## Kevin L. Reffett

## $\mathbf{CV}$

(Updated, March 2018)

#### Address:

W.P. Carey School of Business Department of Economics Arizona State University Tempe AZ, 85287

Email: <u>Kevin.Reffett@asu.edu</u>
Webpage: <u>www.kevin-reffett.com</u>

## **Education**

University of Iowa, BBA, 1983 University of Iowa, MA, Economics, 1985 Purdue University, Ph.d., 1990

## **Positions**

Assistant Professor, Florida State University, 1990-1995 Associate Professor, Arizona State University, 1995-2015 Professor, Arizona State University, 2015-present

## **Visiting Positions**

Visiting Professor, University of Paris 1 (Sorbonne), May-July 2009; May-June, 2012, May-June 2015) Visiting Professor, Erasmus University (Netherlands), (Fall 1998, Spring 2009)

## **Associate Editor**

Dynamic Games and Applications
Journal of Public Economic Theory
Journal of Dynamics and Games
Guest co-Editor (w/ Ed Prescott): Dynamic Games and Applications: Dynamic Games and
Macroeconomics, for Dynamic Games and Applications, (2016)

## **Research Areas**

Markovian Equilibrium in Dynamic General Equilibrium Models with Growth Fixed Point Theory in Ordered Spaces
Games of Strategic Complementarities in Ordered Spaces
Dynamic Games

**Research Papers:** (all papers available at my webpage www.kevin-reffett.com)

## **Publications**

- L. Balbus, K. Reffett, L. Wozny, 2018. On uniqueness of time consistent Markov policies for quasi-hyperbolic consumers under uncertainty (conditionally accepted, *Journal of Economic Theory*).
- L. Balbus, P. Dziewulski, K. Reffett, L Wozny, 2018. A qualitative theory of large games with strategic complementarities. forthcoming *Economic Theory*.
- O. Morand, K. Reffett, S. Tarafdar. 2018. Generalized Envelope Theorems: Applications to Dynamic Programming. *Journal of Optimization and Applications*, forthcoming.
- M. Datta, K. Reffett, and L. Wozny. 2017. Comparing Dynamic Equilibria in Models with Indeterminacies and dynamic complementarities. (forthcoming *Economic Theory*)
- L. Balbus, K. Reffett, L. Wozny. 2016. Monotone Equilibria in Nonatomic Supermodular Games: a Comment. *Games and Economic Behavior*, 82-87.
- L. Mirman, K. Reffett, M. Santugini. 2016. On Learning and Growth. *Economic Theory*, forthcoming.
- E. Prescott, K. Reffett. 2016. Preface: A Special Issue on Dynamic Games in Macroeconomics. *Dynamic Games and Applications*.
- O. Morand, K. Reffett, S. Tarafdar. 2015. A Nonsmooth Approach to Envelope Theorems. *Journal of Mathematical Economics*. 157-165.
- L. Balbus, P. Dziewulski, K. Reffett, L Wozny, 2015. Differential information in large games with strategic complementarities. *Economic Theory*. 201-243
- T. Kamihigashi, K. Reffett, and M. Yao. 2015. An application of Kleene's fixed point theorem to dynamic programming: a note. *International Journal of Economic Theory*. 429-434.
- L. Balbus, K. Reffett, and L. Wozny. 2014. Time Consistent Markov Policies in Dynamic Economies with Quasi-Hyperbolic Consumers. *International J. of Game Theory*. 83-112.
- L. Balbus, K. Reffett, and L. Wozny. 2014. A constructive study of Markov equilibrium in Stochastic games with strategic complementarities, *Journal of Economic Theory*. 150, 815-840.
- J. McGovern, O. Morand, and K. Reffett. 2013. "Computing Minimal State Space Recursive Equilibrium in OLG Economies with Stochastic Production", *Economic Theory*, 54, 623-674.
- L. Balbus, K. Reffett and L. Wozny, 2013. A constructive approach to the existence and uniqueness of Markov perfect equilibrium in games of intergenerational altruism, *Journal of Economic Dynamics and Control*. 37, 1019-1039.
- L. Balbus, K. Reffett, and L Wozny. 2013, Markov stationary equilibrium in stochastic supermodular games with imperfect private and public information. 2013. *Dynamic Games and Applications* (special issue of journal in honor of Lloyd Shapley). 3, 187-206

