Africans and the Industrial Revolution in England

A Study in International Trade and Economic Development

JOSEPH E. INIKORI University of Rochester



PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS

The Edinburgh Building, Cambridge CB2 2RU, UK 40 West 20th Street, New York, NY 10011-4211, USA 477 Williamstown Road, Port Melbourne, VIC 3207, Australia Ruiz de Alarcón 13, 28014 Madrid, Spain Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

© Joseph E. Inikori 2002

This book is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2002

Printed in the United Kingdom at the University Press, Cambridge

Typeface Sabon 10/12 pt. System QuarkXPress [BTS]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication data

Inikori, J. E.

Africans and the industrial revolution in England / Joseph E. Inikori.

p. cm.

Includes bibliographical references.

ISBN 0-521-81193-7 - ISBN 0-521-01079-9 (pb.)

1. International trade – History. 2. Industrial revolution – England – History.

3. Slave-trade - Africa - History. 4. Slavery - Economic aspects - England - History.

Slavery - Economic aspects - America - History.
 England - Commerce - America - History.
 America - Commerce - England - History.
 Title.

HF 1379 .1535 2002

382'.44'096-dc21 2001037927

ISBN 0 521 81193 7 hardback ISBN 0 521 01079 9 paperback

Contents

·		page x	
Preface	2		XV
Chapte	er 1	Introduction	I
Chapte	er 2	The English Economy in the Longue Durée	19
Chapte	er 3	A Historiography of the First Industrial Revolution	89
Chapte	er 4	Slave-Based Commodity Production and the Growth of Atlantic Commerce	156
Chapte	er 5	Britain and the Supply of African Slave Labor to the Americas	215
Chapte	er 6	The Atlantic Slave Economy and English Shipping	265
Chapte	er 7	The Atlantic Slave Economy and the Development of Financial Institutions	314
Chapte	er 8	African-Produced Raw Materials and Industrial Production in England	362
Chapte	er 9	Atlantic Markets and the Development of the Major Manufacturing Sectors in England's	
		Industrialization	405
Chapter 10		Conclusion	473
		Appendixes	487
4.I	Aveı	rage Annual Estimates of Bullion Import into Europe	
	fron	the Americas, 1501–1800	487
4.2	Braz	ilian Sugar Export, 1536–1822 (£000 sterling)	488
		rage Annual Value and Commodity Composition of	
	Exp	orts from British America to Britain	489
		••	

viii	Contents	
5.1	Mean Slave Loading by Ships Cleared out to Africa from Ports in England	490
5.2	Vessels Reported Lost but not Found on the Lists of Vessels Cleared out to Africa from Ports in England, 1796–1805	491
6.1	Routes of Vessels Insured to Africa by William Braund, 1759–1772	493
6.2	Guineamen Identified in Liverpool (Prime) Registries 1786, 1787, 1788	495
7.1	Transcripts from the Balance Books of Arthur Heywood, Sons & Co., of Liverpool, Showing the Structure of the Bank's Assets and Liabilities, 1787–1790 and 1801–1807	507
7.2	Insurance Premiums Paid on African Ventures	510
9.1	Shares of English and Foreign Products in Manufactures Exported from England to Western Africa, 1658–1856	512
9.2	Shares of English and Foreign Products in Manufactures Exported from England to the Americas, 1701–1856	514
9.3	Shares of English and Foreign Products in Manufactures Exported from England to Southern Europe, 1699–1856	514
9.4	Commodity Composition of Foreign Products Exported from England to Western Africa, 1658–1693 (in percentages)	515
9.5	Commodity Composition of Foreign Products Exported from England to Western Africa, 1699–1856	
2 ((in percentages)	516
9.6	Commodity Composition of Foreign Products Exported from England to the Americas, 1699–1856 (in percentages)	517
9.7	Commodity Composition of Foreign Products Exported from England to Southern Europe, 1699–1856	
	(in percentages)	517
9.8	Commodity Composition of British Products Exported from England to Western Africa, 1658–1693 (in percentages)	518
9.9	Commodity Composition of British Products Exported from England to Western Africa, 1699–1856 (in percentages)	519
9.10	Commodity Composition of British Products Exported from England to the Americas, 1699–1856 (in percentages)	520
9.11	Commodity Composition of British Products Exported from England to the West Indies, 1783–1856 (in £000)	521

