

Testimony submitted to the Committee on Natural Resources, Subcommittee on Indian, Insular and Alaska Native Affairs, oversight hearing on, “The Need for the Establishment of a Puerto Rico Financial Stability and Economic Growth Authority,” Tuesday, February 2nd, 2016, 11am (embargoed until the hearing begins).

Submitted by Simon Johnson, Ronald Kurtz Professor of Entrepreneurship, MIT Sloan School of Management; Senior Fellow, Peterson Institute for International Economics; and co-founder of <http://BaselineScenario.com>.¹

A. Main Points

- 1) Puerto Rico faces a serious and immediate debt crisis – scheduled payments have been missed, the government is forced to resort to emergency liquidity measures, and arrears to suppliers are building up.
- 2) Given recent economic outcomes and likely immediate prospects, it is clear that the government and its various agencies borrowed too much. At the same time, creditors must have been aware of the risks – Puerto Rico’s economy has struggled over more than a decade and bond yields have long reflected the elevated risk of default.
- 3) The question now is how to put Puerto Rico back on the path to prosperity. A return to broad-based growth will permit rising living standards at the same time as ensuring the best possible outcomes for existing bondholders.
- 4) Puerto Rico needs a new set of economic policies – oriented towards boosting growth through reducing the cost of doing business and investing in productive opportunities.
- 5) One reaction is to demand further austerity, for example in the form of wage reductions and healthcare cuts. But residents of Puerto Rico are also U.S. citizens and they vote with their feet – the population has fallen from 3.9 million to 3.5 million in recent years as talented and energetic people have moved to Florida, Texas, and other parts of the mainland.
- 6) The situation is complicated by the fact that much of Puerto Rico’s \$70 billion debt was issued by government corporations.² Federal law allows such municipal debt to be restructured under Chapter 9 of the bankruptcy code in all 50 states but not in Puerto Rico, which is the largest U.S. territory. A protracted series of confusing legal battles and selective defaults looms. The cost of essential infrastructure services – electricity, water, sewer, transportation – will go up while quality declines.
- 7) The more that creditors demand lower living standards and higher taxes, the more the tax base (i.e., people) will simply leave the island – and bondholders will only experience greater loss.

¹ Also a member of the Federal Deposit Insurance Corporation’s Systemic Resolution Advisory Committee, the Office of Financial Research’s Financial Research Advisory Committee, and the independent Systemic Risk Council (created by Sheila Bair). All the views expressed here are mine alone. Underlined text indicates links to supplementary material; to see this, please access an electronic version of this document, e.g., at <http://BaselineScenario.com>. For important disclosures, see <http://baselinescenario.com/about/>.

² There are various estimates of the precise debt outstanding for which the government of Puerto Rico is responsible; \$70 billion is a reasonable baseline number to use for gross public debt.

- 8) Disorganized public corporation default will also make it hard for any part of the private credit system to function. As private credit becomes harder to obtain, the real economy will decline further.
- 9) Leading voices – [including at the Hoover Institution](#) – have long argued in favor of using established court-run process when large financial firms fail.³ The same logic applies here: a judge can rely on precedent and ensure fairness across creditor classes, based on seniority and the precise terms under which loans were obtained.
- 10) A judge – for example, responsible for administering a broad restructuring authority – can remove any doubt that actual insolvency in fact exists, while also ensuring that credit remains available during a restructuring. A well-designed restructuring authority can also forestall disruptive litigation and prevent holdouts by a few creditors.
- 11) For a sustained economic recovery, Puerto Rico needs private sector investment, and this requires three steps.
 - a) First, bureaucratic hurdles to job creation should be eliminated, including by using state-of-the-art technology to make government more transparent.
 - b) Second, the cost of essential inputs for industry needs to fall. Electricity on Puerto Rico is significantly more expensive than in Florida, in part because of underinvestment. More broadly, there are pressing needs for public investment to improve infrastructure and this includes great opportunities for private sector participation – but none of this will happen until the debt overhang is removed.
 - c) Third, Puerto Rico needs better fiscal management. The island’s idiosyncratic tax and expenditure system – and the lack of effective local fiscal control – has become part of the longer-term problem. Puerto Rico should, over time, become more like one of the 50 states in its fiscal relationship with the federal government. If Congress is willing to commit to that path, a reasonable quid pro quo would be strong fiscal rules – and a powerful monitoring body.
- 12) With Congressional support and pro-growth policies, Puerto Rico can attract talented Americans (and legal immigrants) to move to the island, to start companies, and to work hard. Higher education in Puerto Rico remains strong – but over 80,000 people leave to live and work elsewhere every year (while only 20,000 move in).
- 13) In part this is because the healthcare system in Puerto Rico is badly frayed. The federal government provides significantly more support to every state healthcare system through Medicaid and Medicare, despite the fact that Puerto Ricans pay the same federal payroll taxes that fund much of the Medicare program.
- 14) And hard-working low income Puerto Ricans are eligible for more robust support, including through the earned income tax credit (EITC) – a program supported by leading conservatives, such as Speaker of the House of Representatives Paul Ryan – but only if they move to one of the 50 states.
- 15) Puerto Rico does not need a bailout. It needs to reduce the cost of doing business, encourage investment, and attract people to work (and pay tax). It also needs to move away from an unsustainable fiscal deal vis-à-vis the federal government – and towards the same kind of arrangement that is available to all 50 states.

