Mahmoud Amin El-Gamal

November 2016

Department of Economics – MS22
Rice University, 6100 Main Street
Baker Institute Building
Houston, TX 77005
URL: http://www.ruf.rice.edu/∼elgamal
EMAIL: elgamal@rice.edu TEL: (713)348-6301

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:

Rice University:
(01/1998 – present) Professor of Economics and Statistics
(01/1998 – present) 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*)

The American University in Cairo:
(07/2014 – 06/2015) Provost and Vice President for Academic Affairs
(*Began partial transition to a Resource Center Management (RCM) Model*)

U.S. Department of Treasury:
(05 – 12/2004) Scholar-in-Residence on Islamic Finance
(*Educated governmental, legislative, and regulatory staff 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:

- Member, Middle East Advisory Group, International Monetary Fund, 9/2014 –
- Research Fellow, *Economic Research Forum* (ERF), Cairo, Egypt, 1996 –
  - Member of ERF Advisory Committee 2011–3; Scientific Committee 2013–
  - Chairman of the fellows 2011–2
- Scientific Advisory Council, *Center for Research on Economies of the Mediterranean* (CREMed), 2011–2
- Associate Director, Chao Center for Asian Studies, Rice University, 2009–10
- Baker Institute Rice Scholar, Baker Institute for Public Policy, 2003 –9, 2012–
- 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://www.banking.senate.gov/public/_cache/files/4848a750-712d-4c6d-acc2-a8ba91385433/23C6AE00CC53D93492511CC744028B5E.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*.

University Service (select duties at Rice):

- Faculty Senate
  - Chair, working group on promotions and tenure
  - Member, working group on research and scholarship
- Provost search committee
- Promotions and tenure committee
- Numerous departmental and faculty search committees

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
- NSF instrumentation grant for Behavioral Research Laboratory at Rice University (with Rick Wilson and Daniel Osherson), July 1999
- Graduate school research grant for 1997/1998, University of Wisconsin – Madison
- Research grant to Rice University for translation of volumes 5 & 6 of Dr. Wahbah Al-Zuḥaylī'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: 9780521720700).
  - Chinese Translation, Petroleum Industry Press, 2011 (ISBN: 9787502182335).
- *Islamic Finance: Law, Economics and Practice*, NY: Cambridge University Press, 2006 (ISBN: 9780521741262).
  - French Translation: *Finance Islamique: Aspects Légaux, Économiques, et Pratiques* (Jacqueline Haverals, tr.), Brussels: Groupe De Boeck s.a., 2010 (ISBN: 9782804161880).
- *Financial Transactions in Islamic Jurisprudence*, – translation of Dr. Wahbah Al-Zuḥaylī'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

- "Bank-Insured RoSCA for Microfinance: Experimental Evidence in Poor Egyptian Villages" (with Mohamed El-Komi, Dean Karlan, and Adam Osman), *Journal of Economic Behavior and Organization*, 103 (Supplement), July 2014.
- "Nonstationarity and Stochastic Stability of Relative Income Clubs" (with Deockhyun Ryu), *Review of Income and Wealth* 59(4), 2013, pp. 756-775.
- "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 Supercomputer 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

- "Nothing New Under the Sun: Tawarruq, Murabaha, and Contemporary Islamic Finance," in Frank E. Vogel and S Nazim Ali (eds.) *Contemporary Perspectives on Tawarruq*, Edward Elgar, forthcoming.
- "Mutuality, Reciprocity, and Justice within the Context of a Unified Theory of Riba and Gharar," in Ali, Nazim and S. Nisar (eds.) *Takaful and Islamic Cooperative Finance*, Edward Elgar, 2016, pp. 48–61.
- "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`.
- "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 Sharīʿa 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 (*Ḥikmah*) 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 21st-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, LF. 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: *What Is Wrong with Islamic Economics? Analysing the Present State and Future Agenda*, by M. Akram Khan, *Journal of Economic Literature*, 51(4), 2013.
- 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.

Patents

- "Systems, Methods and Computer Program Products for Adaptive Transaction Cost Estimation," (with Milan Borkovec, Ian Domowitz, Hans Heidle, Aaron Schweiger, and Konstantin Tyurin), US Patent Application No: 2012/0179,597; Serial Number 13/423,553, published: July 12, 2012.

Recent Working Papers

- "Pro-Capitalist Trends in Muslim Views: A Change-in-Change Analysis," mimeograph, Rice University, November 2016 (submitted to journal).
  https://www.dropbox.com/s/rutmgd3eskwiczr/moralrel.pdf?dl=0
- "Winter Is Coming: Controlled Conflicts and The Oil-Price Geopolitical-Risk Premium," Center for Energy Studies, Baker Institute for Public Policy, Rice University, November 2016 (submitted to journal).
  http://www.bakerinstitute.org/media/files/files/5587e74b/CES-pub-WinterComing-112116.pdf
- "Discordant Egyptian and Saudi Visions 2030 and The Forgotten Quest for MENA Economic Integration," Center for the Middle East, Baker Institute for Public Policy, Rice University, September 2016.
  http://www.bakerinstitute.org/media/files/files/b8dde1c6/CME-pub-Visions-091216.pdf
- "Bread (Rawls) + Freedom (Sen) = Social Justice? Religion and Economics in the Egyptian Spring," presented at *Festschriften* conference for Roger Owen. Volume is being edited by Don Babai, publisher to be determined, August 2015, forthcoming.
  https://www.dropbox.com/s/8happ0tj6p2jnb5/justice.pdf?dl=0
- "Oil Demand, Supply, and Medium-Term Price Prospects: A Wavelets-Based Analysis," (with Amy Jaffe), Center for Energy Studies, James A. Baker III Institute for Public Policy, June 2013. At:
  http://www.bakerinstitute.org/media/files/files/8ebeaa66/CES-pub-ElGamalJaffeOilWaveletsAnalysisWP-063013.pdf

- "Chinese Growth Prospects in the Short to Medium Term," James A. Baker III Institute for Public Policy, December 2011. At: http://www.bakerinstitute.org/media/files/Research/01b97f04/EF-pub-RiseOfChinaElGamal-120211-WEB.pdf

- "Financial Imbalances, Middle East Industrialization, and Carbon Dioxide Emissions," James A. Baker III Institute for Public Policy, September 2010. At: http://www.bakerinstitute.org/media/files/Research/a2bb6a44/CarbonSolutionsEl-Gamal-Final_with_cover_secured.pdf

- "Subpriming The Pump," (with Amy Myers Jaffe), *Foreign Policy*, October 2009.

- "Energy, Financial Contagion, and the Dollar" (with Amy Myers Jaffe), James A. Baker III Institute for Public Policy, May 2008. At: http://www.bakerinstitute.org/media/files/Research/29aedd0c/global-energy-market-working-papers.pdf

- "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

Teaching:

Executive education, etc.:

- Development and delivery of various modules in Energy Risk Management certificate program developed for Duke Energy (at Jones School, Rice University).

- Financial risk management (at Jones School, Rice University).

- Multiple lectures on Islamic finance and Middle East economies to Congressional staff (both house and Senate), and staff at various U.S. Departments and regulators.

- 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 and Finance in Geneva, Kuwait, Dubai, & London.

Graduate and Undergraduate Courses:

- Graduate 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).
- Religion, Ethics, and Economics (at Rice).
- Graduate macro (at Rice).
- Computational Economics [Numerical Methods for Economists] (at Rice).
- Risk Management in the Energy Industry (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.