

Michele Boldrin
Curriculum Vitae et Studiorum

Current Position.

Joseph Gibson Hoyt Distinguished Professor of Economics in Arts & Sciences
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Education.

Ph.D. (Economics), University of Rochester, 1987.
M.A. (Economics), University of Rochester, 1985.
Laurea (Economics), Università di Venezia, 1982.

Teaching and Research Experience

2006-present,	Professor, Washington University in Saint Louis, St Louis, MO.
1999-2006,	Professor and DGS, University of Minnesota, Minneapolis, MN.
2002-2003,	Visiting Professor, Universidad Carlos III de Madrid,.
1994-1999,	<i>Marc Rich</i> Professor, Universidad Carlos III de Madrid.
1996-1999,	Visiting Professor, Univ. of Chicago, Univ. of Pennsylvania, UCLA.
1990-1994,	Associate Professor, Kellogg GSM, Northwestern University.
1990-1994,	Visiting Professor, Univ. Autonoma Barcelona, Univ. Carlos III Madrid, Univ. Bocconi Milano.
1987-1994,	External Assistant, and Associate Professor, Santa Fe Institute.
1987-1994,	Assistant, then Associate Professor, Department of Economics, UCLA.

Honors and Other Professional Activities

2000-present,	Fellow, <i>Econometric Society</i> .
1997-2002,	Vice-President and President, <i>Associazione Internazionale degli Economisti Italiani</i> .

Editorial

2003-present,	Associate Editor, <i>Econometrica</i> .
1996-present,	Associate Editor, then Editor, <i>Review of Economic Dynamics</i> .
1996-present,	Advisory Editor, then Book Review Editor, <i>Macroeconomic Dynamics</i> .
1995-2002,	Editor, <i>Cuadernos Económicos</i> , Ministerio de Economía y Hacienda, Madrid.
1995-1997,	Associate Editor, <i>Economic Theory</i> .
1994-2003,	Associate Editor, <i>Journal of Nonlinear Economic Dynamics</i> .
1994-2000,	Associate Editor, <i>International Economic Review</i> .
1991-1995,	Member of the Advisory Board of <i>Chaos: an Interdisciplinary Journal of Nonlinear Sciences</i> , American Institute of Physics.

Invited Lectures

2006,	“Innovation and Growth under Competition”, Invited Lecture, <i>LAMES-LACEA</i> , Mexico-DF, November.
2006,	“A Theory of Business Cycle”, Invited Lecture,

- 2005, *Australian Macrodynamics Workshop*, Canberra, August.
 “Issues in the Design of the Optimal Pension Plan”, Plenary Lecture, Copenhagen, CEBR-CESifo Conference on “Pension Reform”, June.
- 2004, “Globalization, Intellectual Property, and Economic Prosperity”, Invited Lecture, Budapest, 50th Anniversary of the Economics Section, *Hungarian Academy of Sciences*.
- 2003, “Spanish Economic Review” Lecture, Simposio de Análisis Económicos, Sevilla.
- 2002, Invited Lecture: “Regional Convergence and EU Enlargement”, *XIII Congress of the International Economic Association*, Lisbon.
- 2001, *Latin American Meetings of the Econometric Society*, Buenos Aires.
Revista de Analisis Economicos Lecture on “Reforming Social Security”.
- 1999, *Latin American Meetings of the Econometric Society*, Cancun.
 Invited Lecture “Open Issues in the Theory of Economic Growth”.

Professional Services

- 2002-2005, Director, “Observatorio de América Latina”, Fundación BBVA, Madrid.
- 2002-2005, Member, Consejo Editorial, *Expansión*, Madrid.
- 2001-2002, Member of the *Commissione per la Revisione del Sistema Previdenziale*, Ministero del Welfare e della Sicurezza Sociale, Roma.
- 1997-2002, Co-Director, “School on the Mathematics of Economics”, *The Abdus Salam International Centre for Theoretical Physics*, Trieste, Italy.
- 1994-1997, Director, *Master en Analisis Financiero*, Univ. Carlos III.
- 1994-1996, Member of the *Consiglio Tecnico-Scientifico per la Programmazione Economica*, Ministero del Bilancio e della Programmazione Economica, Roma.
- 1991-1997, Council Member, *Society for Economic Dynamics*.
- 1991, Chairman, Scientific Program Committee, *SEDC Annual Meetings*, Capri.

