federal Reserve Bank of St. Louis. St. Louis, Missouri. Participated, “Monetary Policy as Equilibrium Selection,” main presentation by Costas Azariadis.
- July 2006. Learning Week Workshop. Sponsored by the Federal Reserve Bank of St. Louis. St. Louis, Missouri.
- April 2006. Conference in Honor of George von Furstenberg. Bloomington, Indiana. Discussed “Dynamic Correlation Analysis of Financial Contagion: Evidence from Asian Markets,” by Thomas C. Chiang, Bang Nam Jeon, and Huimin Li.
- April 2006. Macroeconomics seminar, University of Miami. Miami, Florida. Presented “Worldwide Macroeconomic Stability and Monetary Policy Rules.”
- March 2006. “Economics of Payments II” Conference. Sponsored by the Federal Reserve Bank of New York. Discussed “Optimal Settlement Rules for Payments Systems,” by Benjamin Lester, Stephen Millard, and Matthew Willison.
- December 2005. Macroeconomics seminar, Indiana University. Bloomington, Indiana. Presented “Near-Rational Exuberance.”
- November 2005. Macroeconomics seminar, Southern Methodist University. Dallas, Texas. Presented “Near-Rational Exuberance.”
- November 2005. Macroeconomics seminar, University of Missouri. Columbia, Missouri. Presented “Worldwide Macroeconomic Stability and Monetary Policy Rules.”
- June 2005. Eleventh International Conference on Computing in Economics and Finance. Washington, DC. Presented “Monetary Policy, Determinacy, and Learnability in the Open Economy.”
- May 2005. Third Conference of the International Research Forum on Monetary Policy. Sponsored by the European Central Bank. Frankfurt, Germany. Presented “Monetary Policy, Determinacy, and Learnability in the Open Economy.”
- May 2005. Bank for International Settlements. Basel, Switzerland. Presented “Monetary Policy, Determinacy, and Learnability in the Open Economy.”



- May 2005. Center for European Integration Studies (ZEI), University of Bonn. Bonn, Germany. Presented “Monetary Policy, Determinacy, and Learnability in the Open Economy.”
- May 2005. 36th Konstanz Seminar on Monetary Theory and Monetary Policy. Konstanz, Germany. Discussed “Structural Changes in the U.S. Economy: Bad Luck or Bad Policy?” by Fabio Canova and Luca Gambetti.
- January 2005. American Economic Association, Session on “Near-Rational Expectations and Stability in Macroeconomics.” Philadelphia, Pennsylvania. Participated, “Near-Rational Exuberance” main presentation by S. Honkapohja.
- November 2004. Canadian Macro Studies Group. Montreal, Canada. Presented “Near-Rational Exuberance.”
- October 2004. Conference on “Monetary Policy and Imperfect Knowledge.” Sponsored by the European Central Bank. Würzburg, Germany. Participated, “Near-Rational Exuberance” main presentation by S. Honkapohja.
- July 2004. Meetings of the Society for Economic Dynamics. Florence, Italy. Presented “Near-Rational Exuberance.”
- June 2004. Conference on “Dynamic Macroeconomic Theory.” Sponsored by the Institute of Economics at the University of Copenhagen. Copenhagen, Denmark. Presented “Near-Rational Exuberance.”
- May 2004. Midwest Macroeconomics Conference. Iowa State University, Ames, Iowa. Presented “Near-Rational Exuberance.”
- May 2004. Meeting of the Federal Reserve System Committee on Macroeconomics. Federal Reserve Bank of Cleveland. Cleveland, Ohio. Discussed “Learning and Shifts in Long-Run Productivity Growth,” by Rochelle Edge, Thomas Laubach, and John Williams.
- March 2004. Meetings of the Society for Nonlinear Dynamics and Econometrics. Federal Reserve Bank of Atlanta, Atlanta, Georgia. Presented “Near-Rational Exuberance.”
- January 2004. American Economic Association Meetings. San Diego, California. Discussed “The Decline of Activist Stabilization Policy: Natural Rate Misperceptions, Learning, and Expectations,” by Athanasios Orphanides and John Williams.
- November 2003. Conference on “Low Inflation Economies,” sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Discussed “Inflation and Welfare in Models with Trading Frictions,” by Guillaume Rocheteau and Randall Wright.
- October 2003. Macroeconomics seminar, Texas A&M University. College Station, Texas. Presented “Learning and Structural Change in Macroeconomic Data.”
- October 2003. Conference on “Heterogeneous Information and Modeling of Monetary Policy,” sponsored by the Bank of Finland and the Centre for Economic Policy Research. Helsinki, Finland. Presented a plenary talk, “The Learning Criterion and Monetary Policy.”