³ There is a debate about whether bankruptcy can be used to deal with the largest financial firms, because of potential systemic risk spillover effects – i.e., the failure of one firm causes other firms to fail. These concerns do not seem to apply in the case of Puerto Rico’s debt.

B. Lessons from International Experience

Puerto Rico's current situation is unusual for the United States, but there are definite recent parallels with the experience of countries around the world.

Governments borrow when times are good – or when investors are willing to bet on an improvement in economic conditions. Some of this borrowing may be directly onto the government's balance sheet, but it is also quite common to take on debt through various quasi-government agencies that have an explicit or implicit guarantee.

During a boom, investors are typically willing to ignore or play down the potential risks – and there is not enough thinking about what exactly will happen in a downside scenario.

As credit conditions tighten and expectations become more pessimistic, bond yields go up – reflecting the additional risks. As this happens, it is quite common for a different kind of investor to become involved, e.g., hedge funds. The risks of default are clearly higher but some investors still feel that the additional return justifies buying the debt.

At this stage, there is usually an active secondary market for debt – as investors who like risk buy up debt at a deep discount. Some investors may also take the view that they are acquiring more senior claims – or claims that will have advantageous treatment in the event of a restructuring.

When a country loses access to debt markets and is generally regarded as having unsustainable fiscal policies, some form of crisis ensues.

The main issue then becomes: How much will the existing debt be restructured? At the country-level there is a long-standing problem because there is no agreed mechanism (or court-run process) to determine a fair amount of debt reduction. As a result, there is reliance in the first instance on voluntary debt swaps (e.g., reducing the present value of payments but not always lowering principal). If this approach does not work, the International Monetary Fund often becomes involved – and the extent and nature of IMF support becomes part of the conversation with creditors.

IMF support comes with strings attached, including detailed monitoring of fiscal flows (and related monetary developments). However, IMF programs only work when there is substantial local buy-in. Imposing austerity from outside is never a good idea.

The viability of any IMF program (and related international assistance) always depends on getting debt payments down to a sustainable level. In this context, it is best if the payments can be made contingent on outcomes, i.e., if the economy recovers, then bondholders receive more.

A sovereign debt restructuring mechanism (SDRM) has been proposed in the past – and was given serious consideration by the George W. Bush administration. Unfortunately, we do not currently have an SDRM at the international level – and this makes debt restructuring more time consuming and harder to implement. In particular, some investors decide to hold out for full repayment and this can greatly complicate a return to capital markets for the government.

Compared with international experiences, Puerto Rico has the potential advantage that a restructuring mechanism could be put in place. Municipal bankruptcy (within the United States) is one obvious precedent, but a broader process – to include all debt – may also be considered.

In any such process, not all creditors will be treated alike – depending on the precise nature of the commitment to pay them (seniority of claim, broadly defined). The point is to have a fair, transparent, and politically legitimate process to decide on these payments. Running such a process through a judge (and the court system) has a great deal of appeal in the U.S.

All such debt restructurings are contentious and no one ends up completely happy. But creditors were taking on well-documented risks when they lent to Puerto Rico. And the federal government has long made it clear that it does not stand behind the obligations of states or state-backed municipal lenders.