	Contents	ix
9.12	Commodity Composition of British Products Exported from England to Southern Europe, 1699–1856 (in £000)	522
9.13	Shares of Portugal and Spain in Total Exports (Domestic and Re-exports) from England to Southern Europe, 1701–1800	523
Biblic	ography	525
Index		551

Tables

2.I	Growth of Industrial Output (percent per year)	page 60
2.2	Changing Structure of Industrial Value Added in Britain (£m. current and percent)	61
2.3	Population of England (Selected Years)	63
2.4	England's Ten Top Counties in Order of Wealth Assessed for Tax	64
2.5	Regional Distribution of Pig Iron Production in England and Wales	70
2.6	Factory Employment in the Main Woollen Districts	74
2.7	Comparative Decennial Population Growth Rates in Selected Regions of England	81
3.1	Trade and Comparative Performance of Import Substitution Industrialization (ISI) Strategies (current price, £ sterling for England, US\$ for others)	152
4.I	Brazilian Export, 1651–1820 (£000 sterling)	172
4.2	Regional Distribution of Commodity Export Production in British America, 1663–1860	ı 176
4.3	Average Annual Value of Exports from the French Caribbean to France, 1683–1785	178
4.4	Annual Value (f.o.b.) of Export Production in the Americas, 1501–1850	181
4.5A	Ethnic Composition of the Populations in the Main Regions of Brazil, 1798	189
4.5B	Ethnic Composition of the Populations in the Main Regions of Brazil, 1872	190

Tables	xi

4.6A	Africans and Europeans in British America, 1650–1860 (in thousands)	194
4.6B	Africans in the British Caribbean and the Southern Slave Colonies/States of Mainland British America (in thousands)	195
4.7	Share of Export Commodities Produced by Africans in the Americas, 1501–1850	197
4.8	Total Annual Average Value of Atlantic Commerce (exports plus re-exports plus imports plus services), 1501–1850	202
5.1	Estimate of the Number of Slaves Transported by Ships Clearing from Ports in England, 1701–1807	238
5.2	Number of British Vessels in the African Trade Lost in Peace and Wartime, 1689–1807	261
6.1	Quantity and Percentage of England's Exports and Imports Carried by English Ships, 1663–1857	268
6.2	English-Owned Merchant Shipping and English-Owned Merchant Shipping Employed in Foreign Trade, 1560–1857	270
6.3	Tonnage of English Merchant Shipping and Number of Seamen Employed, 1790–1807	274
6.4	Tonnage and Value of Ships Newly Built and Registered in England, 1787–1807	275
6.5	Annual Cost of New Ships Registered and Maintenance Cost of Existing English Shipping, 1788–1807	277
6.6	Regional Distribution of English-Owned Ships Employed in Foreign Trade (in tons)	280
6.7	Age Distribution of Guineamen in Liverpool (Prime) Registries, 1786, 1787, and 1788	300
6.8	A List of Guineamen Cleared Outward from England to Western Africa in Successive Years Analyzed to Show Clearance Frequency	301
6.9	Number and Tonnage of Vessels Cleared Out from England to Western Africa each Decade, with Estimates of Tonnage Purchased and Employed in the African Trade per Decade	302
6.10	Guineamen in Liverpool (Prime) Registries, 1786, 1787, and 1788, Analyzed to Show Place of Building	303
6.11	Calculation of Outfit from Private Books of Merchant Houses	304