- August 2003. Conference on “Expectations, Learning, and Monetary Policy,” sponsored by the Deutsche Bundesbank and the Center for Financial Studies. Frankfurt, Germany. Presented “Escapist Policy Rules.”
- July 2003. Meetings of the Society for Computational Economics. Seattle, Washington. Presented “Did the Great Inflation Occur Despite Policymaker Commitment to a Taylor Rule?” and discussed “Shocking Escapes” by Bruce McGough.
- June 2003. Meetings of the Society for Economic Dynamics. Paris, France. Presented “A Leisurely Reading of the Life-Cycle Consumption Data.”
- May 2003. Banking and Payments Workshop. Federal Reserve Bank of Cleveland. Cleveland, Ohio. Presented “Intermediaries and Payments Instruments.”
- May 2003. Midwest Macroeconomics Conference. Federal Reserve Bank of Chicago, Chicago, Illinois. Presented “A Leisurely Reading of the Life-Cycle Consumption Data.”
- May 2003. Conference in Honor of Karl Shell. Cornell University, Ithaca, New York. Presented “Intermediaries and Payments Instruments.”
- May 2003. Conference on “Recent Developments in Monetary Economics,” Purdue University. West Lafayette, Indiana. Discussed “Dynamic Efficiency, Risk Sharing, and Equivalent Financial Mechanisms in an Endowment Economy,” by Pamela Labadie.
- April 2003. Bruce D. Smith Memorial Conference, University of Texas. Austin, Texas. Presented “Intermediaries and Payments Instruments.”
- April 2003. Macroeconomics seminar, University of Pennsylvania. Philadelphia, Pennsylvania. Presented “Learning and Structural Change in Macroeconomic Data.”
- March 2003. Macroeconomics seminar, Federal Reserve Bank of Philadelphia. Philadelphia, Pennsylvania. Presented “Did the Great Inflation Occur Despite Policymaker Commitment to a Taylor Rule?”
- March 2003. Conference on “Monetary Policy and Learning,” sponsored by the Federal Reserve Bank of Atlanta. Atlanta, Georgia. Presented “Did the Great Inflation Occur Despite Policymaker Commitment to a Taylor Rule?”
- March 2003. Macroeconomics seminar, University of Alberta, Edmonton, Alberta. Presented “Learning and Structural Change in Macroeconomic Data.”
- March 2003. Macroeconomics seminar, Simon Fraser University, Burnaby, British Columbia. Presented “Learning and Structural Change in Macroeconomic Data.”
- January 2003. Macroeconomics seminar, University of California at Irvine, Irvine, California. Presented “Learning and Structural Change in Macroeconomic Data.”
- January 2003. American Economic Association Meetings, Washington, DC. Discussed “Impacts of Priors on Convergence and Escapes from Nash Inflation,” by T. Sargent and N. Williams, and “The Social Value of Risk-Free Government Debt,” by S. Schreft and B.D. Smith.