- L. Balbus, K. Reffett, and L Wozny. 2012. Stationary Markovian equilibrium in altruistic stochastic OLGs models without commitment, *Journal of Mathematical Economics*. 48(3), 115-132.
- M. Datta, L. Mirman, and K.L. Reffett. 2011. Lattice theoretic characterizations of stationary Markov equilibrium for nonclassical Brock-Mirman economies" in *Some Contemporary Issues in Development and Growth Economics*, edited A. Dhar. Allied Press.
- L. Mirman, O. Morand, and K.L. Reffett. 2008. A qualitative approach to Markovian equilibrium in infinite horizon economies with capital. *Journal of Economic Theory*. 139(1), 75-98.
- O. Morand and K. Reffett. 2007. Stationary Markovian equilibrium in Overlapping Generations Models with stochastic production and Markov shocks. *Journal of Mathematical Economics*. 43, 3-4, 501-522.
- S. Heikkila and K. Reffett. 2006. Fixed point theorems and their applications to the theory of Nash equilibria. *Nonlinear Analysis*, 1415-1436.
- M. Datta and K. Reffett 2006. Isotone recursive methods. *Handbook of Optimal Growth 1: Discrete Time*, edited Roseanne Dana, Cuong LeVan, Kazuo Nishimura, and Tapan Mitra, Springer Press, 203-250.
- M. Datta, L. Mirman, O. Morand, and K.L. Reffett. 2005. Markovian equilibrium in infinite horizon economies with incomplete markets, and public policy. *Journal of Mathematical Economics*. 41, 505-544.
- L. Mirman, K. Reffett, and J. Stachurski. 2005. Some results on Markovian Economic Semigroups. *International Journal of Economic Theory*, 1, 57-72.
- O. Morand and K. Reffett, 2003. Existence and uniqueness of equilibrium in nonoptimal infinite horizon economies with unbounded growth. *Journal of Monetary Economics*, 50, 1351-1373
- M. Datta, L. Mirman, O. Morand, and K Reffett. 2002. Monotone Methods for Markovian Equilibrium in Dynamic Economies, *Annals of Operations Research*. 114, 117-144.
- M. Datta, L. Mirman, and K. Reffett. 2002. Equilibrium in distorted dynamic economies with capital and labor. *Journal of Economic Theory*. 103, 377-410
- S. Norrbin and K. Reffett. 1997. The Long-Run Stability of Disaggregated Money Demand, Journal *of Macroeconomics*, 495-507
- S. Norrbin, K. Reffett, and J. Geo. 1997. Using a VECM to test exogeneity and forecastability in the PPP condition. *Applied Financial Economics*, 85-97.
- K.Reffett. 1996. Production Based Asset Pricing Anomalies in a Monetary Economy with Transactions Costs. *Economica*. 63, 427-43.
- S. Norrbin and K. Reffett.1996. Exogeneity and Forward Rate Unbiasedness", *Journal of International Money and Finance*. 267-275.
- S. Norrbin and K. Reffett. 1996. A Substitution Test of Long-Run Money Demand, *Journal of Macroeconomics*, 18(2), 253-267.

- S. Norrbin and K. Reffett.1995. "Trade Credit and in a Monetary Economy", *Journal of Monetary Economics*, *35*, 413-430.
- S. Norrbin and K. Reffett. 1995. I(2) Representations of U.S. Money Demand. *Economics Letters*, 415-423.
- K. Reffett. 1995. Arbitrage Pricing and the stochastic inflation tax in a multisector Monetary Economy. *Journal of Economic Dynamics and Control*, 19, 569-597.
- M. Marquis and K. Reffett. 1995. Endogenous Financial Structure and the Inflation Tax in a Convex Model of Equilibrium Growth." *Bulletin of Economic Research* (July), 233-251
- M. Marquis and K. Reffett. 1995. The Inflation Tax in a Convex Model of Endogenous Growth. *Economica*, 109-122.
- M. Marquis and K. Reffett. 1994. New technology Spillovers into the Payment System" *Economic Journal*, 104, 1123-1138.
- M Marquis and K Reffett. 1992. Capital in the Payments System. Economica, 59. 351-364.
- M. Marquis and K Reffett. 1991. Real interest rates and Endogenous Growth in a Monetary Economy. *Economics Letters*, 37, 105-109.