The reaction of debt markets to developments in Puerto Rico so far has been muted – and this is further confirmation that investors understand the risks with this kind of lending are quite differentiated across borrowers.

The biggest danger for Puerto Rico is that there will be no comprehensive debt restructuring. Without further Congressional action, the terms on some loans will be changed, but only partially and likely not enough to return the territory to fiscal sustainability.

One potential historical parallel is Latin America during the 1980s. Following a debt crisis that began in 1982, there was a long period of stagnation – until the US Treasury helped to facilitate a restructuring at the end of the decade.

Puerto Rico could easily experience a lost decade of growth. And outcomes (in terms of economic aggregates in Puerto Rico) could even be dramatic because residents can move to the 50 states. In modern times we have never experienced this particular dimension of a debt crisis – the relatively easy exit of a population.⁴

International experience teaches us that economic recoveries are possible, even from apparently dire circumstances. Puerto Rico does not have its own currency, so recovery through devaluation is not an option. And reducing wages in Puerto Rico would induce more people to leave – this should be regarded as an important constraint on policy.

But international experience also suggests there is a sensible way forward if Congress and the government of Puerto Rico are willing to support: significant debt restructuring in a court-run process; improvement in fiscal management, including with external oversight; a reduction in the cost of doing business; and an investment-led recovery.

⁴ Some euro area countries now experience substantial out-migration, including for young and educated people. But it is harder to move within the euro area – for cultural and linguistic reasons – than it is to move from Puerto Rico to Florida, Texas, or other states.

Simon Johnson

Sloan School of Management
M.I.T.
100 Main Street, E62-420
Cambridge, MA 02142-1347
phone: (617) 290-9618 (cell)
e-mail: sjohnson@mit.edu

Peterson Institute for International Economics
1750 Massachusetts Ave, NW
Washington, DC 20036

website: <http://BaselineScenario.com>

Current and Recent Positions

- Ronald A. Kurtz (1954) Professor of Entrepreneurship, Sloan School of Management, MIT, from 2004. Also head of Global Economics and Management group, faculty chair of the Sloan Fellows Program, and member of the Executive Personnel Committee.
- Senior Fellow, Peterson Institute for International Economics, from 2008
- Member, Systemic Risk Council, founded and chaired by Sheila Bair, from 2012
- Member, Systemic Resolution Advisory Committee, Federal Deposit Insurance Corporation, from 2011.
- Member, Financial Research Advisory Committee, Office of Financial Research, US Treasury, from 2014.
- Member, Panel of Economic Advisers, Congressional Budget Office, 2009-2015
- Advisory Board Member, Institute for New Economic Thinking (INET), from 2010.
- Co-founder, <http://BaselineScenario.com>, from 2008.
- Co-director, NBER Africa project, 2009-14
- Research Associate, NBER
- Monthly columnist, Project Syndicate, from 2010.
- Weekly columnist, *Economix*, NYT.com, 2009-14.
- Regular columnist, Bloomberg and Bloomberg View, 2010-13.

Other Recent Experience

- Economic Counsellor (chief economist) and Director, Research Department, International Monetary Fund, 2007-2008.
- President, Association for Comparative Economic Studies, 2008-2009.
- Assistant Director, Research Department, International Monetary Fund, 2004-2006.
- Advisory Council, NBER Africa Project, 2007-2008. Co-founder, 2006.
- Visiting Fellow, Peterson Institute for International Economics, Washington DC, 2006-2007.
- Co-Chair, Taskforce on Latin American Reforms, Center for Global Development, 2005-2006.
- Non-resident scholar, Asian Institute of Corporate Governance, Korea University, Seoul, 2001-2003
- International Advisory Board, CASE, Warsaw, from 2002.
- Advisory Committee on Market Information, Securities and Exchange Commission, 2000-01.

Education

- Massachusetts Institute of Technology, Ph.D. (Economics), 1989.
- University of Manchester (England), M.A. (Economics) with Distinction, 1986.
- University of Oxford (England), B.A. (Economics and Politics), First Class Honours, 1984.

