NOTES

PREFACE TO THE PAPERBACK EDITION


**CHAPTER 1. MEGA: MAKE ECONOMICS GREAT AGAIN**


7. This survey was done in collaboration with Stefanie Stantcheva and is described in Abhijit Banerjee, Esther Duflo, and Stefanie Stantcheva, “Me and Everyone Else: Do People Think Like Economists?,” MIMEO, Massachusetts Institute of Technology, 2019.


**CHAPTER 2. FROM THE MOUTH OF THE SHARK**


5. Alesina, Miano, and Stantcheva, “Immigration and Redistribution.”


16. Ibid.


22. Ibid.


31. Foged and Peri, “Immigrants’ Effect on Native Workers.”
39. “For the conversion of his money into capital, therefore, the owner of money must meet in the market with the free labourer, free in the double sense, that as a free man he can dispose of his labour-power as his own commodity, and that on the other hand he has no other commodity for sale, is..."
short of everything necessary for the realisation of his labour-power.” From Karl Marx, *Das Kapital* (Hamburg: Verlag von Otto Meissner, 1867).


51. Referees and editors apparently found Akerlof’s paper difficult to understand. Essentially, the kind of circular reasoning that explains the unraveling requires a proper mathematical exposition to make sure it is watertight,
and in 1970 this particular style of mathematical argumentation was unfamiliar to most economists. Therefore, it took some time before a journal ventured to publish it. But once published, it became an instant classic and has remained one of the most influential papers of all time. The kind of mathematics it used, which is an application of the branch of applied math called “game theory,” is now taught to economics undergraduates.

52. Banerjee, Enevoldsen, Pande, and Walton, “Information as an Incentive.”


68. We will return to the idea of these motivated beliefs in chapter 4. For a reference, see Roland Bénabou and Jean Tirole, “Mindful Economics: The Production, Consumption, and Value of Beliefs,” *Journal of Economic Perspectives* 30, no. 3 (2016): 141–64.


74. Ganong and Shoag, “Why Has Regional Income Convergence in the U.S. Declined?"


76. This example is worked out by Ganong and Shoag in Peter Ganong and Daniel Shoag, “Why Has Regional Income Convergence in the U.S. Declined?"


80. Glaeser, Triumph of the City.


CHAPTER 3. THE PAINS FROM TRADE


4. Ibid.


6. Ibid.
13. Of course, the trade optimists, among them Jagdish Bhagwati, T. N. Srinivasan, and their followers make the argument that pre-1991 growth was about to grind to a halt and the bailout and trade liberalization saved it.
20. Topalova, “Factor Immobility and Regional Impacts of Trade Liberalization.”


28. Topalova, “Factor Immobility and Regional Impacts of Trade Liberalization.”


52. Autor, Dorn, and Hanson, “The China Syndrome.”


62. Costinot and Rodríguez-Clare, “The US Gains from Trade.”


72. Asher and Novosad, “Rural Roads and Local Economic Development.”


75. Ibid.


CHAPTER 4. LIKES, WANTS, AND NEEDS


9. See, for example, E. R. Prabhakar Somanathan and Bhupendra Singh Mehta, “Decentralization for Cost-Effective Conservation,” *Proceedings of the National Academy of Sciences* 106, no. 11 (2009): 4143–47; J. M. Baland, P. Bardhan, S. Das, and D. Mookherjee, “Forests to the People: Decentralization and Forest Degradation in the Indian Himalayas,” *World Development* 38, no. 11 (2010): 1642–56. This does not mean community ownership always works. Indeed, even the theory makes it clear that it may not. Suppose for example, that you expect other people in the community will not always play by the rules. The temptation for you to cheat is then stronger, since with some other people overgrazing, the common pasture will not be that great; therefore, the threat of exclusion from it will be less daunting. In fact, the evidence on whether communally owned forest areas are less deforested is not overwhelming.