## **Current Working Papers**

- K. Reffett. 2018. Monotone Implicit Programming. MS. ASU.
- F. Mohseninejad and K. Reffett. 2018. On Nash equilibrium in discontinuous aggregative games. MS. ASU.
- K. Reffett. 2017. Comparing Minimal State Space Markov Equilibria in OLG Models with Stochastic Production and Elastic Labor. MS. ASU.
- M. Datta, K. Reffett, L. Wozny. 2018. The determinate structure of indeterminate dynamic equilibria. MS. ASU.
- D. Pierri and K. Reffett. 2018. Characterizing dynamic equilibria in models with overproduction, borrowing, and sudden stops. MS. ASU
- L.~Balbus,~K.~Reffett,~and~L.~Wozny.~2015. Interim Bayesian Nash equilibria in large games with strategic complementarities. MS. ASU. .
- L. Balbus, K. Reffett, L. Wozny, 2014. Recursive equilibrium in economies with stochastic production and endogenous risk. MS. ASU.
- O. Morand, K. Reffett and Z. Wang. 2013. Iterated Negishi Methods for valuation equilibria in nonoptimal one-sector economies: homogeneous agent case. MS. ASU.
- K. Reffett. 2012. Constrained Dynamic Lattice Programming. MS (Current draft, July 2012, revision in

progress)

- S. Heikkila and K. Reffett. 200t6 Fixed point theorems for multivalued mappings in ordered topological spaces with applications to Game Theory, MS. ASU.
- M. Datta, L. Mirman, O. Morand, K. Reffett 2011. Recursive methods for subgame perfect Nash equilibrium in the great fishwar. MS. Arizona State University. (current draft, April 2011)
- O. Morand and K. Reffett. 2005. On the Existence and Characterization of Markovian Equilibrium in Models with Simple Non-paternalistic Altruism. MS.

## Activities at Professional Conferences (just the last 15 years):

- "Comparing Indeterminate Dynamic Equilibria: a Global Approach", SAET, June 2017, Faro Portugal
- "Equilibria in Dynamic Models with Fiscal Debt Constraints and Indeterminacy" presented at SAET, Rio De Janeiro, Brazil, July 2016.
- "Comparing Indeterminacy", European General Equilibrium Meetings, Glasgow Scotland, to be presented in June 2016.
- "Comparing Indeterminacy", the Miami Economic Theory Conference, University of Miami, Dec 2015.
- "Existence and Uniqueness of Time Consistent Markov Policies in models with Hyperbolic Discounting", SAET, Cambridge, July 2015.
- "Dual methods for comparing recursive equilibria" presented at the SAET meeting, Toyko Japan, August 2014.
- "Comparing dynamic equilibria in economies with indeterminacy" presented at the conference "Recursive methods in economic dynamics" in Glasgow, Scotland, June 2014.
- "Comparing recursive equilibrium in economies with dynamic complementarities" presented at the "Dynamic interaction in Economic Theory" conference in Paris France, December 2014.
- "Comparing Recursive equilibrium in economics with dynamic complementarities." Presented at SAET meetings in Paris, July, 2013
- "Time consistent Markov policies in dynamic economies with quasi-hyperbolic consumers". NBER conference on Mathematical Economics, October 2012, Indiana University.
- "Equilibria in large games with strategic complementarities" presented at SAET meetings, Australia, June 2012
- "On dual methods for computing recursive equilibrium in nonoptimal economies", presented at European General equilibrium meetings, June, 2012 (Exeter, UK)
- "Ordered recursive equilibrium" presented at the European meetings on Economic Growth, Marseilles, June 2012.

- "A constructive study of stochastic games with strategic complementarities", U. of Kansas Theoretical Economics Conference, Dec 2011.
- "A constructive study of stochastic games with strategic complementarities", NBER conference on Mathematical Economics, October 2011.
- "Continuous Theory of Computing Dynamic Economies", to be presented at 11th SAET conference, Faro Portugal, June 2011
- "Continuous theory of Computation for Large Stochastic Supermodular Games", to be presented at 11th SAET conference, Faro Portugal, June 2011
- "Continuous theory of Computation for Dynamic Economies", to be presented at Summer NBER meetings on General equilibrium, Vigo Spain, June 2011.
- "Nonsmooth Envelope theorems and Lattice Programming", presented at 10th SAET conference, Singapore, August 2010.
- "Partial Ordering Methods for Recursive equilibrium in infinite horizon economies with production: Bewley Models", presented at the 9th SAET meetings, Ischia Italy.