Research Grants and Fellowships

- 2001-2005, *NSF Grant* “Determinants of Demographic Choice and Intergenerational Transfers”.
- 1997-2001, *EU-DG XII Grant* “New Approaches to the Study of Economic Fluctuations”.
- 1994-2009, *Research Ministry, Spain*, various research grants.
- 1996-2002, *Fundación BBV*, Research Grant on “Reforming the Spanish Social Security System”.
- 1995-present, Research Fellow, *CEPR*.
- 1994-present, CICYT and DGICYT (Spain), various Research Grants.
- 1993-1994, *Spencer Foundation*, Research Grant.
- 1992-2002, *European Science Foundation*, Various Research Grants.
- 1986-1987, A.P.Sloan Doctoral Dissertation Fellowship.
- 1986-1987, Post-Doctoral Fellow, Dept. of Economics, University of Chicago.

Publications

Books

1. *Competitive Equilibrium Dynamics*, (with L.Montrucchio), in progress.
2. *General Equilibrium, Growth and Trade II: Essays in Honor of Lionel W. McKenzie*, (edited jointly with R.Becker, R.Jones and W.Thomson), New York, Academic Press, 1993.
3. *Sistema de Pensiones y Mercado de Trabajo en España*, (joint with Sergi Jimenez and Franco Peracchi), Fundación Banco Bilbao e Vizcaya, Bilbao, Madrid, 2000.
4. *Human Capital, Trade and Financial Development in Rapidly Growing Economies: From Theory to Empirics*, (edited with Been-Lon Chen and Ping Wang), Kluwer Publ. Co., 2004.
5. *Against Intellectual Monopoly*, (with David K.Levine), forthcoming Cambridge University Press, 2007.