Previous Primary Academic Appointments

- Ronald A. Kurtz Associate Professor, Sloan School of Management, MIT, 2001-2004; with tenure from 2002.
- Michael M. Koerner '49 Career Development Associate Professor of Entrepreneurship, Sloan School of Management, MIT, 1997-2001.
- Associate Professor, Fuqua School of Business, Duke University, July 1995-June 1997.
- Director, Fuqua School of Business Center for Manager Development in St. Petersburg, Russia, January 1993-December 1995.
- Assistant Professor, Fuqua School of Business, Duke University, September 1991-June 1995.
- Junior Scholar, Harvard Academy for International and Area Studies, and Fellow, Russian Research Center, Harvard University, 1989-1991.

Other Academic Positions

- BREAD Senior Fellow, from 2007.
- Member of Centre for Economic Policy Research, Development Economics group, from 2006.
- Consultant, Research Department, IMF, 2006-2007.
- Program co-organizer, NBER workshop on growth in Africa, April 2006. Lead organizer, NBER proposal for Africa working group, 2006-2007 and 2008-.
- Associate Editor, *Journal of Financial Economics*, 2004-2011
- Associate Editor, *The Review of Economics and Statistics*, 2003-
- Editorial Board, *Journal of Comparative Economics*, January 2007-
- Editorial Board, *Cliometrica*, 2007-
- Research Associate, NBER, 2005- (Faculty Research Fellow from 2000-2005), corporate finance, and international finance and macroeconomics groups.
- Affiliate, BREAD (Bureau for Research in Economic Analysis of Development)
- Research Fellow, CEPR (Institutions and Economic Performance)
- Program co-chair, NBER conference on the economic crisis in Indonesia, September 2000.
- Team Leader, Russian European Center for Economic Policy (RECEP), Moscow, 1997-1999.
- Research Associate, Center for Economic Performance, London School of Economics, 1996-1998.
- Visiting Scholar, Sloan School of Management, MIT, July 1996-December 1996. (Visiting Associate Professor, Sloan School of Management, MIT, January 1997-June 1997.)
- Davidson Institute Research Fellow, The William Davidson Institute at the University of Michigan Business School, 1997-present.
- Research Fellow, Ostekonomiska Institutet, Stockholm School of Economics, 1995-96.
- Visiting Professor, Central European University, Prague, August 1995.
- Research Associate, Institute for Economic Analysis, Moscow, June 1994-January 1995.

- Visiting Scholar, Osteconomiska Institutet, Stockholm School of Economics, September-December 1994.
- Visiting Professor, INSEAD (Institut Européen d'Administration) and the Euro-Asia Center, Fontainebleau, France. Taught MBA students June 1992 and executives in 1993-98.

Other Activities

- External Examiner/Assessor, PhD thesis, LSE, 2005; London Business School, 1999; CERGE (Charles University), 1999.
- Adviser, Analysis Group-Economics, 2000-2002; and Brattle Group, 1999-2002.
- Senior Associate, Cambridge Energy Research Associates, 1998-99.
- Editor, quarterly edition of *Russian Economic Trends*, 1997-98.
- Consultant, Salomon Brothers International, 1997-98.
- Consultant, The World Bank, UNDP, various dates.
- Senior Adviser to the Minister of Economics in Ukraine, August-December 1994.
- Consultant, in association with three Harvard University projects, to reform groups in the Soviet Union, June 1990-August 1999; to the Senior Vice President of the National Bank of Poland, January-April 1990.

Publications

1. Journal Articles

“The Value of Political Connections in Turbulent Times,” with Daron Acemoglu, Amir Kermani, James Kwak, and Todd Mitton. *Journal of Financial Economics*, forthcoming.

“Disease and Development: A Reply to Bloom, Canning, and Fink,” with Daron Acemoglu. *Journal of Political Economy*, December 2014, volume 122, number 6, pages 1367-1375.

“Ending ‘Too Big To Fail’: Government Promises Versus Investor Perceptions,” with Todd Gormley and Changyong Rhee. *Review of Finance*, April 2014.

"Forty Years of Leverage: What Have We Learned about Sovereign Debt?" With Peter Boone, *American Economic Review*, 104(5), papers and proceedings, May 2014: 266-71.

“Is Newer Better? Penn World Tables Revisions and Their Impact on Growth Estimates,” with William Larson, Chris Papageorgiou, and Arvind Subramanian. *Journal of Monetary Economics*, Volume 60, Issue 2, March 2013, Pages 255–274.

