THE WEALTH

# AND



# POVERTY OF

# NATIONS

WHY SOME ARE SO RICH AND SOME SO POOR



DAVID S. LANDES

# The — Wealth and Poverty of Nations

Why Some Are So Rich and Some So Poor



## DAVID S. LANDES



W·W·NORTON & COMPANY

New York

London

#### Copyright © 1998 by David S. Landes

## All rights reserved Printed in the United States of America

For information about permission to reproduce selections from this book, write to Permissions, W. W. Norton & Company, Inc., 500 Fifth Avenue, New York, NY 10110.

The text of this book is composed in Galliard with the display set in Modern MT Extended Composition and manufacturing by the Haddon Craftsmen, Inc.

Book design by Jacques Chazaud

Cartography by Jacques Chazaud

Library of Congress Cataloging-in-Publication Data

Landes, David S.

The wealth and poverty of nations: why some are so rich and some so poor / by David S. Landes.

p. cm.

Includes bibliographical references and index.

#### ISBN 0-393-04017-8

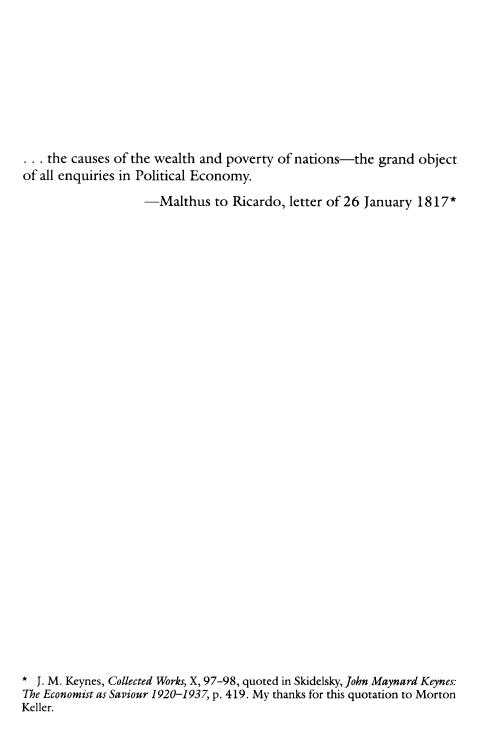
 Wealth—Europe—History. 2. Wealth—History. 3. Poverty— Europe—History. 4. Poverty—History. 5. Regional economic disparities—History. 6. Economic history. 7. Economic development—Social aspects. I. Title. HC240.Z9W45 1998 330.1'6—dc21 97-27508

CTP

W. W. Norton & Company, Inc., 500 Fifth Avenue, New York, N.Y. 10110 http://www.wwnorton.com

W. W. Norton & Company Ltd., 10 Coptic Street, London WC1A 1PU

# For my children and grandchildren, with love.



# Preface and Acknowledgments



My aim in writing this book is to do world history. Not, however, in the multicultural, anthropological sense of intrinsic parity: all peoples are equal and the historian tries to attend to them all. Rather, I thought to trace and understand the main stream of economic advance and modernization: how have we come to where and what we are, in the sense of making, getting, and spending. That goal allows for more focus and less coverage. Even so, this is a very big task, long in the preparing, and at best represents a first approximation. Such a task would be impossible without the input and advice of others—colleagues, friends, students, journalists, witnesses to history, dead and alive.

My first debt is to students and colleagues in courses at Columbia University, the University of California at Berkeley, Harvard University, and other places of shorter stays. In particular, I have learned from working and teaching in Harvard's undergraduate programs in Social Studies and the Core Curriculum. In both of these, teachers come into contact with students and assistants from the full range of concentrations and other faculties and have to field challenges from bright, contentious, independent people, unintimidated by differences in age, rank, and experience.