- November 2002. Canadian Macroeconomics Study Group, Queen's University, Kingston, Ontario. Discussed "Identifying the Monetary Transmission Mechanism Using Structural Breaks," by A. Beyer and R. Farmer.
- October 2002. Federal Reserve System Committee on Macroeconomics. Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota. Presented "Learning to Detrend Macroeconomic Data."
- September 2002. Macroeconomics seminar, North Carolina State University, Raleigh, North Carolina. Presented "Learning to Detrend Macroeconomic Data."
- June 2002. Meetings of the Society for Economic Dynamics. New York University, New York City, New York. Presented "Learning to Detrend Macroeconomic Data."
- June 2002. Workshop on "Economic Dynamics," sponsored by the Center for Nonlinear Dynamics in Economics and Finance, University of Amsterdam. The Lorentz Center, Leiden, The Netherlands. Presented "Learning to Detrend Macroeconomic Data."
- April 2002. Midwest Macroeconomics Meetings. Vanderbilt University, Nashville, Tennessee. Presented "Intermediaries and Payments Instruments."
- April 2002. Federal Reserve System Committee on Macroeconomics. Board of Governors of the Federal Reserve System, Washington, DC. Presented "Escapist Policy Rules."
- March 2002. Macroeconomics seminar, University of Illinois, Champaign-Urbana, Illinois. Presented "Intermediaries and Payments Instruments."
- March 2002. Macroeconomics seminar, Purdue University, West Lafayette, Indiana. Presented "Intermediaries and Payments Instruments."
- March 2002. Texas Monetary Conference. Austin, Texas. Presented "Escapist Policy Rules."
- August 2001. Workshop on "Money and Payments," sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Presented "Intermediaries and Payments Instruments."
- June 2001. Meetings of the Society for Economic Dynamics. Stockholm, Sweden. Presented "The Value of Inside and Outside Money," and "Escapist Policy Rules."
- May 2001. Workshop on "The Origins of Central Banking." Sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Discussed "Laboratory Experiments with an Expectational Phillips Curve," by J. Arifovic and T. Sargent.
- March 2001. Midwest Macroeconomics Meetings. Sponsored by the Federal Reserve Bank of Atlanta. Atlanta, Georgia. Presented "Escapist Policy Rules."
- February 2001. Workshop on "Learning and Misspecification in Macroeconomics." Sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Presented "Escapist Policy Rules."
- December 2000. Macroeconomics Workshop, University of Pittsburgh. Pittsburgh, Pennsylvania. Presented "The Value of Inside and Outside Money."

- November 2000. Economics workshop, SUNY-Binghamton. Binghamton, New York. Presented “Learning About Monetary Policy Rules.”
- November 2000. National Bureau for Economic Research, Monetary Economics Group. Cambridge, Massachusetts. Discussed L. Svensson and M. Woodford, “Indicator Variables for Optimal Policy.”
- November 2000. Canadian Macroeconomics Study Group. Hamilton, Ontario. Presented “Learning About Monetary Policy Rules.”
- October 2000. Conference on “Payment Economics,” sponsored by the Federal Reserve Bank of Richmond. Williamsburg, Virginia. Presented “The Value of Inside and Outside Money.”
- October 2000. Money and banking workshop, Ohio State University. Columbus, Ohio. Presented “The Value of Inside and Outside Money.”
- September 2000. Macroeconomics workshop, University of Texas. Austin, Texas. Presented “Learning About Monetary Policy Rules.”
- May 2000. Federal Reserve System Committee on Macroeconomics. Sponsored by the Federal Reserve Bank of St. Louis. St. Louis, Missouri. Presented “Learning About Monetary Policy Rules.”
- April 2000. National Bureau of Economic Research, Monetary Economics Program meeting. Cambridge, Massachusetts. Presented “Learning About Monetary Policy Rules.”
- April 2000. Conference on “Central Banking and Payments,” sponsored by the Federal Reserve Bank of Cleveland. Cleveland, Ohio. Presented “Private and Public Circulating Liabilities.”
- March 2000. Conference on “Structural Change and Monetary Policy,” sponsored by Stanford University and the Federal Reserve Bank of San Francisco. San Francisco, California. Discussed “Learning About a Shift in Trend Output: Implications for Monetary Policy and Inflation,” by Kevin Lansing.
- January 2000. Conference on “Expectations Formation and Nonlinear Dynamics in Economics and Finance,” sponsored by the Center for the Study of Nonlinear Dynamics in Economics and Finance, University of Amsterdam. Amsterdam, the Netherlands. Presented “Learning and Excess Volatility.”
- December 1999. Macroeconomics workshop, University of Melbourne. Melbourne, Australia. Presented “Learning About Monetary Policy Rules.”
- December 1999. Conference on “Expectational and Learning Dynamics in Financial Markets,” sponsored by the University of Technology, Sydney. Sydney, Australia. Presented “Learning and Excess Volatility.”
- October 1999. Macroeconomics workshop, Iowa State University. Ames, Iowa. Presented “Learning About Monetary Policy Rules.”

