

Morris
&
Adelman

Comparative
Patterns of
Economic
Development,
1850-1914

Johns
Hopkins

Comparative Patterns of Economic Development 1850–1914

Cynthia Taft Morris
Irma Adelman

The Johns Hopkins University Press
Baltimore and London

*Published with assistance from
the Karl and Edith Pribram Endowment*

©1988 The Johns Hopkins University Press
All rights reserved
Printed in the United States of America

The Johns Hopkins University Press
701 West 40th Street
Baltimore, Maryland 21211
The Johns Hopkins Press Ltd., London

The paper used in this publication meets the minimum requirements
of American National Standard for Information Sciences—
Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.



Library of Congress Cataloging-in-Publication Data

Morris, Cynthia Taft.

Comparative patterns of economic development, 1850-1914.

(Johns Hopkins studies in development)

Bibliography: p.

Includes index.

1. Economic history—1750-1918. 2. Economic development—History.

I. Adelman, Irma. II. Title. III. Series.

HC51M645 1988

338.9'009

87-45480

ISBN 0-8018-3507-0 (alk. paper)

Comparative Patterns of Economic Development, 1850-1914

THE JOHNS HOPKINS STUDIES IN DEVELOPMENT

Vernon W. Ruttan and T. Paul Schultz,
Consulting Editors

Also of interest in this series:

*Asian Village Economy at the Crossroads: An Economic Approach
to Institutional Change*

by Yujiro Hayami and Masao Kikuchi

The Agrarian Question and Reformism in Latin America

by Alain de Janvry

Redesigning Rural Development: A Strategic Perspective

by Bruce F. Johnston and William C. Clark

The Geography of Underdevelopment: A Critical Survey

by D. K. Forbes

Agricultural Development: An International Perspective,

revised and expanded edition

by Yujiro Hayami and Vernon W. Ruttan

*Neoconservative Economics in the Southern Cone of Latin America,
1973-1983*

by Joseph Ramos



*To our children and students, who bore with us,
and our husbands, who didn't*

Preface:

Where Angels Fear to Tread

This book is the culmination of a project that began in the summer of 1965. With great optimism we set out to test propositions generated by *Society, Politics, and Economic Development* (Adelman and Morris 1967), by expanding our data set to include earlier development experience. It seemed to us a natural extension of our work to ask whether the hypotheses we had derived from our previous research were supported by the historical record.

The questions we ask here and our methodology are strongly influenced by our previous research on today's developing countries. This research was, and still is, controversial. Our friends gave us dire warnings about the likely even more skeptical reception of our historical endeavor. Historians would dislike our classificatory data and unconventional quantitative approach for doing violence to the complexity and detail of individual national histories. Quantitative economic historians would dislike them just as strongly for departing from accepted procedures of measurement and hypothesis testing. Economists would object to our use of soft data, lack of a priori model specification, and unfamiliar statistical techniques. Undeterred by these warnings and our initial ignorance of history, we were indeed the "fools" who stepped in "where angels fear to tread" (our original title for the book, which we reluctantly abandoned because it did not adequately describe our subject).

Our original intention to analyze contemporary and historical samples together proved infeasible. Our search for measurement procedures suitable to both samples posed intractable conceptual problems, and the technological contexts of growth differed too much between the two. In the present historical work, we focus on understanding better the reasons for the strikingly different paths of economic and institutional change that marked development experience during the nineteenth and early twentieth centuries, a period characterized by the dramatic spread of capitalism throughout the world. The broad hypotheses guiding us are that institutions played a major role in determining development performance, and that institutional and economic influences interacted very differently in countries at dissimilar levels of development and along diverse paths of economic growth.

We owe a major intellectual debt to our friends and critics. Our primary debt is to Svante Wold for the statistical technique and the computer program used to implement it. We are deeply indebted to Herman Wold, who has been a constant source of inspiration and encouragement. George Dalton and Jonathan Hughes warmly supported our endeavors from beginning to end; we had many stimulating discussions with them throughout the years. With comments that ranged from qualified approval to stinging critique, a long line of National Science Foundation reviewers prompted us to clarify our project. Among our most recent intellectual debts are those to a reviewer whose suggested revisions we spent a year accomplishing; another reviewer, whose criti-

cal insights greatly improved chapter two; and our friend and critic Jeffrey Williamson, whose well-honed judgments provoked us to sharpen our thinking about the course of poverty in the nineteenth century.