Second, thanks largely to the sympathetic understanding of Dr. Alberta Arthurs, this work received early support from the Rockefeller Foundation, which funded research and writing and brought a number of scholars together for inspiration and intellectual exchange in its beautiful Villa Serbelloni in Bellagio, Italy—there where the younger Pliny once reconciled beauty, work, and leisure on the shores of Lake Como. Easy to succumb. The meeting led to publication of Favorites of Fortune (eds. Patrice Higonnet, Henry Rosovsky, and myself) and gave me the opportunity to write a first essay on the recent econometric historiography of European growth. Among the people who helped me then and on other occasions, my two co-editors, Higonnet and Roskovsky; also Robert Fogel, Paul David, Rudolf Braun, Wolfram Fischer, Paul Bairoch, Joel Mokyr, Robert Allen, François Crouzet, William Lazonick, Jonathan Hughes, François Jequier, Peter Temin, Jeff Williamson, Walt Rostow, Al Chandler, Anne Krueger, Irma Adelman, and Claudia Goldin.

The Rockefeller Foundation also supported two thematic conferences—one on Latin America in 1988 and another on the role of gender in economic activity and development the following year. Among those who contributed to these stimulating dialogues, exercises in rapid-fire instruction, I want to cite David Rock, Jack Womack, John Coatsworth, David Felix, Steve Haber, Wilson Suzigan, Juan Dominguez, Werner Baer, Claudia Goldin, Alberta Arthurs, and Judith Vichniac.

I also owe a debt of gratitude to Armand Clesse and the Luxembourg Institute for European and International Studies. Mr. Clesse has become one of the key figures in the mobilization of scholars and intellectuals for the discussion and analysis of contemporary political, social, and economic problems. His main theme is the "vitality of nations," which has been interpreted broadly to mean just about anything relevant to national performance. The product has been a series of conferences, which have not only yielded associated volumes but promoted a growing and invaluable network of personal contacts among scholars and specialists. A Clesse conference is a wonderful mixture of debate and sociability—a usually friendly exercise in agreement and disagreement. In 1996, Mr. Clesse organized just such a meeting to deal with the unfinished manuscript of this book. Among those present: William McNeill, global historian and successor in omniscience to that earlier historian of Greece, Arnold Toynbee; Stanley Engerman, America's economic history reader and critic extraordinary; Walt Rostow, perhaps the only scholar to return to original scholarship after

government service; Rondo Cameron, lone crusader against the concept and term of Industrial Revolution; Paul Bairoch and Angus Maddison, collectors and calculators of the numbers of growth and productivity.

A similar meeting, on "The Singularity of European Civilization," was held in June 1996 in Israel, under the sponsorship of the Yad Ha-Nadiv Rothschild Foundation (Guy Stroumsa, coordinator), bringing some of the same people plus another team, medieval and other: Patricia Crone, Ron Bartlett, Emanuel Sivan, Esther Cohen, Yaacov Metzer, Miriam Eliav-Feldon, Richard Landes, Gadi Algazi, et al.

Other venues where I was able to try out some of this material were meetings in Ferrara and Milan (Bocconi University) in 1991; the III Curso de Historia de la Técnica in the Universidad de Salamanca in 1992 (organizers Julio Sánchez Gómez and Guillermo Mira); a Convegno in 1993 of the Società Italiana degli Storici dell'Economia (Vera Zamagni, secretary) on the theme of "Innovazione e Sviluppo"; several sessions of the Economic History Workshop at Harvard; the "Jornadas Bancarias" of the Asociación de Bancos de la República Argentina in Buenos Aires in 1993 on "Las Estrategias del Desarrollo"; a congress in Hull, England, in 1993 (Economic History Society, Tawney Lecture); a conference in Cambridge University on "Technological Change and Economic Growth" (Emma Rothschild, organizer) in 1993; Jacques Marseille and Maurice Lévy-Leboyer's colloquium (Institut d'Histoire économique, Paris, 1993) on "Les performances des entreprises françaises au XXe siècle"; a conference on "Convergence or Decline in British and American Economic History" at Notre Dame University in 1994 (Edward Lorenz and Philip Mirowski organizers, Donald McCloskey promoter); a session on the Industrial Revolution (John Komlos organizer) at the Eleventh International Economic History Congress in Milan in 1994; and a session at the Social Science History Association in Atlanta in 1994.

