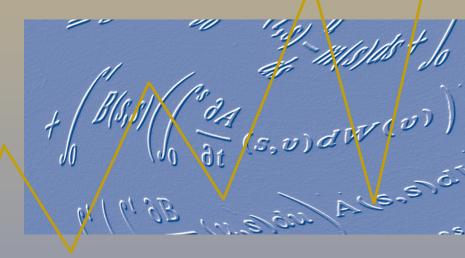
MACROECONOMIC DYNAMICS



EDITOR: WILLIAM A. BARNETT

CAMBRIDGEUNIVERSITY PRESS

MACROECONOMIC DYNAMICS

Editor: William A. Barnett, University of Kansas, Department of Economics, 356 Snow Hall, 1460 Jayhawk Boulevard, Lawrence, KS 66045–7523, USA.

Book Review Editors: Michele Boldrin, Department of Economics, Washington University, One Brookings Drive, St. Louis, MO63130, and Universidad Carlos III, Madrid; Gregory D. Hess, Department of Economics, 500 East 9th Street, Claremont McKenna College, Claremont, CA 91711.

Special Issues Editors: Stephen Turnovsky, Department of Economics, Box 353330, University of Washington, Seattle, WA 98195; Lee Ohanian, Department of Economics, UCLA, 2261 Bunche Hall, 405 Hilgard Avenue, Los Angeles, CA 90024.

Editorial Information System Manager: Stephen E. Spear, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburgh, PA 15213.

Local Area Network Manager: Nathan Haley, Lawrence, Kansas.

Editorial Associate: Melinda Barnett, University of Kansas.

Advisory Editors:

Jean-Pascal Bénassy (CEPREMAP, Paris), Willem Buiter (London School of Economics and Political Science, London), Francis X. Diebold (University of Pennsylvania), Steven Durlauf (University of Wisconsin), Douglas Gale (New York University), Giancarlo Gandolfo (University of Rome), Roger Guesnerie (DELTA, Paris), Takatoshi Ito (University of Tokyo), Timothy Kehoe (University of Minnesota), Finn Kydland (Carnegie Mellon University), Lung-Fei Lee (Ohio State University), Adrian Pagan (Australian National University), Robert Townsend (Massachusetts Institute of Technology), Mark Watson (Princeton University), Kenneth West (University of Wisconsin), Michael Woodford (Columbia University), Randall Wright (University of Pennsylvania)

Associate Editors:

Gaetano Antinolfi (Washington University), Jasmina Arifovic (Simon Fraser University), Pierpaolo Benigno (LUISS Guido Carli, Rome), Joydeep Bhattacharya (Iowa State University), Florin Bilbiie (Paris School of Economics), Volker Böhm (University of Bielefeld, Germany), Raouf Boucekkine (Universite Catholique de Louvain, Belgium), Jeffrey Campbell (Federal Reserve Bank of Chicago), Shankha Chakraborty (University of Oregon), Marcelle Chauvet (University of California at Riverside), Rose-Anne Dana (Université Paris IX-Dauphine), Christophe Deissenberg (University d'Aix-Marseille II), Huberto Ennis (Federal Reserve Bank of Richmond), Alvaro Escribano (Universidad Carlos III de Madrid, Spain), Emilio Espino (Buenos Aires, Argentina), George Evans (University of Oregon), Ester Faia (Goethe University of Frankfurt), Roger Farmer (UCLA), Peter Flaschel (University of Bielefeld, Germany), Luisa Fuster (Madrid Institute of Advanced Studies, Spain), Oded Galor (Brown University and Hebrew University of Jerusalem), Marc Giannoni (Federal Reserve Bank of New York), Liam Graham (University College, London), Thorvaldur Gylfason (University of Iceland), John Hassler (Stockholm University), Moshe Hazan (The Hebrew University of Jerusalem), Cars Hommes (University of Amsterdam, The Netherlands), Seppo Honkapohja (Bank of Finland, Helsinki), Kevin X.D. Huang (Vanderbilt University), Svend Hylleberg (Aarhus University, Denmark), Leo Kass (University of Konstanz, Germany), Todd Keister (Federal Reserve Bank of New York), Sharon Kozicki (Bank of Canada), Blake LeBaron (Brandeis University), Helmut Lütkepohl (European University Institute, Florence), Iourii Manovskii (University of Pennsylvania), David Marshall (Federal Reserve Bank of Chicago), Alfredo Medio (University of Udine, Italy), Jianjun Miao (Boston University), Omer Moav (The Hebrew University of Jerusalem), Cyril Monnet (University of Bern, Switzerland), José V. Rodriguez Mora (University of Edinburgh, UK), Lee Ohanian (UCLA), Claudia Olivetti (Boston University), Patrick Pintus (Université de la Méditerranée & GREQAM, France), Bruce Preston (Columbia University), Neil Rankin (University of York, UK), Francisco Ruge-Murcia (University of Montreal), Gilles Saint-Paul (Université de Toulouse, France), Argia M. Sbordone (Federal Reserve Bank of New York), Klaus Martin Schneider (Stanford University), Apostolos Serletis (University of Calgary, Canada), Frank Smets (European Central Bank, Frankfurt), Tony Smith (Yale University), Peter Norman Sorensen (University of Copenhagen, Denmark), Stephen Spear (Carnegie Mellon University), Stephen Turnovsky (University of Washington), Farshid Vahid (Monash University, Australia), Francois R. Velde (Federal Reserve Bank of Chicago), Nicolaas Vriend (Queen Mary, University of London), Neng Wang (Columbia University), Ronald Wendner (University of Graz, Austria), Sevin Yeltekin (Carnegie Mellon)