Our obligations to institutions are several. We thank the American University, the Giannini Foundation, the University of California at Berkeley, and Smith College for their support, direct and indirect, over the years. We are indebted to the Karl and Edith Pribram Fund for a very welcome publication subsidy. The National Science Foundation generously provided the American University with three grants covering nine years of our historical work (NSF Grants GS2275, GS3258, and SES79-14243). We particularly appreciate the final grant, which came in the face of continued controversy over our data and approach. Without that support, we would have had to rest with our published articles, and this book could not have been written.

Among those who made this project possible a few are so important that we doubt we could have completed it without them. Margaret and Albert Moe came first in time. Marge typed all the versions of the bibliography and data appendix through 1981 with unparalleled care, accuracy, devotion, and good will, in spite of deteriorating health. Al, refusing recompense other than the satisfaction of his passion for bibliographic work, checked over one hundred pages of references in the Library of Congress catalogs and stacks. The revisions he proposed enable the user to find the references much more easily.

Our debt to Frances Summe-Smith, American University graduate student and research assistant under our final NSF Grant, now a stockbroker, is enormous. She took complete charge of revising and bringing up-to-date the data and classifications for our quantitative economic and demographic indicators, preparing both the classification schemes and the numerous tables of underlying country data and sources. Without her persistence, good judgment, and detective work we could not have included foreign trade or wage variables in our data set. In the final months of data preparation she supervised the completion, correction, typing, and proofing of 250 pages of tables and organized eighteen years of research materials for shipment to Northampton, Massachusetts. We are deeply indebted to her for her intelligence, attention to detail, humor, patience, and friendship.

It is difficult to imagine the project's completion without Ellen Dibble of Smith College, for whose skillful typing, stylistic suggestions, and moral support we are very grateful. She typed many versions of the text, data appendix, and bibliography. She became an expert in style and format, expressing a keen interest in and being challenged by the numerous problems and complications we faced. With great capability and speed, she completed the final photoready appendix and bibliography, undaunted by hundreds of small changes.

We would also especially like to thank Carol Nuckton of the Giannini Foundation, who gave the entire manuscript a much-needed thorough edit-

ing, cutting, and simplification of language. We are also indebted to Eli and Gail Liss for an excellent index.

Many of our students have contributed to the project. Mary Phillipides Vlantikas, a top-notch student from American University of Beirut and now with the Federal Reserve of Boston, started the project off in the summer of 1965 with intensive work on social and political variables. Among American University Ph.D. students, Sue Headlee, now at Howard University, stands out for her extensive critique of chapter 1, excellent work on the wage variables, and keen interest in our approach. We value greatly her support and friendship over the past decade. Cindy Lamberts typed and retyped many tables and worked long and well on the foreign dependence variable, in spite of materials with imperialist viewpoints that greatly aggravated her. Henley Portner worked months on the government and transportation variables, and Debby Sandel worked on the political and economic institutional ones; both did an excellent job. At Smith College, Agnes Black undertook a massive consistency check between the bibliography and the appendix citations. Erica Massey spent one whole summer and close to one hundred hours during the final countdown in March 1987 resolving the inconsistencies thus uncovered with superb accuracy and dependability; she also proofed the entire camera-ready data appendix and bibliography. Lisa Genasci gave the manuscript its first skillful outside edit, suggesting many changes designed to help historians read it. Laurie James did a perfectionist job of proofing the text.

Finally, we would like particularly to thank Anders Richter of the Johns Hopkins University Press for his support and confidence from start to finish, and Penny James Moudrianakis for her patient and expert final editing of this and our first book (also published by Johns Hopkins).