- October 1999. Economics workshop, Southern Illinois University at Carbondale. Carbondale, Illinois. Presented “Learning About Monetary Policy Rules.”
- October 1999. Macroeconomics workshop, University of Kansas. Lawrence, Kansas. Presented “Learning About Monetary Policy Rules.”
- September 1999. Conference on “Expectations, Economic Theory, and Economic Policy,” sponsored by the European University Institute, the Bank of Italy, and the Center for Economic Policy Research. Perugia, Italy. Presented “Learning About Monetary Policy Rules.”
- September 1999. Federal Reserve System Committee on Macroeconomics. Cleveland, Ohio. Discussed “Optimal Taxation in Life-Cycle Economies,” by Martin Gervais and Andrés Erosa.
- July 1999. North American Summer Meetings of the Econometric Society. University of Wisconsin, Madison, Wisconsin. Presented “Complex Eigenvalues and Trend-Reverting Fluctuations.”
- July 1999. Meeting of the Society for Computational Economics. Boston College, Boston, Massachusetts. Presented “Learning and Excess Volatility.”
- April 1999. Midwest Macroeconomics Conference, University of Pittsburgh. Pittsburgh, Pennsylvania. Presented “Private and Public Circulating Liabilities.”
- January 1999. Macroeconomics workshop, Federal Reserve Bank of Richmond. Richmond, Virginia. Presented “Complex Eigenvalues and Trend-Reverting Fluctuations.”
- October 1998. Macroeconomics workshop, University of Kentucky. Lexington, Kentucky. Presented “Learning and Excess Volatility.”
- October 1998. Money and Banking workshop, University of Chicago. Chicago, Illinois. Presented “Complex Eigenvalues and Trend-Reverting Fluctuations.”
- October 1998. Midwest Macroeconomics Conference, Invited Plenary Session. Indiana University, Bloomington, Indiana. Presented “Complex Eigenvalues and Trend-Reverting Fluctuations.”
- June 1998. Meetings of the Society for Economic Dynamics. University of Pennsylvania, Philadelphia, Pennsylvania. Presented “Central Bank Design in General Equilibrium.”
- May 1998. Federal Reserve System Committee on Macroeconomics. Federal Reserve Bank of Chicago, Chicago, Illinois. Presented “Central Bank Design in General Equilibrium.”
- March 1998. Macroeconomics workshop, Rutgers University. New Brunswick, New Jersey. Presented “How Costly is Sustained Inflation for the U.S. Economy?”
- October 1997. Conference on “Macroeconomic Theory and Monetary Policy,” sponsored by the Federal Reserve Bank of Philadelphia. Philadelphia, Pennsylvania. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”

- October 1997. Conference on “Dynamic Models of Economic Policy,” sponsored by the University of Rochester, UCLA, and the Federal Reserve Bank of Minneapolis. Rochester, New York. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- October 1997. Macroeconomics workshop, University of Western Ontario. London, Ontario. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- September 1997. Macroeconomics workshop, University of Texas. Austin, Texas. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- July 1997. North American Summer Meetings of the Econometric Society. California Institute of Technology, Pasadena, California. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- May 1997. Economic theory workshop, Washington University. St. Louis, Missouri. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- April 1997. Midwest Macroeconomics Conference, Pennsylvania State University. University Park, Pennsylvania. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- March 1997. Conference on “Recent Developments in Macroeconomics,” sponsored by Stanford University and the Federal Reserve Bank of San Francisco. San Francisco, California. Discussed “Learning Dynamics” by George Evans and Seppo Honkapohja.
- March 1997. Macroeconomics workshop, Simon Fraser University. Burnaby, Canada. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- February 1997. Macroeconomics workshop, Indiana University-Purdue University at Indianapolis. Indianapolis, Indiana. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- February 1997. Macroeconomics workshop, Indiana University. Bloomington, Indiana. Presented “How Costly is Sustained Low Inflation for the U.S. Economy?”
- October 1996. Conference on “Expectations and Macroeconomics,” sponsored by the Federal Reserve Bank of Philadelphia. Philadelphia, Pennsylvania. Discussed “Calculation, Adaptation, and Rational Expectations,” by George Evans and Garey Ramey.
- November 1996. Macroeconomics workshop, University of Pittsburgh. Pittsburgh, Pennsylvania. Presented “Central Bank Design in General Equilibrium.”
- July 1996. Macroeconomics workshop, University of Warwick. Coventry, United Kingdom. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- June 1996. Theory workshop, sponsored by CEPREMAP and DELTA. Paris, France. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- May 1996. Macroeconomics workshop, the European University Institute. Florence, Italy. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”