“Hither Thou Shall Come But No Further: ‘Reply to The Colonial Origins of Comparative Development: An Empirical Investigation; Comment,’” *American Economic Review*, October 2012.

“The Consequences of Radical Reform: The French Revolution,” with Daron Acemoglu, Davide Cantoni, and James Robinson, *American Economic Review*, vol. 101(7), pp. 3286–3307, December 2011.

“Re-evaluating the Modernization Hypothesis,” with Daron Acemoglu, James Robinson, and Pierre Yared. *Journal of Monetary Economics*, vol. 56(8), pages 1043-1058, November 2009.

“Determinants of Vertical Integration: Financial Development and Contracting Costs,” with Daron Acemoglu and Todd Mitton. *Journal of Finance*, Volume 64, Pages 1251-1290, 2009.

“Mixing Family with Business,” with Marianne Bertrand, Krislert Samphantharak, and Antoinette Schoar. *Journal of Financial Economics*, 2008.

“When Does Policy Reform Work? The Case of Central Bank Independence,” *Brookings Papers on Economic Activity*, with Daron Acemoglu, Pablo Querubin, and James Robinson, 2008.

“Income and Democracy,” with Daron Acemoglu, James Robinson, and Pierre Yared, *American Economic Review*, 2008.

“Disease and Development: The Effect of Life Expectancy on Growth,” with Daron Acemoglu, *Journal of Political Economy*, 2007.

“Unbundling Institutions,” with Daron Acemoglu, *Journal of Political Economy*, October 2005.

“The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth,” with Daron Acemoglu and James Robinson, *American Economic Review*, June 2005. Republished in *Innovation and Entrepreneurship*, edited by David B. Audretsch, Oliver Falck, and Stephan Heblich, Edward Elgar, 2009

“From Education to Democracy?” With Daron Acemoglu, James Robinson, and Pierre Yared, *American Economic Review (papers and proceedings)*, May 2005.

“Propping and Tunnelling,” with Eric Friedman and Todd Mitton, *Journal of Comparative Economics*, September 2003.

“The Emergence of Temporal Correlations in a Study of Global Economic Interdependence” with Eric Friedman and Adam Landsberg, *Quantitative Finance*, 3, 2003, pp.296-305.

“Cronyism and Capital Controls: Evidence from Malaysia,” with Todd Mitton, *Journal of Financial Economics*, Volume 67, No. 2, February 2003, pp.351-382.

“Disease and Development in Historical Perspective,” with Daron Acemoglu and James Robinson, *Journal of the European Economic Association (papers and proceedings)*, 2003.

“Institutional Causes, Macroeconomic Symptoms: Volatility, Crises and Growth,” with Daron Acemoglu, Jim Robinson, and Yunyong Thaicharoen, *Journal of Monetary Economics*, 50(1), January, 2003, pp.49-123.

“Property Rights and Finance,” with John McMillan and Chris Woodruff, *American Economic Review*, December 2002, Volume 92, Number 5, pp.1335-1356. Republished in volume edited by Thorsten Beck, Edward Elgar, 2010.

“Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution,” with Daron Acemoglu and Jim Robinson, *Quarterly Journal of Economics*, November 2002, Volume CXVII, Issue 4, pp.1231-1294.

“The Colonial Origins of Comparative Development: An Empirical Investigation,” with Daron Acemoglu and Jim Robinson, *American Economic Review*, December 2001, volume 91, Number 5, pp.1369-1401.

“Courts and Relational Contracts,” with John McMillan and Chris Woodruff, *Journal of Law, Economics and Organization*, vol. 18 (1), April 2002: pp.221-277.

“Coase versus the Coasians,” with Edward Glaeser and Andrei Shleifer, *Quarterly Journal of Economics*, August 2001, Volume CXVI, Issue 3, pp.853-900.

“Escaping the Under-Reform Trap,” with Anders Aslund and Peter Boone, *IMF Staff Papers*, Volume 48, 2001, pp.88-108.

“Corporate Governance in the Asian Financial Crisis” with Peter Boone, Alasdair Breach, and Eric Friedman, *Journal of Financial Economics*, Volume 58, Nos. 1-2, October/November 2000, pp.141-186.