We make no apologies for the twenty-one years this project lasted. Much of our work on contemporary development was published during those years. The demands of personal relationships and teaching frequently came first. While we would never have undertaken the project had we realized what it entailed, we have no regrets. Our intellectual journey has been an exciting one. As for the book's defects, we can only say with Cassius: "The fault, dear Brutus, lies not in our stars but in ourselves."

Contents

Preface: Where Angels Fear to Tread ix

1	Economic Development and Institutional Change	3
2	The Research Design	33
3	Patterns of Domestic Market Expansion	63
4	Patterns of Industrialization	96
5	Patterns of Agricultural Development	125
6	Patterns of Foreign Economic Dependence	155
7	The Course of Poverty	178
8	Conclusion	209
	Data Appendix	223
	<i>List of Tables</i>	223
	<i>Introductory Note</i>	225
	<i>The Economic Variables, with Frances Summe-Smith</i>	225
	<i>The Demographic Variables, with Frances Summe-Smith</i>	231
	<i>The Human Capital and Socioinstitutional Variables</i>	233
	<i>The Politicoinstitutional Variables</i>	236
	<i>The Market Institutional Variables</i>	238
	<i>Notes on Usage</i>	241
	<i>Tables</i>	243
	Bibliography	479
	Index	571

Comparative Patterns of Economic Development, 1850-1914

What our time needs most and lacks most is [an] understanding of the [economic] process, which people are passionately resolved to control. To supply this understanding is to implement that resolve and to rationalize it. This is the only service the scientific worker is, as such, qualified to render. As soon as it is rendered, everyone can draw for himself the practical conclusions appropriate to his individual interests.

—Schumpeter 1939

1 Economic Development and Institutional Change

The purpose of this research is to analyze the dynamics of societies during epochs of rapid economic growth. The study focuses on economic and institutional change in 23 countries during the nineteenth and early twentieth centuries. We investigate the nature and causes of the often striking differences in performance among groups of countries. We explore not only the reasons for successful development but also the causes for incomplete transformation and for failure.

Our central theses are: first, domestic institutional change was the most potent dynamic factor determining the pace and structure of economic development in the nineteenth century; second, initial institutions were more important than initial resources, capital, technology, demography, or markets in determining subsequent patterns of development; and third, there was no unique constellation of institutional prerequisites. We therefore investigate how different clusters of institutions interacted with economic conditions and policy to determine economic performance.

Our method is empirical and quantitative. We categorize the data according to economic and institutional influences and apply statistical techniques to analyze both the patterns of similarity within subsets of countries and the systematic differences between groups of countries.

Economic growth is a quantitative phenomenon. In the modern era it means that per capita GNP rises even as population grows and as human and other resources move out of agriculture into sectors of higher productivity (Kuznets 1968). Economic development involves quantitative changes in economic structure—changes in the distribution of labor and output between sectors, in sources of household income, and in the composition of consumption, savings, and investment. However, the essence of economic development is qualitative change: change in the relationships among individuals, classes, and political groups; and technological and institutional change in the ways that production, distribution, and consumption take place. Above all, development means dynamic evolution.

In Western Europe, the evolution of capitalism from the sixteenth and seventeenth centuries onward made possible the industrial revolutions of the nineteenth century. These two interrelated phenomena, capitalism and the industrial revolutions, generated unprecedented growth and development in Europe. Capitalist expansion permeated much of the world as Europeans sought raw materials, food, markets, and land. With European penetration, indigenous civilizations in Latin America were destroyed, while viable settlements in North America and in parts of Australasia were established. By the eve of World War I, Europe and the United States had been transformed into great industrial powers. Between the 1830s and the 1920s about fifty million Europeans migrated to the continents of North and South America until one-

eleventh of the world's population consisted of Europeans living outside Europe (Thomas 1973, p. 244). European trade, investment, and settlement in Latin America, Southeast Asia, and, to a lesser extent, the rest of Asia led to a phenomenal expansion of food and raw material exports to Europe in exchange for manufactures. But only some of the affected non-European societies experienced export-based growth leading to domestic industrial expansion. Both the structure of growth and the dynamics of institutional change varied strikingly among the countries of the non-European world.