Also lectures in the universities of Oslo and Bergen in 1995 (Kristine Bruland and Fritz Hodne, organizers); a symposium in Paris in 1995 on the work of Alain Peyrefitte ("Valeurs, Comportements, Développement, Modernité," Raymond Boudon organizer) dealing interalia with regional differences in European economic development; further symposia in 1995 on "The Wealth and Poverty of Nations" in Reggio Emilia and the Bocconi University in Milan (Franco Amatori, organizer).

Also a conference in the University of Oslo in 1996 on "Technological Revolutions in Europe, 1760-1860" under the direction of

Kristine Bruland and Maxine Berg; in 1996, too, at the Fondazione Eni Enrico Mattei in Milan on "Technology, Environment, Economy and Society" (Michele Salvati and Domenico Siniscalco, organizers). And in 1997, a planning meeting in Madrid for the forthcoming Twelfth International Economic History Congress on the theme "Economic Consequences of Empire 1492–1989" (Leandro Prados de la Escosura and Patrick K. O'Brien, organizers).

Each of these encounters, needless to say, focused on those points of particular interest to the participants, with gains to my understanding of both the larger theme and its special aspects.

Given the multiplicity of these meetings plus a large number of personal conversations and consultations, it is not easy to pull together a comprehensive list of those who have helped me on these and other occasions. My teachers first, whose lessons and example have stayed with me: A. P. Usher, M. M. Postan, Donald C. McKay, Arthur H. Cole. Also my colleagues in departments of economics and history in Columbia University (Carter Goodrich, Fritz Stern, Albert Hart, and George Stigler especially); in the University of California at Berkeley (Kenneth Stampp, Hans Rosenberg, Richard Herr, Carlo Cipolla, Henry Rosovsky, and Albert Fishlow especially); and at Harvard (Simon Kuznets, C. Crane Brinton, Alexander Gerschenkron, Richard Pipes, David and Aida Donald, Benjamin Schwartz, Harvey Leibenstein, Robert Fogel, Zvi Griliches, Dale Jorgensen, Amartya Sen, Ray Vernon, Robert Barro, Jeff Sachs, Jess Williamson, Claudia Goldin, Daniel Bell, Nathan Glazer, Talcott Parsons, Brad DeLong, Patrice Higonnet, Martin Peretz, Judith Vichniac, Stephen Marglin, Winnie Rothenberg).

Nor should I forget the extraordinary stimulation I received from a year at the Center for Advanced Study in the Behavioral Sciences in Palo Alto. This was in 1957–58, and I was the beneficiary of a banner crop of economists: Kenneth Arrow, Milton Friedman, George Stigler, Robert Solow (four future winners of the Nobel Prize!). Get a paper past them, and one was ready for any audience.

And then, in addition to those colleagues mentioned above, others at home and abroad. In the United States: William Parker, Roberto Lopez, Charles Kindleberger, Liah Greenfield, Bernard Lewis, Leila Fawaz, Alfred Chandler, Peter Temin, Mancur Olson, William Lazonick, Richard Sylla, Ivan Berend, D. N. McCloskey, Robert Brenner, Patricia Seed, Margaret Jacob, William H. McNeill, Andrew Kamarck, Tibor Scitovsky, Bob Summers, Morton and Phyllis Keller, John Kautsky, Richard Landes, Tosun Aricanlı. In Britain: M. M. Postan, Lance