	T 11
X11	Tables

Ships Cleared Out from England to Western Africa, 1750–1807 (with Estimated Amount of Outfit)	305
Ships Cleared Out from Liverpool to Western Africa with Estimated Amount of Outfit	310
Outward Cost of Individual Ventures Analyzed to Show the Proportion of Cash and Credit Payments	331
Period and Route Specific Insurance Rates in the Atlantic Slave Economy, 1701–1807 (percent)	350
Insurance Premiums in the British Slave Trade	351
Account Sales of a Jamaican Planter's Sugar in England 1792–1798 (in £000 sterling and percent)	353
Insurance on Goods Transported Between Great Britain and the British West Indies, and Between Great Britain and the United States of America (annual average in £000)	354
Insurance Premiums on Shipping Transporting Goods Between Great Britain and the West Indies	355
Insurance Premiums on Shipping Transporting Goods Between Great Britain and the United States	356
Regional Distribution of British Raw Material Imports, 1784–1856 (in £000 sterling)	369
Three-year Annual Average Value of the Principal Raw Material Imports from Africa and the Americas (in £000)	373
Total Value (in £000 sterling) and Percentage Distribution of Raw Material Imports into Great Britain from the North American Colonies, 1768–1772	375
Quantity of Raw Cotton (in 1,000lbs) Imported into	376
Regional Distribution of British Raw Material Imports	377
British Raw Material Imports Produced by Africans in the	380
Quantity of Redwoods, Gum Senegal, and Gum Arabic Imported into England from Western Africa, 1750–1807 (6-year totals in tons)	396
Export of English Woollens to Atlantic Markets, 1699–1856	414
Linens Imported into England, Re-exported and Retained, 1699–1856 (in £000)	423
Domestic and Foreign Linens Exported from England, 1699–1856 (in £000)	426
	Ships Cleared Out from Liverpool to Western Africa with Estimated Amount of Outfit Outward Cost of Individual Ventures Analyzed to Show the Proportion of Cash and Credit Payments Period and Route Specific Insurance Rates in the Atlantic Slave Economy, 1701–1807 (percent) Insurance Premiums in the British Slave Trade Account Sales of a Jamaican Planter's Sugar in England 1792–1798 (in £000 sterling and percent) Insurance on Goods Transported Between Great Britain and the British West Indies, and Between Great Britain and the United States of America (annual average in £000) Insurance Premiums on Shipping Transporting Goods Between Great Britain and the West Indies Insurance Premiums on Shipping Transporting Goods Between Great Britain and the United States Regional Distribution of British Raw Material Imports, 1784–1856 (in £000 sterling) Three-year Annual Average Value of the Principal Raw Material Imports from Africa and the Americas (in £000) Total Value (in £000 sterling) and Percentage Distribution of Raw Material Imports into Great Britain from the North American Colonies, 1768–1772 Quantity of Raw Cotton (in 1,000lbs) Imported into England, 1768–1783 Regional Distribution of British Raw Material Imports from the Americas, 1784–1856 (3-year average in £000) British Raw Material Imports Produced by Africans in the Americas (3-year average in £000) Quantity of Redwoods, Gum Senegal, and Gum Arabic Imported into England from Western Africa, 1750–1807 (6-year totals in tons) Export of English Woollens to Atlantic Markets, 1699–1856 Linens Imported into England, Re-exported and Retained, 1699–1856 (in £000) Domestic and Foreign Linens Exported from England,

	Tables	xiii
9.4	Shares of American Regions in the Export of British Linen Textile from England and from Scotland, 1725-	
	1736, 1772–1775	427
9.5	East India Textiles Ordered by the English East India Company, 1661–1694 (quantity in pieces, annual average)	430
9.6	Distribution of Gross Output Value of British Cottons Between Exports and Domestic Consumption, 1760–1856	436
9.7	Distribution of English Cotton Checks Exports in Selected Years	437
9.8	Competing Exports of East India and English Cotton Goods from England to Western Africa, 1751–1850	444
9.9	Regional Distribution of British Cottons Exported, 1699–1856 (in percentages)	448
9.10	Share of Atlantic Markets in the Export of British Metal Products, 1699–1856	456
9.11	Share of Atlantic Markets in Total Quantity of British Wrought Iron and Nails Exported, 1700–1800	457
	1 , ,	137