Refereed Articles

1. "Cyclic and Chaotic Behavior in Intertemporal Optimization Models" (with L. Montrucchio), *Mathematical Modelling*, **21** (1985).
2. "On the Indeterminacy of Capital Accumulation Paths" (with L. Montrucchio), *Journal of Economic Theory*, **40** (1986). Reprinted in R.Becker and E.Burmeister (eds.) *Growth Theory: a Readings*, New York, Edward Elgar Publishing, 1991.
3. "Acyclicity and Stability for Intertemporal Optimization Models" (with L. Montrucchio), *International Economic Review*, **29** (1988).
4. "Learning by Doing, International Trade and Growth: A Note" (with J. Scheinkman), in P.Anderson et al. (eds.) *The Economy as an Evolving Complex System*, New York, Addison Wesley, 1988.
5. "Paths of Optimal Accumulation in a Two-Sector Model", in W.Barnett et al. (eds.) *Economic Complexity: Chaos, Sunspots, Bubbles and Nonlinearity*, Cambridge, Cambridge University Press, 1989.
6. "Sources of Complex Dynamics in Two-Sector Models" (with R.Deneckere), *Journal of Economic Dynamics and Control*, **14** (1990). Reprinted in J.Benhabib (ed.) *Cycles and Chaos in Economic Equilibrium*, Princeton, Princeton University Press, 1992.
7. "Equilibrium Models Displaying Endogenous Fluctuations and Chaos: A Survey" (with M. Woodford), *Journal of Monetary Economics*, **25** (1990). Reprinted in J.Benhabib (ed.) *Cycles and Chaos in Economic Equilibrium*, Princeton, Princeton University Press, 1992.
8. "Perfectly Competitive Models of Endogenous Business Fluctuations", *European Economic Review*, **35** (1991).
9. "Dynamic Externalities, Multiple Equilibria and Growth", *Journal of Economic Theory*, **58** (1992), 198-218.
10. "A Dynamic Equilibrium Model of Search, Production and Exchange", (with N. Kiyotaki and R. Wright), *Journal of Economic Dynamics and Control*, **17** (1993), 723-757.
11. "Growth and Indeterminacy in Dynamic Models with Externalities" (with A. Rustichini), *Econometrica*, **62** (1994), 323-343.
12. "Acyclicity and Dynamic Stability: Generalizations and Applications"(with L. Montrucchio), *Journal of Economic Theory*, **65** (1995).
13. "Labor Contracts and Business Cycles" (with M. Horvath), *Journal of Political Economy* **103** (1995), 972-1004.
14. "Educación Publica, Crecimiento y Desigualdad Social" (with Ana Montes), *Moneda y Credito* **153** (1997).
15. "Habit Persistence and Asset Returns in an Exchange Economy" (with L. Christiano and J. Fisher), *Macroeconomic Dynamics* **1**, no. 2, 1997.
16. "The Future of Pension Systems in Europe. A Reappraisal", (with J.J. Dolado, J. F. Jimeno and F. Peracchi), *Economic Policy* **29**, October 1999.
17. "Political Equilibria with Social Security", (with A. Rustichini), *Review of Economic Dynamics* **3** (2000), 41-78.
18. "Growth Cycles and Market Crashes", (with D K. Levine), *Journal of Economic Theory* **96**(2001), 13-39.
19. "Chaotic Equilibrium Dynamics in Endogenous Growth Models", (with K. Nishimura, T. Shigoka and M. Yano), *Journal of Economic Theory* **96** (2001), 97-132.
20. "Inequality and Convergence: Reconsidering European Regional Policies", (with Fabio Canova), *Economic Policy*, **32** (2001), 207-253.
21. "Habit Persistence, Asset Returns and the Business Cycle", (with L.Christiano and J.Fisher), *American Economic Review* **91** (2001), 149-166.
22. "Factor Saving Innovation", (with D.K. Levine), *Journal of Economic Theory* **105** (2002), 18-41.
23. "The Case Against Intellectual Property", (with D.K. Levine), *American Economic Review, Papers and Proceedings* **92** (2002), 209-212.
24. "Mortality, Fertility, and Saving in a Malthusian Economy", (with L.E. Jones) *Review of Economic Dynamics* **5** (2002), 775-814.
25. "Rent-Seeking and Innovation," (with David K. Levine) *Journal of Monetary Economics*, **51** (2004), 127-160.

26. "2003 Lawrence Klein Lecture: The Case Against Intellectual Monopoly", (with David K. Levine) *International Economic Review*, **45** (2004), 327-350.
27. "The Intergenerational State: Public Education and Pensions", (with A. Montes) *Review of Economic Studies*, **72** (2005), 651-664.
28. "The Economics of Ideas and Intellectual Property", (with David K. Levine) *Proceedings of the National Academy of Sciences*, **102** (2005), 1252-1256.
29. "Intellectual Property, and Economic Progress", (with David K. Levine) *Spanish Economic Review* (2005), .
30. "Public Education and Capital Accumulation," *Research in Economics* (2005), **59**, 85-109.
31. "Intellectual Property and the Efficient Allocation of Surplus from Creation" (with David K. Levine), *Review of Economic Research in Copyright Issues*, **2** (2005), 45-67.
32. "Innováció – a verseny szemszögéből," (with David K. Levine), *Közgazdasági Szemle* **LII** (2005), 537-555.
33. "Perfectly Competitive Innovation", (with David K. Levine), First Version: October 2001, forthcoming *Journal of Monetary Economics*, 2007.