22. According to a study by the Stanford Center on Poverty and Inequality: “At the end of 2015, a full 9.1 percent of young black men (ages 20–34) were incarcerated, a rate that is 5.7 times that of young white men (1.6%). Fully 10 percent of black children had an incarcerated parent in 2015, compared with 3.6 percent of Hispanic children and 1.7 percent of white children.” Becky Pettit and Bryan Sykes, “State of the Union 2017: Incarceration,” Stanford Center on Poverty and Inequality.

23. In this sense, African Americans are more like Muslims in India than the scheduled castes. Muslims are simultaneously falling behind the Hindu population in economic terms and are the target of rising levels of violence from the majority Hindu population.


28. Ibid.


32. Ibid.


41. Ibid.


72. Levi Boxell, Matthew Gentzkow, and Jesse Shapiro, “Greater Internet Use Is Not Associated with Faster Growth in Political Polarization among US


74. Ibid.


85. Matthew Lowe, “Types of Contact: A Field Experiment on Collaborative and Adversarial Caste Integration,” OSF, last updated on May 29, 2019, osf.io/u2d9x.


88. The French system of public housing is not a lottery, but in principle it should work to spread people around: a commission meets at the *departement* level (similar to a county) to allocate vacant units to applicant families across the entire *departement*, based on family size and other priority criteria, but not race. But subsidized housing in nice neighborhoods is so lucrative that the incentive to cheat is very powerful. In the mid-1990s, allocation of housing units in Paris was exposed as a key mechanism of clientelism, put in place and maintained by Jacques Chirac (the mayor of Paris, and later the president of France). Yann Algan, Camille Hémet, and David D. Laitin, “The Social Effects of Ethnic Diversity at the Local Level: A Natural Experiment with Exogenous Residential Allocation,” *Journal of Political Economy* 124, no. 3 (2016): 696–733.


**CHAPTER 5. THE END OF GROWTH?**


on the Maddison project data base at https://www.rug.nl/ggdc/historical

19. For the interested reader who decides to peruse this literature, it will be useful to know that economists call well-being “welfare” (by which they are not referring to welfare programs). So this is what they would call a welfare calculation.


21. Ibid.


31. Karl Marx, *Das Kapital* (Hamburg: Verlag von Otto Meisner, 1867). Fortunately for capitalism, there was a misstep in Marx’s logic. As Solow pointed out, when the return on capital goes down, the speed of accumulation also goes down. Therefore, unless capitalists start saving more precisely when it is less rewarding to do so, accumulation will eventually slow down and the rate of profit will stop falling.

32. Julia Carrie, “Amazon Posts Record 2.5bn Profit Fueled by Ad and Cloud Business,” *Guardian*, July 26, 2018. Part of the profits come from Amazon selling cloud storage. But cloud storage is itself a by-product of the excess capacity on the cloud they knew they had to build to remain the dominant market maker. So Amazon cloud business is part and parcel of their gigantic size.


41. Of course, the question being asked in New York was not about the size of the gains (everybody agreed there would be some) but why Amazon was allowed to keep so much of it for themselves. After all, Alexandria offered much less, and Boston nothing at all (but then Boston did not win).


44. Ten percent growth over the past decade will raise growth over the next decade by 20 percent of 10 percent, which is 2 percent. This will create additional growth of 20 percent of 2 percent, or 0.4 percent, over the following decade and so on. It is evident the additional rounds of growth are small to start with and get smaller pretty fast.


50. The Wikipedia entry for Schumpeter reads thus: “Schumpeter claimed that he had set himself three goals in life: to be the greatest economist in the world, to be the best horseman in all of Austria and the greatest lover in all of Vienna. He said he had reached two of his goals, but he never said which two, although he is reported to have said that there were too many fine horsemen in Austria for him to succeed in all his aspirations.” See https://en.wikipedia.org/wiki/Joseph_Schumpeter.


64. David Autor, David Dorn, Lawrence F. Katz, Christina Patterson,


124. In fact, the under-five child mortality in 2017 was only 8.8 deaths per 1,000 live births, much lower than in Guatemala (27.6), but also quite similar to that in the United States (6.6). “Mortality Rate, under-5 (per 1,000 Live Births),” World Bank Data, accessed April 15, 2019, https://data.worldbank.org/indicator/SH.DYN.MORT?end=2017&locations=GT-LK-US&start=2009.