Beales, Hrothgar John Habakkuk, Peter Mathias, Barry Supple, Berrick Saul, Charles Feinstein, Maxine Berg, Patrick K. O'Brien, P. C. Barker, Partha Dasguppa, Emma Rothschild, Andrew Shonfield. In France: François Crouzet, Maurice Lévy-Leboyer, Claude Fohlen, Bertrand Gille, Emmanuel Leroy-Ladurie, François Furet, Jacques LeGoff, Joseph Goy, Rémy Leveau, François Caron, Albert Broder, Pierre Nora, Pierre Chaunu, Rémy Prudhomme, Riva Kastoryano, Jean-Pierre Dormois. In Germany: Wolfram Fischer, Hans Ulrich Wehler, Jürgen Kocka, John Komlos. In Switzerland: Paul Bairoch, Rudolf Braun, J.-F. Bergier, Jean Batou, François Jequier. In Italy: Franco Amatori, Aldo de Madalena, Ester Fano, Roby Davico, Vera Zamagni, Stefano Fenoaltea, Carlo Poni, Gianni Toniolo, Peter Hertner. In Japan: Akira Hayami, Akio Ishizaka, Heita Kawakatsu, Isao Sutō, Eisuke Daitō. In Israel: Shmuel Eisenstadt, Don Patinkin, Yehoshua Arieli, Eytan Shishinsky, Jacob Metzer, Nahum Gross, Elise Brezis. And elsewhere: Herman van der Wee, Francis Sejersted, Erik Reinert, H. Floris Cohen, Dharma Kumar, Gabriel Tortella, Leandro Prados de la Escosura, Kristof Glamann. To all these and others I owe suggestions, criticisms, data, insights. We have not always agreed, but so much the better.

I want to give special thanks to my extraordinary editor, Edwin Barber, who not only challenged and improved the text but taught me a few things about writing. It's never too late to learn.

Finally, I want to thank my wife, Sonia, who has sweetly put up with years of heaping books, offprints, papers, letters, and other debris. Even multiple work studies have not been big enough, and only the computer has saved the day. Now for the cleanup.

## Introduction



No new light has been thrown on the reason why poor countries are poor and rich countries are rich.

—Paul Samuelson, in 1976<sup>1</sup>

In June of 1836, Nathan Rothschild left London for Frankfurt to attend the wedding of his son Lionel to his niece (Lionel's cousin Charlotte), and to discuss with his brothers the entry of Nathan's children into the family business. Nathan was probably the richest man in the world, at least in liquid assets. He could, needless to say, afford whatever he pleased.

Then fifty-nine years old, Nathan was in good health if somewhat portly, a bundle of energy, untiring in his devotion to work and indomitable of temperament. When he left London, however, he was suffering from an inflammation on his lower back, toward the base of his spine. (A German physician diagnosed it as a boil, but it may have been an abscess.)<sup>2</sup> In spite of medical treatment, this festered and grew painful. No matter: Nathan got up from his sickbed and attended the wedding. Had he been bedridden, the wedding would have been celebrated in the hotel. For all his suffering, Nathan continued to deal with business matters, with his wife taking dictation. Meanwhile the great Dr. Travers was summoned from London, and when he could not cure the problem, a leading German surgeon was called in, presumably to open and clean the wound. Nothing availed; the poison

xviii INTRODUCTION

spread; and on 28 July 1836, Nathan died. We are told that the Rothschild pigeon post took the message back to London: *Il est mort*.

Nathan Rothschild died probably of staphylococcus or streptococcus septicemia—what used to be called blood poisoning. In the absence of more detailed information, it is hard to say whether the boil (abscess) killed him or secondary contamination from the surgeons' knives. This was before the germ theory existed, hence before any notion of the importance of cleanliness. No bactericides then, much less antibiotics. And so the man who could buy anything died, of a routine infection easily cured today for anyone who could find his way to a doctor or a hospital, even a pharmacy.