“Tunneling,” with Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. *American Economic Review (Papers and Proceedings)*, Vol.90, no.2, pp.22-27, May 2000. Reprinted in Klaus J. Hopt and Eddy Wymeersch editors, *Capital Markets and Company Law*, Oxford University Press, February 2003. Also reprinted in *Governance and Expropriation*, edited by Larry H.P. Lang, Edward Elgar, 2005.

“Why do Firms Hide? Bribes and Unofficial Activity After Communism,” with Daniel Kaufmann, John McMillan and Chris Woodruff, *Journal of Public Economics*, 76, 2000, 3: pp.495-520.

“Dodging the Grabbing Hand: Determinants of Unofficial Activity in 69 countries” with Eric Friedman, Daniel Kaufmann and Pablo Zoido-Lobaton, *Journal of Public Economics*, 76, 3: 2000, pp. 459-493.

“Entrepreneurs and the Ordering of Institutional Reform: Poland, Slovakia, Romania, Russia, and Ukraine Compared,” with John McMillan and Christopher Woodruff, *Economics of Transition* 8 (1), 2000, pp.1-36.

“Regulatory Discretion and Corruption,” with Daniel Kaufmann and Pablo Zoido-Lobaton, *American Economic Review (Papers and Proceedings)*, May 1998, 88(2), pp. 387-92.

"The Unofficial Economy in Transition" with Daniel Kaufmann and Andrei Shleifer, *Brookings Papers on Economic Activity*, Fall 1997.

"On Reform Intensity Under Uncertainty," with Panos Kouvelis and Vikas Sinha, *Journal of Comparative Economics*, December 1997.

"Dynamic Monotonicity and Comparative Statics for Real Options" with Eric Friedman, *Journal of Economic Theory*, Spring 1997.

"Complementarities and Economic Reform" with Eric Friedman, *Economics of Transition*, Volume 4 (2), pp.319-329, 1996.

"How to Stabilize: Lessons from Post-Communist Countries" with Anders Aslund and Peter Boone, *Brookings Papers on Economic Activity*, 1996:1, pp.217-313. Translated into Polish and published by CASE, Warsaw.

"Complementarities and the Managerial Challenges of State Enterprise Restructuring: Evidence from Two Shipyards" with Gary Loveman and David Kotchen, *Economics of Transition*, Volume 4(1), pp.31-42, 1996.

"How One Polish Shipyard Became a Market Competitor" with Gary Loveman, *Harvard Business Review*, November/December 1995.

"Starting Over: Poland After Communism" with Gary Loveman, *Harvard Business Review*, March/April 1995.

"Private Sector Development in Poland: Shock Therapy and Starting Over" with Gary Loveman, *Comparative Economic Studies*, Vol. 36, No. 4, Winter 1994.

"The Macroeconomics of NEP" with Peter Temin, *Economic History Review*, Vol. 46, No. 4, November 1993.

"Managerial Strategies for Spontaneous Privatization" with Heidi Kroll, *Soviet Economy*, Vol. 7, No. 4, 1991. (Reprinted in Italian as "Strategie manageriali per la privatizzazione spontanea," in *Europa Europe*, 3, 1993, anno II.)

"Did Socialism Fail in Poland?" *Comparative Economic Studies*, Vol. 33, No. 3, Fall 1991.

2. Books

White House Burning: The Founding Fathers, The National Debt, and Why It Matters To You, with James Kwak, Pantheon Books, New York, April 2012. Wall Street Journal Business Bestseller. Paperback edition published in 2013.

13 Bankers: The Wall Street Takeover and The Next Financial Meltdown, with James Kwak, Pantheon Books, New York, March 2010. Reached #5 on New York Times bestseller list; 5 weeks overall in the top 15. Paperback edition published in January 2011.

Macrofinancial Linkages: Trends, Crises, and Policies (editor), with Christopher Crowe, Jonathan D. Ostry, and Jeromin Zettelmeyer, International Monetary Fund, Washington DC, 2010.

Starting Over in Eastern Europe: Entrepreneurship and Economic Renewal, with Gary Loveman, Harvard Business School Press, 1995.

Managing Business Enterprises After Communism, with Gary Loveman and David Kotchen, Harvard Business School Publishing, 1994.