Works in Italian and Spanish

1. "La Teoria Matematica del Ciclo Economico", Tesi di Laurea, Università di Venezia, Luglio 1982.
2. *Il Settore dei Trasporti nel Sistema Intersettoriale dell'Economia Veneta*, Milano, Franco Angeli, 1984.
3. "Note per la Costruzione di un Modello Aggregato di Lungo Periodo dell'Economia Veneta", Rapporto Interno IRSEV No. 23, Giugno 1984.
4. "Su Alcuni Recenti Progressi nell'Analisi Dinamica in Economia", *Ricerche Economiche*, 38 (1984).
5. "La crisi italiana. Ipotesi sul federalismo possibile" (with Aldo Rustichini), in Giavazzi, F., Penati, A. and Tabellini, G. (eds.) *Frontiere della Politica Economica*, Milano, Sole-24 Ore, 1995.
6. *El Potencial de Crecimiento y los Riesgos en la Evolución de la Economía Española*, (with C. Escribano, T. Espasa y J. Urrutia), Instituto Flores de Lemus, Mayo 1995.
7. "Federalismo Competitivo e Federalismo Cooperativo: Esempi Stranieri e Lezioni per l'Italia", *I Volti del federalismo* I.S.P.I., Milano, 1996.
8. "Interacciones entre la financiación de la educación y el proceso de acumulación de capital", *Ekonomiaz* **35** (1996), 69-91.
9. "Sistema de pensiones y pensiones mínimas: Incentivos a la permanencia en activo y evaluación de reformas" (with S. Jiménez-Martin and A. Sánchez), *Hacienda Pública Española*, 2001.

Conference Proceedings and Collected Volumes

1. "Persistent Oscillations and Chaos in Dynamic Economic Models: Notes for a Survey", in P.Anderson et al. (eds.) *The Economy as an Evolving Complex System*, New York , Addison Wesley, 1988.
2. "Dynamic Competitive Equilibria and Chaos", in *The Ubiquity of Chaos. Proceedings of the 1989 Meetings of the A.A.A.S.*, New York , AAAS, 1990.
3. "The Impact of Chaos on Economics and Finance" in C.Grebogi and J.Yorke (eds.) *The Impact of Chaos on Sciences and Society*, Tokyo, New York, United Nations University Press, 1996.
4. "Chaotic Dynamic and Economic Equilibrium Theory", in D.Lam (ed.) *Proceedings of the Third Woodward Conference on Nonlinear Dynamics*, Berlin, New York, Springer-Verlag, 1992.
5. "Competitive Markets and Endogenous Cycles: an Evaluation", in W.Semmler (ed.) *Business Cycles: Theory and Empirical Methods*, Norwell, MA: Kluwer Academic Publishers, 1994.
6. "Income Distribution and Economic Development", in *Perspectivas teóricas y comparadas de la igualdad*, Fundación Argentaria, Madrid, 1996.
7. "Trade Liberalization and Private Saving, the Spanish Experience: 1960-1995" (with Juan Manuel Martin Prieto) in Gavin, M. et. al. (eds.) *Determinants of Domestic Savings in Latin America*, coordinated by the Office of the Chief Economist, InterAmerican Development Bank under the Second Regional Research Network Project, 1997.

8. "Social Security and Retirement in Spain" (with F. Peracchi and S. Jimenez), in Jonathan Gruber and David Wise (eds.) *Social Security and Retirement Around the World*, The University of Chicago Press for the N.B.E.R., 1999.
9. "Regional Economic Convergence: Is European Regional Policy Worth Keeping?", in J. von Hagen (ed), *Regionalism In Europe*, Kluwer, 2000.
10. "Micro Modeling of Retirement Behavior in Spain" (with F. Peracchi and S. Jimenez), in Jonathan Gruber and David Wise (eds.) *Social Security Programs and Retirement Around the World: Micro-Estimation*, The University of Chicago Press for the N.B.E.R., 2003.
11. "Evaluating Spanish Pension Expenditure Under Alternative Reform Scenarios," (with S. Jimenez), in Jonathan Gruber and David Wise (eds.) *The Fiscal Implications of Social Security Reform Around the World.*, , The University of Chicago Press for the N.B.E.R., 2006.
12. "Regional Policies and E.U. Enlargement", (with F. Canova) in B. Funck and L. Pizzati (eds.) *European Integration, Regional Policy, and Growth*, The World Bank, Washington, D.C., 2003.
13. "Regional Policies and Economic Growth in the European Union", in A. Deardoff (ed.) *The Past, Present, and Future of the European Union*, Blackwell Publ. Co., for the International Economic Association, 2004.
14. "Regional Policies after the EU Enlargement", in M. Artis, A. Banerjee and M. Marcellino (eds.) *The Central and Eastern European Countries and the EU*, Cambridge University Press, 2005.
15. "Intellectual Property", (with David K. Levine), entry in *The New Palgrave. A Dictionary of Economics*, edited by L. Bloom and S. Durlauf.
16. "Uniqueness of Equilibria in Dynamic Models", entry in *The New Palgrave. A Dictionary of Economics*, edited by L. Bloom and S. Durlauf.
17. "The Implications of Social Security for the Well-being of the Elderly," (with S. Jimenez), forthcoming in Jonathan Gruber and David Wise (eds.) *Social Security Programs and Well-being of the Elderly Around the World. Volume 4*, (preliminary title), The University of Chicago Press for the N.B.E.R., 2007.
18. "Intellectual Property and the Efficient Allocation of Social Surplus from Innovation" (with David K. Levine), in Porrini, Donatella and Ramello, Giovanni *Property Rights Dynamics in the Third Millenium*, Routledge, 2007.