The study of history is indispensable for understanding the causes of today's underdevelopment. It is not so much that the roots of contemporary experience lie far in the past nor that any particular paths of economic change could be replicated. Rather, the usefulness of history lies in showing the wide range of experiences that account for the successes and failures of export-led growth in promoting domestic economic development. History enhances our understanding of the nature and importance of interconnections among economic, social, and political changes in a wide range of different institutional settings.

We study national units, even though variations within national boundaries often exceed "average" differences among countries. Although historical data really allow us no other alternative, our choice can be justified on other grounds. Institutional arrangements affecting property are fundamental to the processes of economic development, and national boundaries are indispensable to the evolution of these property institutions. Foreign trade, infrastructural investment, and relationships among advanced and dependent nations are all based on national units. Furthermore, the historical growth of the modern nation-state was closely tied to the expansion of capitalism so that its characteristics and policies need to be included in any historical study of growth and development.

In the remainder of this chapter, we review and evaluate the principal models of the dynamics of long-term structural change and institutional transformation. We use this literature to help specify variables for statistical analysis and define typologies for grouping countries by similarity of institutional transformations. Our main interest is in theories and theses that highlight causal mechanisms linking socioeconomic, economic, and political transformations during development, stagnation, or "underdevelopment." Why did the industrial revolution, which started in Great Britain, induce economic development in some countries, fail to induce development in others, and induce only limited development in still others?

In answering these questions we look for hypotheses about the characteristics and causes of nineteenth-century institutional transformations. Specifically, what do these models say about the types of institutional change that are most characteristic of expanding capitalism, the initial economic and institutional conditions that determine the character and extent of change, the

dynamic forces that galvanize change, the agents of change and their motivations, and the consequences for economic well-being of different types of change?

We do not limit ourselves to theories that can be directly “tested” with our data, but we do restrict ourselves to theories that elucidate the structural and institutional changes represented by our data or illuminate the limitations of our undertaking. We attempt to illustrate major themes rather than to discuss the literature in detail.

The theories we review are drawn from development theory and economic history. Economic development theories provide diverse views about forces for institutional change in the nineteenth century. In classical and neo-classical theories, market opportunities and profit maximization are the great forces for economic and institutional change. Marx, Schumpeter, Gerschenkron, and Polanyi provide strikingly different visions of historical capitalist dynamics. Comparative historians incorporate a wide range of institutional forces in analyzing nineteenth-century industrial revolutions. Dependency theorists and other development pessimists studying underdeveloped countries stress negative institutional consequences of growth in very low income countries. Alternative positive views of nineteenth-century underdeveloped countries relate mainly to those with abundant agricultural resources.

CLASSICAL AND NEOCLASSICAL DEVELOPMENT OPTIMISTS

Development theorists in the classical and neoclassical traditions emphasize the historical force of expanding markets in inducing innovations and institutional changes favoring sustained economic growth. They assume a wide spread of benefits from growth in a world in which markets function reasonably well.

Classical Theories

In Adam Smith’s theory of growth (1910), market opportunities and individual self-interest drive the institutional changes producing economic growth. Capital accumulation and innovation provide the internal dynamics while population growth provides the necessary labor. Capitalist transformations require two key institutional conditions: security of property and economic freedom. The impelling motives are the pursuit of private advantage, based on a human propensity to truck and barter, a preponderant interest in private frugality, and high rates of return. Extensions of navigation (e.g., opening up America and a passage to the East Indies) and growing towns instigate market extensions and thus institutional change. Markets attract private saving into capital accumulation and promote an increasing division of labor. In-

creased capital and specialization in turn stimulate the growth of urban manufacturing and agricultural improvements. Wider geographical markets and increased division of labor lead to more capital accumulation and greater increases in national wealth. Higher wages follow and induce population growth.

John Stuart Mill (1961) also underlines the importance of the security of persons and property and positive attitudes toward work and saving. But in addition he emphasizes the critical positive role of social arrangements that "provide that the reward of everyone for his labour shall be proportioned as much as possible to the benefit which it produces," and deplors laws and usages that "chain up the efforts of any part of the community in pursuit of their own good, or stand between these efforts and their natural fruits" (pp. 108-110). He lays great stress on the importance of knowledge and education.