The Collected Works of Franco Modigliani, Volumes 4 and 5 (editor), MIT Press, 1989.

3. Other Publications (selected)

“The Surprisingly Dire Situation of Children’s Education in Rural West Africa: Results from the CREO study in Guinea-Bissau (Comprehensive Review of Education Outcomes),” with Peter Boone, Ila Fazzio, Kameshwari Jandhyala, Chitra Jayant, Gangadhar Jayanty, Vimala Ramachandrin, Filipa Silva, and Zhaoguo Zhan. Paper commissioned by NBER Africa Project. Accepted for publication in conference volume, forthcoming 2016. NBER working paper.

“Systemic Lack of Prudence in Wealthy Countries,” with Peter Boone, in *Financial Systems at the Crossroads*, edited by Wing Woo, Yingli Pan, Jeffrey D. Sachs, and Junhui Qian, 2013 in Chinese and June 2014 in English.

“Policy Advice and Actions during the Asian and Global Financial Crises,” with James Kwak, published in a joint PIIE-ADB volume, 2013.

“Financial Services in the Transatlantic Trade and Investment Partnership,” with Jeffrey Schott, Peterson Institute for International Economics, Policy Brief, October 2013.

“Governing the Federal Reserve After the Dodd-Frank Act,” with Peter Conti-Brown, Peterson Institute for International Economics, Policy Brief, October 2013.

“The European Crisis Deepens,” With Peter Boone, Peterson Institute for International Economics, Policy Brief, January 2012.

“Europe on the Brink.” With Peter Boone, Peterson Institute for International Economics, Policy Brief, July 2011.

“Will the politics of global moral hazard sink us again?” With Peter Boone, Chapter 10 in “The Future of Finance: The LSE Report”, Center for Economic Performance, London School of

Economics, July 2010. An earlier version appeared in *Make Markets Be Markets*, Roosevelt Institute, March 2010.

“Shooting Banks,” *The New Republic*, with Peter Boone February 2010.

“The Next Financial Crisis – It’s Coming and We Just Made It Worse,” *The New Republic*, September 2009.

“The Quiet Coup,” *Atlantic Monthly*, May 2009; 1.3 million page views

“The Prospects for Sustained Growth in Africa: Benchmarking the Constraints,” with Jonathan Ostry and Arvind Subramanian. *IMF Staff Papers*, August.

“From Ancien Regime to Capitalism: The Spread of the French Revolution as a Natural Experiment,” with Daron Acemoglu, Davide Cantoni, and James Robinson, in *Natural Experiments of History*, edited by Jared Diamond and James Robinson, The Belknap Press of Harvard University Press, Cambridge MA, 2010.

“Breaking Out of the Pocket: Do Health Interventions Work? Which and in What Sense?” With Peter Boone. Chapter 3, pp. 55-90, in *What Works in Development? Thinking Big and Thinking Small*, edited by Jessica Cohen and Bill Easterly, Brookings Institution Press, Washington DC 2009.

“Comment” on *When Does Improving Health Raise GDP by Ashraf, Lester, and Weil?*” NBER Macroeconomics Annual, 2008.

“Helping Reforms Deliver Growth in Latin America,” co-editor of a Task Force report, with Liliana Rojas-Suarez, Center for Global Development, Washington DC, 2006.

“Levers for Growth,” with Jonathan Ostry and Arvind Subramanian, *Finance and Development*, March 2006, pp.28-31.

“Malaysian Capital Controls: An Assessment,” with Kalpana Kochhar, Todd Mitton, and Natalia Tamirisa. In NBER book on capital controls, edited by Sebastian Edwards.

“Understanding Prosperity and Poverty: Geography, Institutions, and the Reversal of Fortune,” with Daron Acemoglu and James Robinson, Chapter 2 in *Understanding Poverty*, edited by Abhijit Banerjee, Roland Benabou, and Dilip Mookherjee, Oxford University Press, 2006.

“Institutions as the Fundamental Cause of Long-Run Growth,” with Daron Acemoglu and James Robinson, chapter 6, in *Handbook of Economic Growth*, volume 1, part A, edited by Philippe Aghion and Steven Durlauf, 2005, pp. 385-472.

“Small Enterprises and Economic Policy” with Anders Aslund. Carnegie Endowment for International Peace, Discussion Paper, 2004.