MACROECONOMIC DYNAMICS

Volume 16, Number 5, November 2012 Contents

4	R^{7}	ΓI	C	I	F۷	•
$\overline{}$	Λ	•		1	ノン・フ	

Environmental Policy, Education and Growth: A Reappraisal When Lifetime Is Finite Xavier Pautrel	661
Aavier Pautrei	661
A Theory of Economic Development with Endogenous Fertility Ceyhun Elgin	686
Demographic Change and the Great Moderation in an Overlapping Generations Model with Matching Frictions	
Steven Lugauer	706
An Ordering of Measures of the Welfare Cost of Inflation in Economies with Interest-Bearing Deposits	722
Rubens Penha Cysne and David Turchick	732
Collateral Constraint and News-Driven Cycles Keiichiro Kobayashi, Tomoyuki Nakajima, and Masaru Inaba	752
NOTES	
A Note on Monetary Policy, Asset Prices, and Model Uncertainty Meixing Dai and Eleftherios Spyromitros	777
A Note on Endogenous Propagation in One-Sector Business Cycle Models with Dynamic Complementarities	
Mao-Wei Hung and Shue-Jen Wu	791
A Note on Foreign Exchange Interventions at Zero Interest Rates Shigeru Iwata and Shu Wu	802

SUBSCRIPTION INFORMATION: Macroeconomic Dynamics (ISSN 1365-1005) is published five times a year plus supplements. Annual subscription rates for Volume 16, 2012: Institutional rate is (print and electronic) \$662.00 in the USA, Canada, and Mexico, £399.00 + VAT elsewhere. Institutional rate (electronic only) \$553.00 in the USA, Canada, and Mexico, £338.00 + VAT elsewhere. Institutional rate (print only) \$608.00 in the USA, Canada, and Mexico, £361.00 + VAT elsewhere. Individual rate is (print and electronic) \$187.00 in the USA, Canada, and Mexico, £105.00 + VAT elsewhere. Individual rate (print only) \$196.00 in the USA, Canada, and Mexico, £111.00 + VAT elsewhere. Students (print only) \$122.00 in the USA, Canada, and Mexico, £46.00 + VAT elsewhere. For members of the Econometric Society, the Society for the Advancement of Economic Theory, the Society for Nonlinear Dynamics and Econometrics, the Society for Computational Economics, and the Society for the Promotion of Economic Theory the rate is \$100.00 in the USA, Canada, and Mexico, £62.00 + VAT elsewhere. Institutional access is via IP address range(s) or domain name(s); individual subscriber access is via a username and password. Prices include postage; airmail is extra. Write to Cambridge University Press, 32 Avenue of the Americas, New York, NY 10013-2473, or outside the USA, Canada, and Mexico to Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 8RU, England. Claims for missing issues should be made immediately after receipt of the next issue.

Periodicals postage pending at NewYork, NY and additional mailing offices. Postmaster: send address changes in the USA, Canada, and Mexico to: *Macroeconomic Dynamics*, Cambridge University Press, 100 Brook Hill Drive, West Nyack, NY 10994-2133. Send address changes elsewhere to: *Macroeconomic Dynamics*, Journals Dept., Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge, CB2 8RU, U.K.

© 2012 Cambridge University Press. Photocopying information for users in the USA: The Item-Fee Code for this publication indicates that copying for internal or personal use beyond that permitted by Section 107 or 108 of the US Copyright Law is authorized for users duly registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the appropriate remittance of \$18.00 per article is paid directly to: CCC, 222 Rosewood Drive, Danvers, MA 01923. Specific written permission must be obtained from the publisher for all other copying. The Item-Fee Code for this journal is 1365-1005/12 \$18.00.

ISI Tearsheet Service, 3501 Market Street, Philadelphia, PA 19104, USA is authorized to supply single copies of separate article for private use only. Article reprints are available from the authors. For orders of 50 or more reprints, contact Cambridge University Press.

Macroeconomic Dynamics is indexed in EconLit; The Journal of Economic Literature (e-JEL and JEL on CD); ISI: Current Contents/Social & Behavioral Sciences; Social Sciences Citation Index; Research Alert; Mathematical Reviews: MathSciNet: Zentralblatt fur Mathematik.

EDITORIAL POLICY

Macroeconomic Dynamics publishes research of the highest theoretical, empirical or quantitative sophistication. Papers of high quality are welcomed from all areas of advanced macroeconomics and allied fields, so long as the research is founded in a rigorous scientific approach. Major advances in macroeconomics without immediate policy applications also are accepted, if they show potential for application in the future. Occasional book reviews, software reviews, announcements, conference proceedings and interviews are published.

An **electronic version of the journal** is published just prior to the paper version at **journals.cambridge.org/mdy**. Access to the full-text articles of the electronic version will be limited to institutional subscribers of the hard copy version of the journal, with access available to all online users at that institution's registered domain. Tables of Contents, abstracts, searching and alerting services will remain free of charge. To view the full text of *Macroeconomic Dynamics*, you will need to use the Adobe Acrobat Reader software. If you do not have a copy already, you can get it free of charge. Just follow the link from our Cambridge Journals Online home page, download it, and install it as a plug-in helper application for your browser.