132. William Easterly, “Looks like @JeffDSachs got it more right than I did on effectiveness of mass bed net distribution to fight malaria in Africa,” tweet, August 18, 2017, 11:04 a.m.

CHAPTER 6. IN HOT WATER


2. As the October 2018 report of the IPCC states, “Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.”
3. CO2 equivalent emissions refer to the emissions of greenhouse gas (CO2, methane, etc.) expressed in a common unit by converting amounts of other gases to the equivalent amount of CO2 with the same effect on global warming. For example, 1 million metric tonnes of methane represents 25 million metric CO2e.


14. Nihar Shah, Max Wei, Virginie Letschert, and Amol Phadke, “Ben-


26. In Bangladesh, a study found that providing incentives to wash your hands for before meals for a few weeks increases handwashing even after the incentives are removed. Furthermore, people warned that they would get incentives in the future started washing their hands in anticipation of the program, to prepare themselves. Hussam, Reshmaan, Atonu Rabbani, Giovanni Regianni, and Natalia Rigol, “Habit Formation and Rational Addiction: A Field Experiment in Handwashing,” Harvard Business School BGIE Unit Working Paper 18-030, 2017.


34. A short-lived “odd-even” restriction, where cars with license plates ending in odd and even numbers were allowed out on alternate days led to a decline in particulate matter, but was brought down by a cabal of irate elites and environmental experts with “better” plans. Michael Greenstone, Santosh Harish, Rohini Pande, and Anant Sudarshan, “The Solvable Challenge of Air Pollution in India,” in India Policy Forum volume conference volume 2017 (New Delhi: Sage Publications, 2017).


**CHAPTER 7. PLAYER PIANO**


19. Ibid.

20. Ibid.


22. Jean Tirole and Olivier Blanchard, for example, have argued that the uncertainty in the outcome of a firing could in fact exacerbate unemployment. (David Blanchard and Olivier Tirole, “The Optimal Design of Unemployment Insurance and Employment Protection. A First Pass,” NBER Working Paper 10443, 2004.) However, it does not appear that European countries that have loosened employment protection have lower unemployment. Overall, there seems to be no relationship. Giuseppe Bertola, “Labor Market Regulations: Motives, Measures, Effects,” International Labor Organization, Conditions of Work and Employment Series No. 21, 2009.


27. See “UK Public Spending Since 1900,” https://www.ukpublicspending.co.uk/past_spending.


68. Ibid.

69. The other part is that investment income is taxed at a lower rate anyway. An alternative to a wealth tax would be to tax investment income even when it is not distributed, but it is technically very difficult to account for that income.


80. Ibid.

81. Ibid.

82. Anne Case and Angus Deaton, “Rising Midlife Morbidity and Mortality, US Whites,” Proceedings of the National Academy of Sciences, December 2015, 112 (49) 15078-15083; DOI:10.1073/pnas.1518393112; Anne


CHAPTER 8. LEGIT.GOV


14. An often-cited stock quote of Milton Friedman, who was an inspiration to generations of economists, especially those on the right, popular on twitters and found in all quote repositories said: “The great achievements of civilization have not come from government bureaus.” He went on to add: “Einstein didn’t construct his theory under order from a bureaucrat.” The choice of the example is odd. Einstein was a bureaucrat (in the Swiss Patent Office) when he did his early research, and had he not actually delivered what he delivered, he would be a prime example of waste in government. Milton Friedman Quotes, BrainyQuote.com, BrainyMedia Inc., 2019, accessed June 18, 2019, https://www.brainyquote.com/quotes/milton_friedman_412621.


