

## **Mahmoud Amin El-Gamal**

November 2011

Department of Economics – MS22  
Rice University, 6100 Main Street  
Baker Institute Building  
Houston, TX 77005

TEL: (713)348-6301; FAX: (713)348-5879

URL: <http://www.ruf.rice.edu/~elgamal>

EMAIL: [elgamal@rice.edu](mailto:elgamal@rice.edu)

### **Personal:**

Date and place of birth: January 1, 1963, Cairo, Egypt

Family Status: Married, with two sons

Citizenship: U.S.A.

### **Education:**

Ph.D (Economics) June 1988, Northwestern University

M.S. (Statistics) June 1985, Stanford University

M.A. (Economics) February 1985, The American University in Cairo

B.A. (Econ./Comp. Sc.) February 1983, The American University in Cairo

### **Employment history:**

#### **Rice University:**

(01/1998 –) Professor of Economics and Statistics

(01/1998 –) Chair of Islamic Economics, Finance & Management

(01/2010 – 12/2011) Will Clayton Fellow in International Economics,  
James A. Baker III Institute for Public Policy

(07/2008 – 06/2011) Chair, Department of Economics

*(coordinated curriculum reform, external review & strategic plan)*

#### **U.S. Department of Treasury:**

(05 – 12/2004) Scholar-in-Residence on Islamic Finance

#### **University of Wisconsin at Madison:**

(07/1996 – 06/1998) Associate Professor of Economics (with tenure)

#### **International Monetary Fund:**

(09/1995 – 06/1996) Economist, Middle East Department

*(desk economist for West Bank and Gaza)*

#### **California Institute of Technology:**

(07/1989 – 06/1996) Assistant Professor of Economics

#### **University of Rochester:**

(07/1988 – 06/1989) Assistant Professor of Economics

### **Editorial and professional activities:**

- Scientific Advisory Council, *Center for Research on Economies of the Mediterranean* (CREMed), 2011–
- Research Fellow, *Economic Research Forum* (ERF), Cairo, Egypt, 1996 –  
– Member of ERF advisory committee and chairman of fellows, 2011–
- Associate Director, Chao Center for Asian Studies, Rice University, 2009–10
- Baker Institute Rice Scholar, James Baker Institute for Public Policy, 2003 –9
- Editorial Board Member, *Review of Middle-East Economics and Finance*, 2007 –
- Testimony before U.S. Senate Committee on Banking, Housing, and Urban Affairs, July 2005: [http://banking.senate.gov/public/\\_files/gamal.pdf](http://banking.senate.gov/public/_files/gamal.pdf)
- Director: Behavioral Research Laboratory, Rice University, 2003 – 2004
- Associate Editor, *Macroeconomic Dynamics*, 1996 – 2002
- NSF instrumentation panel member, 1998
- Executive Committee Member, Economic Science Association, 1995–1997
- Associate Editor, *Journal of Economic Dynamics and Control*, 1994 – 2000
- Referee responsibilities included: *American Economic Review*, *American Political Science Review*, Cambridge University Press, *Econometrica*, *Econometric Reviews*, *Econometric Theory*, *Economic Theory*, *Feminist Economics*, *Games and Economic Behavior*, *Journal of the American Statistical Association*, *Journal of Applied Econometrics*, *Journal of Econometrics*, *Journal of Economic Behavior and Organization*, *Journal of Economic Dynamics and Control*, *Journal of Economic Literature*, *Journal of Economic Theory*, National Science Foundation, *Review of Economics and Statistics*, and *World Politics*.