Book Reviews

1. "Chaotic Economic Dynamics", by Richard Goodwin, in *Economica*, 1993.
2. "Financial Dynamics and the Business Cycles", edited by W.Semmler, in *Journal of Economic Literature*, 29 (1991).
3. "Differential Equations, Stability and Chaos in Dynamic Economies", by William Brock and A.Malliaris, in *Journal of Political Economy* 99 (1991).
4. "The Dynamics of Market Economies", edited by Richard Day and Gunnar Eliasson, in *Journal of Economic Literature*, 26 (1988).

Unpublished Working Papers

1. "Applying Bifurcation Theory: Some Simple Results on Keynesian Business Cycles", W.P. 8403, Università di Venezia, September 1982.
2. "On the Emergence of Dynamical Complexities in Models of Optimal Growth: the Role of Impatience" (with L.Montrucchio), mimeo, University of Rochester, October 1984.
3. "On the Differentiability of the Policy Function" (with L. Montrucchio), mimeo, UCLA Econ. Dept., April 1988.
4. "Threshold Externalities and Economic Development: a Note", D.P. 953, CMSEMS, Northwestern University, April 1991.
5. "Growth Under Perfect Competition. Heterogeneous Agents", (with David Levine), mimeo Universidad Carlos III and UCLA, 1997.

6. "Asset Pricing Lessons for Modeling Business Cycles", (with L.Christiano and J.Fisher) mimeo, Univ. Carlos III and Northwestern University, September 1994; N.B.E.R. working paper No. 5262, 1995.
7. "Fertility and Social Security" (with Maria Cristina De Nardi and Larry E. Jones), mimeo, University of Minnesota, May 2003.
8. "Assessing the Efficiency of Public Education and Pensions", (with Ana Montes Alonso), mimeo, University of Minnesota and U. de Murcia, January 2004.
9. "IP and Market Size," (with David K. Levine), mimeo, University of Minnesota and UCLA, November 2004.
10. "From Busts to Booms in Babies and Goodies," (with Larry E. Jones and Alice Schoonbroodt)
11. "Three Equations Generating an Industrial Revolution?" (with Aubhik Khan, Larry E. Jones)

Work in Progress

1. "Dynamic and Transactional Sources of Conflict," (with Jack Hirshleifer (†) and David K. Levine)
2. "Innovation and the Theory of Industrial Organization," (with David K. Levine)
3. "A Theory of the Business Cycle," (with Jesus Fernandez Villaverde)
4. "The True Social Cost of Intellectual Property," (with David K. Levine)
5. "The Two Transitions, Demographic and Industrial," (with Aubhik Khan and Larry E. Jones)
6. "Mortality, Fertility, and Intergenerational Transfers: A Long Run Perspective," (with Larry E. Jones)
7. "From Busts to Booms in Babies and Goodies," (with Larry E. Jones and Alice Schoonbroodt)
8. "Innovation and Industrial Organization: the Facts," (with Carmine Ornaghi and Fabio Castiglionesi).
9. "An Aggregate Theory of the Stock Market Behavior," with Adrian Peralta Alva