Partial Ordering Methods for Recursive equilibrium in infinite horizon economies with production: stochastic OLG models", presented at the Sorbonne Workshop in Economic Theory, Paris France, June 2009

- "Partial Ordering Methods for Recursive equilibrium in infinite horizon economies with production: Bewley Models", presented at the 9th SAET meetings, Ischia Italy.
- "Lattice methods for Markovian equilibrium in a class of dynamic games", presented at the 13th World Congress on Dynamic games, Wroclow, Poland, June 2008
- "A constructive approach to Markov perfect equilibrium in stochastic games with capital accumulation" (joint with L. Wozny), presented at the 13th World Congress on Dynamic Dynamic Games, Wroclow, Poland, June 2008
- "Mixed Monotone Recursive Methods" joint with M Datta presented at 8th SAET Meetings in Kos, Greece. June, 2007.
- "Computing Large Economies, I: Bewley models with no aggregate risk", joint with M. Datta presented in July, 2005, 7th Meeting of the Society for the Advancement of Economic Theory, Vigo Spain.
- "Mixed Monotone Recursive Methods", presented in August 2004 at PET04 in Beijing China.
- "Markovian Equilibrium in Infinite Horizon Economies with Incomplete Markets and Public Policy" joint with M. Datta, L. Mirman, and O. Morand, presented at PET04 in Beijing China, August 2004.
- "Lattice Methods for Computing Sequential Markovian equilibrium in dynamic Games" joint with M. Datta, L. Mirman, and O. Morand, presented at the World Congress in Game Theory,

Marseille France, July 2004.

- "Markovian equilibrium in Infinite Horizon Economies with Incomplete Markets and Public Policy", joint with M. Datta, L. Mirman, and O. Morand. presented at the NBER General equilibrium conference, UC-Davis, May 2004.
- "Computing Markovian Equilibrium in Large Economies: The Role of the Single Crossing Property" joint with L. Mirman, and O. Morand, presented at the SAET Meeting, Rhodes Greece, July 2003
- "Lattice Methods for Computing Markovian Equilibrium in Dynamics Games" joint with M Datta, L. Mirman, O. Morand, presented at (i) 6th SAET Meetings, Rhodes Greece, July 2003; (ii) SED Meetings, Paris France, June 2003; (iii) Society for Economics and Computation Meetings, Seattle Washington, July 2003
- "Markovian Dynamics, Growth, and Trade" joint with M Datta presented at SAET meetings, Rhodes Greece, July 2003.
- "On Lattice Methods for Dynamic Games" discussion of a paper by Y. Suzuki of Harvard, presented at the Winter Econometrics Society meetings, Washington DC, January, 2003.
- "A Qualitative Approach to Markovian Equilibrium in Infinite Horizon Economies with Capital" joint with L Mirman and O Morand presented at the Summer Meetings of the Econometric Society, Los Angeles California, June 2002.
- "Existence and Characterization of Markovian Equilibrium in Economies with Many Agents" presented at the 3<sup>rd</sup> Annual International Meetings in Public Economics, Paris France, July 2002.
- "Smooth Approximation of Markovian Equilibrium" joint with O Morand presented at the 4<sup>th</sup> Annual International Meeting in Computation in Economics and Finance, Aix-en-Provence, France, June 2002.
- "A Qualitative Approach to Markovian Equilibrium in Infinite Horizon Economies with Capital" joint with L Mirman and O Morand presented at the 7<sup>th</sup> Annual International Meetings in Macroeconomics, Paris France, June 2002.
- "An Order Theoretic Approach to Markovian equilibrium in Multiagent Economies" presented at the 7<sup>th</sup> Annual International Meetings in Macroeconomics, Paris France. June 2002.
- "Monotone Comparative Analysis for Markovian Equilibrium for Nonsmooth Infinite Horizon Economies with Taxes and Externalities" presented at the 5<sup>th</sup> Annual International Meetings of the Society for the Advancement of Economic Theory, Ischia, Italy, July 2001.
- "Order Theoretic Geometrical Methods for distorted infinite horizon economics with heterogeneous Agents and Capital" presented at that Meeting the Society for the Advancement of Economic Theory in Ischia, Italy, July 2001.
- "Lattice Methods for Nonoptimal Infinite Horizen Production Economies", presented at the 3<sup>rd</sup> Annual

Southwestern Economic Theory meetings, March 2001, CalTech.

"Existence and Uniqueness of Equilibrium in Distorted Dynamic Economies with Capital and Labor" joint with M Datta and L Mirman, presented at the World Congress of the Econometrics Society, Seattle Washington August 2000.

"Evaluating the Asset Pricing Implications of DSGE Models" presented at World Congress of the Econometrics Society, Seattle Washington August 2000.