### **Research grants:**

- NSF Research Grant #SBR9223701 “Imperfect Play and Incomplete Information in Multi-Stage Games: Theory and Experiments” (with Richard McKelvey and Thomas Palfrey) March 1993 – Feb. 1995
- NSF Research Grant #SBR9320497 “Sophisticated Data-Mining in Individual Choice and Market Experiments” (with David Grether) June 1994 – May 1999
- Graduate school research grant for 1997/1998, University of Wisconsin – Madison
- NSF instrumentation grant for Behavioral Research Laboratory at Rice University (with Rick Wilson and Daniel Osherson), July 1999
- Research grant to Rice University for translation of volumes 5 & 6 of Dr. Wahbah Al-Zuhayli’s *Al-Fiqh Al-Islāmī wa Adillatuh* (Islamic Jurisprudence and Its Proofs), 1999–2001

- Research grant from Kelly Day Endowment at the Baker Institute for Public Policy for the study of microfinance models for the Muslim poor, 2009-11

### **Publications – Books**

- *Oil, Dollars, Debt, and Crises: The Global Curse of Black Gold* (with Amy M. Jaffe), NY: Cambridge University Press, 2010 (ISBN-13: 9780521720700).
- *Islamic Finance: Law, Economics and Practice*, NY: Cambridge University Press, 2006 (ISBN-13: 9780521741262).
- *Financial Transactions in Islamic Jurisprudence*, – translation of Dr. Wahbah Al-Zuhayli's *Al-Fiqh Al-Islāmī wa Adillatuh*, volumes 5 and 6 – Volume 1 (725 pages), Volume 2 (784 pages), Damascus: Dar Al-Fikr, 2003, (ISBN: 1592390722).

### **Publications – Journal Articles**

- “Risk Loving after the Storm: A Bayesian-Network Study of Hurricane-Katrina Evacuees,” (with Catherine Eckel and Rick Wilson), *Journal of Economic Behavior and Organization* 69(2), 2009, pp. 110-124.
- “A Muslim’s Perspective on the Financial Crisis,” *The American Economist* LIII, 2009.
- “Incoherence of Contract-Based Islamic Financial Jurisprudence in the Age of Financial Engineering,” *Wisconsin International Law Journal* 25(4), 2008.
- “Contemporary Islamic Law and Finance: The Trade-Off Between Brand Name Distinctiveness and Convergence,” *Berkeley Journal of Middle Eastern and Islamic Law* 1(1), Spring 2008.
- “Multivariate Estimation for Operational Risk with Judicious Use of Extreme Value Theory” (with Hulusi Inanoglu and Mitch Stengel), *Journal of Operational Risk* 2(1), 2007, pp. 21-54.
- “Mutuality as an Antidote to Rent-Seeking Shari’a Arbitrage in Islamic Finance,” *Thunderbird International Business Review* 49(2), 2007, pp. 187-202.
- “Short-Memory and the PPP-Hypothesis” (with Deockhyun Ryu), *Journal of Economic Dynamics and Control* 30(3), 2006, pp. 361-91.
- “Inefficiency and Heterogeneity in Turkish Banking: 1990-2000” (with Hulusi Inanoglu), *Journal of Applied Econometrics* 20, 2005, pp. 641-664.
- “Interest and the Paradox of Contemporary Islamic Law and Finance,” *Fordham International Law Journal* 27(1), December 2003, pp. 108-149.
- “A Consistent Nonparametric Test of Stationary Ergodicity for Time Series with Applications,” (with Ian Domowitz), *Journal of Econometrics* 102, 2001, pp. 365-398.