17. Luc Behaghel, Bruno Crépon, and Marc Gurgand, “Private and Public Provision of Counseling to Job Seekers: Evidence from a Large Controlled


CHAPTER 9. CASH AND CARE


15. Ibid.

16. For the reader who wants more, this literature is summarized in several books: James P. Ziliak, “Temporary Assistance for Needy Families,” in Economics of Means-Tested Transfer Programs in the United States, vol. 1, ed. Robert A. Moffitt (National Bureau of Economic Research and University


36. Ibid.


73. All the references to Heckman’s research on the long-term impact of preschool education can be found at https://heckmanequation.org/. Among other references, see Jorge Luis García, James J. Heckman, Duncan Ermini Leaf, and María José Prados, “The Life-Cycle Benefits of an Influential Early Childhood Program,” NBER Working Paper 22993, 2016.


92. Ibid.


CONCLUSION: GOOD AND BAD ECONOMICS

ACKNOWLEDGMENTS

All books are the product of many minds but this one more so than most. Chiki Sarkar encouraged us to pursue this project before we had any idea of where we were headed. Her enthusiasm, lively intelligence, and faith in our abilities led us and supported us throughout this project. A little bit later in the project Andrew Wylie joined in. The backing of his vast experience gave us the confidence to proceed. Neel Mukherjee read the entire manuscript in its first, raw, version and gave us direction, style advice, and above all reassurance that this was a book worth writing and perhaps even reading. Maddie McKelway did extraordinary work to ensure that every fact in the manuscript was correctly checked and cited, and that every sentence made (at least some) sense. Clive Priddle, as with our previous book, understood exactly where we were trying to go, often before we did so ourselves. His edits made this a book.

In writing a book that ventures much beyond our “core competence,” we had to rely heavily on the wisdom of many of our economist friends. Being surrounded by so many brilliant people, it is impossible to remember where every idea came from. Listing some risks excluding many others, but we feel compelled to name (without implicating, of course) Daron Acemoglu, David Atkin, Arnaud Costinot, Dave Donaldson, Rachel Glennerster, Penny Goldberg, Michael Greenstone, Bengt Holmstrom, Michael Kremer, Ben Olken, Thomas Piketty, Emma Rothschild, Emmanuel Saez, Frank Schilbach, Stefanie Stantcheva, and Ivan Werning. Thank you so much for educating us. Thank you also to our PhD advisors, Josh Angrist, Jerry Green, Andreu Mas Colell, Eric Maskin, and Larry Summers; and our many teachers, collaborators, friends, and students, all of whose imprints are everywhere in the book. Again at the risk of being grossly unfair, the book would not be the way it is without the influence of, among others,

Our year of leave at the Paris School of Economics was a godsend. It was a pleasant and fun place to work, both collegial and lively. We are especially grateful to Luc Behagel, Denis Cogneau, Olivier Compte, Hélène Giacobino, Mark Gurgand, Sylvie Lambert, and Karen Maucours; and to Gilles Postel-Vinay and Katia Zhuravskaya for their always-welcoming smiles, much fun conversation, and many sweaty games of tennis. Our MIT colleagues Glenn and Sara Ellison, who coordinated their sabbaticals with us, made the year all the more wonderful. We gratefully acknowledge financial support from the Région Île-de-France (Chaire Blaise Pascal), the Axa Research Fund, the ENS Foundation, Paris School of Economics, and MIT. We thank them for their support.

For over 15 years, the J-PAL crew has not only fed our research fire, but also kept us optimistic about both economics and humankind. We are infinitely fortunate to work with kind, generous and dedicated people every day, year after year. Thank to Iqbal Dhaliwal who steers the ship and to John Floretta, Shobhini Mukherjee, Laura Poswell and Anna Schimpf, who are our daily companions, seen and unseen. And, of course, to Heather McCurdy and Jovanna Mason for valiantly attempting to put some semblance of order into our lives.

Esther’s parents, Michel and Violaine Duflo, and her brother Colas and his family were a huge part of why we had such a lovely time in Paris. Thank you for everything you do for us, year after year.

Abhijit’s parents, Dipak and Nirmala Banerjee, are for him always the ideal readers for what he writes. He thanks them for teaching him so much of the economics he knows and, perhaps more importantly, the reasons why he should care.