- May 1996. Macroeconomics workshop, the Bank of England. London, United Kingdom. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- April 1996. Macroeconomics workshop, Universitat Pompeu Fabra. Barcelona, Spain. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- April 1996. Economics workshop, University of Bielefeld. Bielefeld, Germany. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- April 1996. Macroeconomics workshop, University of Tilburg. Tilburg, the Netherlands. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- March 1996. Macroeconomics workshop, Cornell University. Ithaca, New York. Presented “An Empirically Plausible Model of Low Real Interest Rates and Unbacked Government Debt.”
- November 1995. Workshop, Sante Fe Institute. Santa Fe, New Mexico. Presented “The Transition from Stagnation to Growth: An Adaptive Learning Approach.”
- October 1995. Federal Reserve System Committee on Macroeconomics, Federal Reserve Bank of New York. New York, New York. Presented “An Empirically Plausible Model of Low Real Interest Rates and Unbacked Government Debt.”
- October 1995. Macroeconomics workshop, University of Missouri. Columbia, Missouri. Presented “An Empirically Plausible Model of Low Real Interest Rates and Unbacked Government Debt.”
- July 1995. Meetings of the Society for Economic Dynamics and Control. Barcelona, Spain. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- April 1995. Macroeconomics Workshop, Board of Governors of the Federal Reserve System. Washington, DC. Presented “On Learning and the Stability of Cycles.”
- April 1995. Macroeconomics Workshop, University of Iowa. Iowa City, Iowa. Presented “On Learning and the Stability of Cycles.”
- November 1994. Macroeconomics Workshop, University of California at Riverside. Riverside, California. Presented “An Empirically Plausible Model of Low Real Interest Rates and Unbacked Government Debt.”
- November 1994. Macroeconomics Workshop, University of Southern California. Los Angeles, California. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- October 1994. Macroeconomics Workshop, Rutgers University. New Brunswick, New Jersey. Presented “An Empirically Plausible Model of Low Real Interest Rates and Unbacked Government Debt.”
- October 1994. Midwest Mathematical Economics, Pennsylvania State University. University Park, Pennsylvania.

- September 1994. Conference on “Finance, Fluctuations, and Development,” co-sponsored by the Federal Reserve Bank of Minneapolis, Cornell, and UCLA. Presented “A Low Real Interest Rate Economy.”
- June 1994. North American Summer Meetings of the Econometric Society. Quebec City, Canada. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- June 1994. Meetings of the Society for Economic Dynamics and Control. Hosted by UCLA. Los Angeles, California. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- May 1994. Midwest Mathematical Economics Association. Hosted by the University of Michigan. Ann Arbor, Michigan. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- February 1994. National Bureau of Economic Research, Macroeconomic Complementarities Group. Stanford University, Palo Alto, California. Presented “A Model of Learning and Emulation with Artificial Adaptive Agents.”
- September 1993. Macroeconomics workshop, Indiana University. Bloomington, Indiana. Presented “A Low Real Interest Rate Economy.”
- September 1993. Macroeconomics workshop, Washington University. St. Louis, Missouri. Presented “Learning Equilibria.”
- September 1993. Federal Reserve System Inflation Project, Board of Governors. Washington, DC. Presented “Superneutrality in Postwar Economies.”
- June 1993. Econometric Society, North American Summer Meetings, Boston University. Boston, Massachusetts.
- May 1993. Midwest Mathematical Economics Association, University of Kentucky. Lexington, Kentucky. Presented “Learning in a Large Square Economy.”
- March 1993. Midwest Economics Association, Indianapolis. Presented “A Low Real Interest Rate Economy.”
- February 1993. Macroeconomics workshop, Pittsburgh/Carnegie-Mellon. Presented “Learning in a Large Square Economy.”
- October 1992. Macroeconomics workshop, UCLA. Los Angeles, California. Presented “Learning Equilibria.”
- June 1992. Econometric Society, North American Summer Meetings, University of Washington. Seattle, Washington.
- June 1992. Meetings of the Society for Economic Dynamics and Control.
- November 1991. System Committee on Financial Analysis, Federal Reserve Bank of Boston. Boston, Massachusetts.



- June 1991. Meetings of the Society for Economic Dynamics and Control. Capri, Italy. Presented "Learning Equilibria."
- May 1991. Midwest Mathematical Economics Association, Northwestern University. Evanston, Illinois. Presented "Learning Equilibria."
- November 1990. System Committee on International Economics, Federal Reserve Bank of Atlanta. Atlanta, Georgia. Presented "Collapsing Exchange Rate Regimes: A Reinterpretation."
- April 1990. System Committee on Business Conditions, Federal Reserve Bank of Chicago. Chicago, Illinois. Discussed "Collateralized Debt as the Optimal Contract," by Jeffrey Lacker.

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