Medicine has made enormous strides since Nathan Rothschild's time. But better, more efficacious medicine—the treatment of illness and repair of injury—is only part of the story. Much of the increased life expectancy of these years has come from gains in prevention, cleaner living rather than better medicine. Clean water and expeditious waste removal, plus improvements in personal cleanliness, have made all the difference. For a long time the great killer was gastrointestinal infection, transmitted from waste to hands to food to digestive tract; and this unseen but deadly enemy, ever present, was reinforced from time to time by epidemic microbes such as the vibrio of cholera. The best avenue of transmission was the common privy, where contact with wastes was fostered by want of paper for cleaning and lack of washable underclothing. Who lives in unwashed woolens—and woolens do not wash well—will itch and scratch. So hands were dirty, and the great mistake was failure to wash before eating. This was why those religious groups that prescribed washing—the Jews, the Muslims—had lower disease and death rates; which did not always count to their advantage. People were easily persuaded that if fewer Jews died, it was because they had poisoned Christian wells.

The answer was found, not in changed religious belief or doctrine, but in industrial innovation. The principal product of the new technology that we know as the Industrial Revolution was cheap, washable cotton; and along with it mass-produced soap made of vegetable oils. For the first time, the common man could afford underwear, once known as body linen because that was the washable fabric that the well-to-do wore next to their skin. He (or she) could wash with soap and even bathe, although too much bathing was seen as a sign of dirtiness. Why would clean people have to wash so often? No matter. Personal hygiene changed drastically, so that commoners of the late

INTRODUCTION

nineteenth and early twentieth century often lived cleaner than the kings and queens of a century earlier.

The third element in the decline of disease and death was better nutrition. This owed much to increases in food supply, even more to better, faster transport. Famines, often the product of local shortages, became rarer; diet grew more varied and richer in animal protein. These changes translated among other things into taller, stronger physiques. This was a much slower process than those medical and hygienic gains that could be instituted from above, in large part because it depended on habit and taste as well as income. As late as World War I, the Turks who fought the British expeditionary force at Gallipoli were struck by the difference in height between the steak- and muttonfed troops from Australia and New Zealand and the stunted youth of British mill towns. And anyone who follows immigrant populations from poor countries into rich will note that the children are taller and better knit than their parents.

From these improvements, life expectancy has shot up, while the differences between rich and poor have narrowed. The major causes of adult death are no longer infection, especially gastrointestinal infection, but rather the wasting ailments of old age. These gains have been greatest in rich industrial nations with medical care for all, but even some poorer countries have achieved impressive results.

Advances in medicine and hygiene exemplify a much larger phenomenon: the gains from the application of knowledge and science to technology. These give us reason to be hopeful about the problems that cloud present and future. They even encourage us toward fantasies of eternal life or, better yet, eternal youth.

Yet these fantasies, when science-based, that is, based on reality, are the dreams of the rich and fortunate. Gains to knowledge have not been evenly distributed, even within rich nations. We live in a world of inequality and diversity. This world is divided roughly into three kinds of nations: those that spend lots of money to keep their weight down; those whose people eat to live; and those whose people don't know where the next meal is coming from. Along with these differences go sharp contrasts in disease rates and life expectancy. The people of the rich nations worry about their old age, which gets ever longer. They exercise to stay fit, measure and fight cholesterol, while away the time with television, telephone, and games, console themselves with such euphemisms as "the golden years" and the *troisième âge*. "Young" is good; "old," disparaging and problematic. Meanwhile the people of

XX INTRODUCTION

poor countries try to stay alive. They do not have to worry about cholesterol and fatty arteries, partly because of lean diet, partly because they die early. They try to ensure a secure old age, if old age there be, by having lots of children who will grow up with a proper sense of filial obligation.

The old division of the world into two power blocs, East and West, has subsided. Now the big challenge and threat is the gap in wealth and health that separates rich and poor. These are often styled North and South, because the division is geographic; but a more accurate signifier would be the West and the Rest, because the division is also historic. Here is the greatest single problem and danger facing the world of the Third Millennium. The only other worry that comes close is environmental deterioration, and the two are intimately connected, indeed are one. They are one because wealth entails not only consumption but also waste, not only production but also destruction. It is this waste and destruction, which has increased enormously with output and income, that threatens the space we live and move in.