In Mill's scheme, economic progress itself becomes a force for institutional change, strengthening growth-promoting attitudes, contributing to greater security of property, reducing uncertainty, and thereby further promoting production and accumulation. Mill also stresses the dynamic benefits from trade—particularly the spread of communication. The creation of new desires with expanded trade "sometimes works a sort of industrial revolution in a country whose resources were previously undeveloped for want of energy and ambition in the people" (*ibid.*, p. 581).

Classical authors hold diverse views on the welfare effects of sustained growth and its associated institutional changes. Although Mill was an optimist, he pointed to the possibility that the rich, the intermediate classes, and many of the poor could grow richer, increasing national prosperity, "yet the great class at the base of the whole might increase in numbers only, and not in comfort nor in cultivation" (*ibid.*, p. 699). Malthus (1914), while pessimistic about population growth, gave great emphasis to the force of educational institutions in limiting population growth, arguing that such institutions induce moral restraint among the poor. Ricardo (1911) assumed that landlords would benefit most from long-term economic progress as an increasing scarcity of land raised the cost of feeding laborers and those who controlled the land captured the gain. Because of England's expansion of food imports, Ricardo's forecast failed, but his analysis of the consequences of sudden and large changes in demand, technical methods, or economic policies remains historically relevant. In his view, war or sudden demobilization or extensive technological change cause rapid structural changes that increase unemployment and shift the distribution of income toward manufacturers as well as landlords (*ibid.*).

In general, the contribution of the classical writers lay in their emphasis on the *dynamic* institutional impacts of expanding markets, the positive role of social arrangements conducive to innovations, the importance of stable political institutions to business investment incentives, and the differential impact of economic growth on different classes of society.

Lewis's Classical Model of Dualistic Growth

In Lewis's two-sector model of dualistic growth (1954), the dynamic for institutional change is capital accumulation. He assumes that once a small capitalist class exists, capitalists save and plow back their profits into further expansion, leading to larger enterprises and a constantly rising capitalist surplus. Capitalist expansion depends on a labor surplus in agriculture that supplies the expanding industrial sector without lowering agricultural output. Social overhead capital can be created with very little capital by projects intensive in surplus labor. Communal family production on overly small holdings retains excess family workers by promoting the sharing of consumption goods, which enables workers with a negligible marginal product to obtain a subsistence. Other "surplus" workers with negligible marginal products sharing family consumption are excess casual urban wage laborers, petty retail traders making few sales, and unneeded domestic workers retained for social prestige. Capitalist expansion, mainly through industrialization, is slowed only when the sources of surplus labor dry up. (International migration from other labor-surplus countries may sustain the profitability of capitalist growth.)¹

As for welfare effects, the Lewis model suggests how the persistence of pre-capitalist institutions sharply affects the structure, rate, and impact of economic expansion. All capitalists must pay a wage equal to at least the average product in agriculture. (In practice, they pay more to attract workers away from family production). One consequence is capitalist interest in keeping agricultural productivity low. Lewis points to colonial land and tax policies in Africa that forced labor into the capitalist sector by restricting real income in the subsistence sector. His model has frequently been applied to explain why capitalist expansion raises wages much more slowly than profits, thereby increasing inequality.

Trade Models with Institutional Change: Jones and Woolf

A few neoclassical trade models integrate trade theory with institutional analysis. Jones and Woolf (1969) attribute the success of industrial development in Western Europe and Japan to a rare conjunction of economic and institutional influences. In their view, a crucial aspect of gradually rising agricultural productivity from the sixteenth century onward was that numerous market-oriented farmers emerged from the disintegration of medieval farming. A slowing of population growth produced "breathing space," or a gap where

¹ Criticisms of the Lewis model question whether underemployed labor represents a true labor surplus. Since much surplus agricultural labor is needed at harvest time, its marginal product is positive, so that food output falls as labor shifts into manufacturing. This effect and increased food consumption by rural migrants to cities produce inflation. Then too, a labor surplus does not prevent severe bottlenecks for skilled labor (Higgins 1968, pp. 318ff.).