"Existence and Uniqueness of Equilibrium in Dynamic Economies with Capital and Labor", presented at the Annual meeting of the Society for Economic Dynamics, San Jose, Costa Rica, July 2000

"Existence and Uniqueness of Equilibrium in Dynamic Economies with Capital and Labor", presented at the 5<sup>th</sup> Annual Meetings of the Society for Macrodynamics, Paris France, June 2000

"Existence and Uniqueness of equilibrium in dynamic economies with capital and labor" presented Annual Midwest Macroeconomics Meetings, University of Iowa, March 2000.

#### Grants

Dean's Award for Excellence Summer Grant, W.P. Carey School of Business: 1999, 2000, 2001, 2002, 2003, 2005, 2006, 2007. 2010, 2011, 2014, 2016

Economics Department Summer Research Grant: 2008

Florida State University Summer Grants: 1990, 1991, 1992, 1993, 1994, 1995

## **Departmental and University Service:**

Department Chair Search Committee (Dean Hillman's search): 2013

MBA Faculty Awards Committee (substitute member for decisions on awards), 2014

Personnel Committee: 1998, 1999, 2001, 2002, 2004, 2010, 2011, 2012, 2013

Recruiting Committee: 1997, 1998, 1999, 2002, 2003, 2010, 2011.

Bylaws Revision Committee: 2007-8

Graduate Committee: 2013

Ph.d Prelim Committee: 1995-2002, 2004, 2006, 2011

## Ph.D. and Post-Doc Participation

Pedram Jahangiry, 2017, Phd committee

Francesco Agostinelli, Phd committee member

Dilsat Dalkiran-Ozel, Phd thesis advisor

Suchismita Tarafdar, Phd Advisor, 2010

Zhe Wang, Phd Advisor, 2010

Lukasz Wozny, Fulbright Scholar visiting ASU, 2006-2007, University of Warsaw, Post-Doc (Advisor for

Fulbright)

Jaime Erikson,, 2007, Phd Advisor

Olivier Morand, 1997, Phd Committee Member

Rebecca Seweryn, Phd Committee Member

Sunando Sengupta, Phd Committee Member Jorge Aseff, Phd Committee Member Vincentu Corvig,, Phd, Committee Member Felix Rioja, Phd Committee Member

## **Conference Organization:**

## **Session Organizer:**

SAET meetings: 2009, Ischia Italy; 2010, Singapore; 2011, Faro Portugal; 2012, Queensland Australia; 2013; Toyko, Japan 2014, Cambridge, 2015, Rio de Janeiro, 2016, Faro, Portugal, 2017, Taipai, Taiwan, 2018

13th International Conference on Stochastic games, 2009, Wroclaw Poland.

## **Session Chair:**

SAET meetings: 2001, Ischia Italy; 2007; Kos, Greece; 2009, Ischia Italy; 2010, Singapore; 2011, Faro Portugal; 2012, Queensland Australia; 2013, Toyko, Japan 2014, Rio de Janeiro, 2016., Faro Portugal, 2017.

2<sup>nd</sup> and 3<sup>rd</sup> Sorbonne Workshop on Economic Theory (2011, 2012).

13th International Conference on Stochastic games, 2009, Wroclaw Poland.

## **Conference Organizer:**

Co-organizer (w/ Manjira Datta): ANR Nuvo Tempo Workshop in Recursive Methods in Economic Dynamics, March 7-8, 2015, Arizona State University.

## **Referee for Professional Journals**

American Economic Review

Journal of Economic Theory

Journal of Monetary Economics

Journal of Mathematical Economics

Journal of Mathematical Analysis and Applications

Journal of Fixed Point Theory

Journal of Optimization, Theory, and Analysis

Journal of Public Economic Theory

Journal of Public Economics

European Economic Review

Economic Theory

Econometrica

Journal of Economic Dynamics and Control

Journal of International Money and Finance

Journal of Macroeconomics

Journal of International Economics

Journal of Money, Credit, and Banking

Journal of Political Economy
Macrodynamics\*
Review of Economic Dynamics
Mathematics of Operations Research
Operations Research
Theoretical Economics
Dynamic Games and Applications

## **Referee for Publishers**

Springer Press Cambridge Press Oxford Press Kluwer Press Addison-Wesley Press

# **Membership in Professional Organizations:**

Society for the Advancement of Economic Theory, Econometrics Society, American Mathematical Society, Royal Economic Society