- “A Bayesian Interpretation of Multiple Point Estimates,” *Econometric Reviews* 20(2), 2001, pp. 235-245.
- “An Economic Explication of the Prohibition of *Gharar* in Classical Islamic Jurisprudence,” *Islamic Economic Studies* 8(2), April 2001, pp. 29-58.
  - Reprinted as Chapter 3 of Iqbal, M. (ed.) *Islamic Banking and Finance: Current Developments in Theory and Practice*, Markfield, Leicester, UK: The Islamic Foundation, 2002, pp. 49-88.
- “Monetary Policy in the Arab World: An Evolving Destination, A Challenging Voyage” (with Mohamed El-Erian), *Arab Banker* XV(3), 2000.
- “Involving Islamic Banks in Central Bank Open Market Operations,” *Thunderbird International Business Review* (formerly *International Executive Journal*) 41(4,5), 1999, pp. 501-521.
- “The Survival of Islamic Banking: A Micro-Evolutionary Perspective,” *Islamic Economic Studies* 5(1,2), 1998, pp. 1-22.
  - “...” Reprinted in *Proceedings of the Second Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 1999, pp. 63-77.
- “Economical Experiments: Bayesian Efficient Experimental Design,” (with Thomas Palfrey), *International Journal of Game Theory*, 1996, no. 25, pp. 495-517.
- “Are People Bayesian? Uncovering Behavioral Strategies,” (with David Grether), *Journal of the American Statistical Association* (Applications and Case Studies) 90(432), December 1995, pp. 1137-1145.
- “Vertigo: Comparing Structural Models of Imperfect Behavior in Experimental Games” (with Thomas Palfrey), *Games and Economic Behavior* 8(2), 1995, pp. 322-348.
- “A Dynamic Migration Model with Uncertainty,” *Journal of Economic Dynamics and Control* 18(3,4), 1994, pp. 511-538.
- “Learning in Experimental Games,” (with Richard McKelvey and Thomas Palfrey), *Economic Theory*, vol. 4, no. 6, 1994, pp. 901-922.
- “A Consistent Test of Stationary-Ergodicity,” (with Ian Domowitz), *Econometric Theory* 9(4), 1993, pp. 589-601.
- “The Extraction of Information from Multiple Point Estimates,” *Nonparametric Statistics* 2, 1993, pp. 369-378.
- “Computational Issues in the Statistical Design and Analysis of Experimental Games,” (with Richard McKelvey and Thomas Palfrey), *The International Journal of Super-computer Applications* 7(3), 1993, pp. 189-200.

- “A Bayesian Sequential Experimental Study of Learning in Games” (with Richard McKelvey and Thomas Palfrey), *Journal of the American Statistical Association* 88(422), (Applications and Case Studies), 1993, pp. 428-435.
- “Bayesian Economists ... Bayesian Agents: An Alternative Approach to Optimal Learning” (with Rangarajan Sundaram), *Journal of Economic Dynamics and Control* 17, 1993, pp. 355-383.
- “Fictitious Play: A Statistical Study of Multiple Economic Experiments,” (with Richard Boylan), *Games and Economic Behavior* 5(2), 1993, 205-222.
- “NonParametric Estimation of Deterministically Chaotic Systems,” *Economic Theory*, 1991, pp.147-167.
  - “...,” Reprinted, *Chaos theory in economics: Methods, models and evidence*, Elgar Reference Collection. International Library of Critical Writings in Economics, no. 66., Cheltenham, U.K.: Elgar; distributed by Ashgate, Brookfield, Vt., 1996.

#### **Publications – Book Chapters and Papers in Edited Volumes**

- “Islamic Finance,” in Steven Durlauf and Larry Blume (eds.) *New Palgrave Dictionary of Economics Online*, Palgrave MacMillan, 28 March 2009, at [http://www.dictionaryofeconomics.com/article?id=pde2008\\_I000309](http://www.dictionaryofeconomics.com/article?id=pde2008_I000309).
- “Introduction to Islamic Finance,” in Frank J. Fabozzi (ed.) *Handbook of Finance* Volume I, NY: Wiley, 2008.
- “Islamic Securitization: Advances and Peculiarities,” in J.J. de Vries Robbé and P. Ali (eds.) *Innovations in Securitization Yearbook 2007*, NY: Kluwer, 2007, pp. 213–227.
- “Mutualization of Islamic Banks,” in M. Kabir Hassan and Mervyn K. Lewis (eds.) *Handbook of Islamic Banking*, Edward Elgar Pub, 2007.
- “A Simple *Fiqh*-and-Economics Rationale for Mutualization in Islamic Financial Intermediation”, in N. Ali (ed.), *Integrating Islamic Finance into the Mainstream: Regulation, Standardization, and Transparency*, Cambridge: Islamic Fiance Project, Islamic Legal Studies Program, Harvard University, 2007.
- “Limits and Dangers of Shari‘a Arbitrage,” *Islamic Finance: Current Legal and Regulatory Issues*, Cambridge: Islamic Fiance Project, Islamic Legal Studies Program, Harvard University, 2005, pp. 117-131.
- “An Attempt to Understand the Economic Wisdom (*Hikmah*) in the Prohibition of Riba,” in A. Thomas (ed.) *Interest in Islamic Economics: Understanding Riba*, New York: Routledge, 2005.
- “Islamic Banking in Turkey: Boon or Bane for the Financial Sector” (with Hulusi Inanoglu), *Proceedings of the Fifth Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle East Studies, Harvard University, 2004, pp. 7-20.