How big is the gap between rich and poor and what is happening to it? Very roughly and briefly: the difference in income per head between the richest industrial nation, say Switzerland, and the poorest nonindustrial country, Mozambique, is about 400 to 1. Two hundred and fifty years ago, this gap between richest and poorest was perhaps 5 to 1, and the difference between Europe and, say, East or South Asia (China or India) was around 1.5 or 2 to 1.3

Is the gap still growing today? At the extremes, clearly yes. Some countries are not only *not* gaining; they are growing poorer, relatively and sometimes absolutely. Others are barely holding their own. Others are catching up. Our task (the rich countries), in our own interest as well as theirs, is to help the poor become healthier and wealthier. If we do not, they will seek to take what they cannot make; and if they cannot earn by exporting commodities, they will export people. In short, wealth is an irresistible magnet; and poverty is a potentially raging contaminant: it cannot be segregated, and our peace and prosperity depend in the long run on the well-being of others.

How shall the others do this? How do we help? This book will try to *contribute to* an answer. I emphasize the word "contribute." No one has a simple answer, and all proposals of panaceas are in a class with millenarian dreams.

I propose to approach these problems historically. I do so because I am a historian by training and temperament, and in difficult matters of this kind, it is best to do what one knows and does best. But I do so

INTRODUCTION xxi

also because the best way to understand a problem is to ask: How and why did we get where we are? How did the rich countries get so rich? Why are the poor countries so poor? Why did Europe ("the West") take the lead in changing the world?

A historical approach does not ensure an answer. Others have thought about these matters and come up with diverse explanations. Most of these fall into one of two schools. Some see Western wealth and dominion as the triumph of good over bad. The Europeans, they say, were smarter, better organized, harder working; the others were ignorant, arrogant, lazy, backward, superstitious. Others invert the categories: The Europeans, they say, were aggressive, ruthless, greedy, unscrupulous, hypocritical; their victims were happy, innocent, weak—waiting victims and hence thoroughly victimized. We shall see that both of these manichean visions have elements of truth, as well as of ideological fantasy. Things are always more complicated than we would have them.

A third school would argue that the West-Rest dichotomy is simply false. In the large stream of world history, Europe is a latecomer and free rider on the earlier achievements of others. That is patently incorrect. As the historical record shows, for the last thousand years, Europe (the West) has been the prime mover of development and modernity.

That still leaves the moral issue. Some would say that Eurocentrism is bad for us, indeed bad for the world, hence to be avoided. Those people should avoid it. As for me, I prefer truth to goodthink. I feel surer of my ground.

## Contents



	Preface and Acknowledgments	xi
	Introduction	xvii
1.	Nature's Inequalities	3
2.	Answers to Geography: Europe and China	17
3.	European Exceptionalism: A Different Path	29
4.	The Invention of Invention	45
5.	The Great Opening	60
6.	Eastward Ho!	79
7.	From Discoveries to Empire	99
8.	Bittersweet Isles	113
9.	Empire in the East	125
10.	For Love of Gain	137
11	Golconda	150

X CONTENTS

12.	Winners and Losers: The Balance Sheet of Empire	168
13.	The Nature of Industrial Revolution	186
14.	Why Europe? Why Then?	200
15.	Britain and the Others	213
16.	Pursuit of Albion	231
17.	You Need Money to Make Money	256
18.	The Wealth of Knowledge	276
19.	Frontiers	292
20.	The South American Way	310
21.	Celestial Empire: Stasis and Retreat	335
22.	Japan: And the Last Shall Be First	350
23.	The Meiji Restoration	371
24.	History Gone Wrong?	392
25.	Empire and After	422
26.	Loss of Leadership	<i>44</i> 2
27.	Winners and	465
28.	Losers	491
29.	How Did We Get Here? Where Are We Going?	512
	Notes	525
	BIBLIOGRAPHY	567
	INDEX	637