Review of “Corporate Financing and Governance in Japan: The Road to the Future,” by Takeo Hoshi and Anil Kashyap, *Journal of International Economics*, Volume 60, Issue 2, pages 501-503, 2002.

“Institutions, Corporate Governance, and Crises,” with Daron Acemoglu, World Economic Forum/Davos volume edited by Peter Cornelius and Bruce Kogut, 2003.

“Institutions, Volatility, and Crises,” with Daron Acemoglu and James Robinson, in NBER/EASE volume edited by Takatoshi Ito and Andrew Rose, 2003.

“Coase and the Reform of Securities Markets,” *International Economic Journal*, Volume 16, Number 1, Spring 2002, pp.1-20.

“Privatization and Corporate Governance,” with Andrei Shleifer. In *Privatization, Corporate Governance and Transition Economies, East Asia Seminar on Economics Volume 12*, edited by Takatoshi Ito and Anne O. Krueger, The University of Chicago Press (for the NBER), 2003.

“An Africa Success Story: Botswana,” with Daron Acemoglu and Jim Robinson. Chapter in *In Search of Prosperity: Analytical Development Narratives*, edited by Dani Rodrik, Princeton University Press, 2003.

“Coase and the Reform of Securities Markets,” in *Building an Infrastructure for Financial Stability*, edited by Eric S. Rosengren and John S. Jordan, Federal Reserve Bank of Boston, Conference Series No. 44, June 2000, pp.187-204.

“Coase and Corporate Governance in Latin America,” with Andrei Shleifer, in *Abante: Studies in Business Management (Chile)*, Vol. 2, October 1999/April 2000, No. 2, pp.113-131.

“Observations on Corporate Governance in the Asian Crisis,” in *Global Financial Crises: Lessons from Recent Events* edited by Joseph R. Bisignano, William C. Hunter, and George G. Kaufman, Kluwer Academic Publishers, 2000, Boston/Dordrecht/London, pp.297-306.

“Institutions and the Underground Economy,” with Daniel Kaufmann. In Oleh Havrylyshyn and Saleh M. Nsouli, eds. 2001. *A Decade of Transition: Achievements and Challenges*, IMF Institute, International Monetary Fund, Washington DC, pp.212-228.

“Institutions and Prospects for a Currency Board in Russia: Perspectives on a Deepening Crisis” (with Peter Boone and Alasdair Breach), *Post-Soviet Geography and Economics*, September 1998.

“Formal Employment and Survival Strategies After Communism” with Daniel Kaufmann and Oleg Ustenko, in *Transforming Post-Communist Political Economies*, edited by Joan M. Nelson, Charles Tilly, and Lee Walker, National Academy of Sciences, 1997.

"The Acquisition of Private Property Rights in Ukrainian Agriculture" with Zanny Minton Beddoes, in *Reforming Asian Socialism: The Growth of Market Institutions*, edited by John McMillan and Barry Naughton, Ann Arbor, University of Michigan Press, 1996.

"Employment and Unemployment After Communism," in *Economic Transition in Eastern Europe and Russia: Realities of Reform*, edited by Edward Lazear, Hoover Institution Press, 1995.

"Poland: The Political Economy of Shock Therapy" with Marzena Kowalska, in *Voting for Reform*, edited by Stephan Haggard and Steven B. Webb, Oxford University Press, 1994.

"Private Business in Eastern Europe," in *The Transition in Eastern Europe, Volume 2: Restructuring*, edited by Olivier J. Blanchard, Kenneth A. Froot and Jeffrey D. Sachs, University of Chicago Press, 1994.

"New Commercial Banks in the Former Soviet Union. How Do They Operate?" with Heidi Kroll and Mark Horton, in *Changing the Economic System in Russia*, edited by Anders Aslund and Richard Layard, Pinter Publishers, London, 1993.

4. Unpublished papers

"Remaking Political Connections," with Sung Wook Joh and Se-Jik Kim.

"Health and Social Conflict," with Daron Acemoglu and Leopoldo Fergusson. Preliminary presentations.

5. Projects (papers in progress)

"Guarantee: The Making of Modern Finance," with Peter Boone, book project.

"Settler Mortality: New Data," with Daron Acemoglu and Karti Subramanian.