- “Prospects for Arab Monetary Policy in the International Financial System” (with Mohamed El-Erian), *Monetary Policy and Exchange Rate Policy: Options for the Middle East*, E. Cardoso and A. Galal (eds.), Cairo: ECES, 2002, pp. 269-295.
- “Beyond Credit: A Taxonomy of SMEs and Financing Methods for Arab Countries,” (with Nihal El-Megharbel and Hulusi Inanoglu), in Fawzy, S. (ed.) *Globalization and Firm Competitiveness in the Middle East and North African Region*, DC: World Bank, 2002, in pp. 208-232.
- “The Economics of 21<sup>st</sup>-Century Islamic Jurisprudence,” *Proceedings of the Fourth Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 2002, pp. 7-12.
- “An Introduction to Modern Islamic Economics and Finance,” *Proceedings of the Fourth Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 2002, pp. 145-150.
- “An Economic Explication of the Prohibition of *Ribā* in classical Islamic Jurisprudence,” *Proceedings of the Third Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 2000, pp. 31-44.
- “Introduction” to the Islamic Finance section of *Proceedings of the Third Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 2000, pp. 159-162.
- “Changing Decision Rules: Uncovering Behavioral Strategies Using Estimation Classification (EC),” (with David Grether), in M. Machina and B. Munier (eds.), *Beliefs, Interactions and Preferences in Decision Making*, New York: Kluwer, 1999.
- “A Monte Carlo Study of EC-Estimation in Panel Data Models with Limited Dependent Variables and Heterogeneity,” (with David Grether), in C. Hsiao, L.F. Lee, K. Lahiri and M.H. Pesaran (eds.) *Analysis of Panels and Limited Dependent Variable Models*, Cambridge: Cambridge University Press, 1999, pp. 114-135.
- “Introduction” to the Islamic Economics section of *Proceedings of the Second Harvard University Forum on Islamic Finance*, Cambridge: Center for Middle Eastern Studies, Harvard University, 1999, pp. 3-6.
- “Uncovering Heterogeneity in Behavioral Strategies,” (with David Grether), in G. Ritschard, F. Berchtold, F. Duc, and D. Zighed (eds.), *Apprentissage des Principes Naturels aux Modeles Artificiels*, Paris: Hermes, 1998, pp. 219-230.
- “Attracting Foreign Direct Investment to Arab Countries: Getting the Basics Right” (with M. El-Erian), presented at “Incentives to Foreign Direct Investment” workshop organized by IAIGC, UCTAD, and IDB, Hammamet, Tunisia, March 1997, ERF working paper #9718.
- “Investment and Growth,” (with A. Bisat, M. El-Erian, and F. Mongelli), in *Building on Progress: Reform and Growth in the Middle East and North Africa*, Washington DC: International Monetary Fund, 1996, pp.7-21.

- “Is Your Model Chaotic: A Consistent Statistical Test,” (with Ian Domowitz). In *Proceedings of the First World Congress of Nonlinear Analysts*, ed. V. Lakshmikantham, Walter de Gruyter, N.Y., 1996, pp. 2861-2871.
- “The Role of Priors in Active Bayesian Learning in the Sequential Statistical Decision Framework”. In *Maximum Entropy and Bayesian Methods*, eds. W. Grandy and L. Schick, Kluwer Academic Publishers, Dordrecht, 1991.

#### **Publications – Book Reviews**

- Review of: *Islam and Mammon: The Economic Predicament of Islamism*, by Timur Kuran, *Review of Islamic Economics*, 9(1), 2005, pp. 89-92.
- Review of: *Rationality and Dynamic Choice: Foundational Explorations*, by Edward F. McClennen, *Economics and Philosophy* 9(1), 1993, pp.165-168.
- Review of: *Topics in Advanced Econometrics: Probability Foundations*, by Phoebus Dhrymes, *Econometric Theory* 7(1), 1991, pp.125-131.

#### **Mongraphs and Selected Working Papers**

- *A Basic Guide to Contemporary Islamic Banking and Finance*, Plainfield, Indiana: Islamic Society of North America, 2000.
- “Overview of Islamic Finance,” U.S. Department of the Treasury, Office of International Affairs, Occasional Paper Series (#4), August 2006, available online at: <http://www.scribd.com/doc/1195225/US-Treasury-08042006-OccasionalPaper4>
- “Energy, Financial Contagion, and the Dollar” (with Amy Myers Jaffe), James A. Baker III Institute for Public Policy Working Paper, May 2008. At: <http://bakerinstitute.org/publications/global-energy-market-working-papers>
- “Financial Imbalances, Middle East Industrialization, and Carbon Dioxide Emissions,” James A. Baker III Institute for Public Policy Working Paper, September 2010. At: <http://www.bakerinstitute.org/publications/CarbonSolutionsEl-Gamal-Final%20with%20cover%20secured.pdf>.
- “Convergence Hypotheses and the Nonstationarity of Income-Distribution Dynamics” (with Deockhyun Ryu), September 2011. At: [http://www.ruf.rice.edu/~elgamal/files/ElGamal\\_Ryu\\_Growth.pdf](http://www.ruf.rice.edu/~elgamal/files/ElGamal_Ryu_Growth.pdf).
- “Bank-Insured RoSCA for Microfinance: Experimental Evidence in Poor Egyptian Villages” (with Mohamed El-Komi, Dean Karlan, and Adam Osman), working paper, Rice University, September 2011. At: <http://www.ruf.rice.edu/~elgamal/files/EMF092011.pdf>.

**Teaching:**

Executive education, etc.:

- Development and delivery of various modules in Energy Risk Management certificate program developed for Duke Energy (at Jones School of Management, Rice University).
- Financial risk management module in financial management course (at Jones School of Management, Rice University).
- Multiple lectures on Islamic finance and Middle East economies to Congressional staff (both house and Senate), as well as staff at various U.S. Departments and regulatory agencies.
- Multiple lectures (in Arabic) at the International Monetary Fund, on investment and growth in the Arab world; and macroeconomic monetary policy aspects of Islamic banking.
- *Ad hoc* modules on Islamic Law, Banking and Finance in Geneva, Kuwait, Dubai, and London.

Graduate and Undergraduate Courses:

- First year and advanced (second and third year) econometrics (time series, panel data, extreme value theory, Bayesian methods) (at Rochester, Caltech, U. Wisconsin at Madison, and Rice).
- Econometrics (at U. Rochester, Caltech, and U. Wisconsin at Madison).
- Principles of Financial Engineering (at Rice).
- Financial Markets and Institutions (at Rice).
- Chaotic Dynamics in Economic Systems (at Caltech).
- Ancient Egyptian History (jointly at Caltech).
- Philosophy of Social Science (jointly at Caltech).
- Statistical Decision Theory (at Caltech).
- Business Cycles (intermediate Macro; at Caltech).
- World Economic Development (at Rice).
- Introductory Economics (at Caltech).
- Experimental Economics (at Rice).
- Islamic Law, Economics and Finance (at Rice).

**Recent Ph.D Students at Rice University (Main Advisor)**

- Ibrahim Ergen (2009), Federal Reserve Bank of Richmond
- Xin Wang (2007), Duff & Phelps, LLC, San Francisco, CA.
- Deockhyun Ryu (2004), Chung-Ang University, Seoul, South Korea.
- Hulusi Inanoglu (2004), Federal Reserve Board, Washington, D.C.