Introduction

I.I THE PROBLEM

IN THE LATE 1930S AND EARLY 1940S the contribution of African people to the economic development of parts of Western Europe featured in the work of four scholars of African descent in the Americas. In a book published in 1938, C. L. R. James made some brief remarks on the link between French industrial progress in the eighteenth century and the French American colony of Saint Domingo, modern Haiti:

In 1789 the French West Indian colony of San Domingo supplied two-thirds of the overseas trade of France and was the greatest individual market for the European slave-trade. It was an integral part of the economic life of the age, the greatest colony of the world, the pride of France, and the envy of every other imperialist nation. The whole structure rested on the labour of half-a-million [African] slaves.¹

He asserted that virtually all the industries that developed in France in the eighteenth century originated from the production of manufactures for the slave trade in Western Africa or for export to the French American colonies: "The capital from the slave trade fertilized them..."

Limited to a few pages, James did not pursue the subject in any detail. That was not the objective of his study. His book was intended to demonstrate that enslaved Africans in the Americas did not accept slavery passively. Confronted with all the instruments of physical and psychological violence at the disposal of the slaveholding class, they employed their mental and physical energy to resist slavery. The book is devoted to a

C. L. R. James, The Black Jacobins: Toussaint L'Ouverture and the San Domingo Revolution (New York: Vintage Books, Random House, 1963; first published, New York: Dial Press, 1938), p. ix.

² Ibid., p. 48.

detailed study of the most successful of such resistance - the 1790s revolution in Saint Domingo carried out by enslaved Africans. As James put it:

The revolt is the only successful slave revolt in history, and the odds it had to overcome is evidence of the magnitude of the interests that were involved. The transformation of slaves, trembling in hundreds before a single white man, into a people able to organise themselves and defeat the most powerful European nations of their day, is one of the great epics of revolutionary struggle and achievement. Why and how this happened is the theme of this book.³

Earlier in the 1930s a black economist at Howard University, Dr. Abram Harris, conceived an ambitious research project that would demonstrate the role of Africans in the economic development of the Western World (Europe and the United States of America). The project did not take off. The book ultimately published in 1936 focused on a different theme. However, an outline of the early parts of the originally planned work was presented in the first chapter of the published book. In the same year a graduate student at Howard University, Wilson Williams, wrote a Master's dissertation on the role of Africans in the rise of capitalism. Again, the subject was not treated in any detail as the length of the thesis makes clear – 48 typescript pages.

It is, therefore, fair to say that the first elaborate study of the contribution of African people to the economic development of some parts of Western Europe was by Eric Williams. This is contained in his seminal work, Capitalism and Slavery, published in 1944. In the preface Williams noted the state of scholarship on the Industrial Revolution as of the early 1940s. He believed that scholarly and popular books had more or less covered adequately the progress of the Industrial Revolution over time, as well as the period preceding it. But scholarship was yet to focus on "the world-wide and interrelated nature of the commerce" of the preceding period, "its direct effect upon the development of the Industrial Revolution, and the heritage which it has left even upon the civilization of today..." The contribution of Capitalism and Slavery was intended to be located within the latter broad problem area. This contribution centered on the role of African people. "The present study," declared Williams, "is an attempt to place in historical perspective the relationship between early

³ *Ibid.*, p. ix.

⁴ Abram L. Harris, *The Negro as Capitalist: A Study of Banking and Business Among American Negroes* (Philadelphia: Published for the American Academy of Political and Social Science by the Rumford Press, 1936), p. ix.

Wilson E. Williams, "Africa and the Rise of Capitalism" (Master's thesis, Howard University, 1936).

⁶ Eric Williams, Capitalism and Slavery (Chapel Hill: University of North Carolina Press, 1944).

⁷ *Ibid.*, p. v.

capitalism as exemplified by Great Britain, and the Negro slave trade, Negro slavery and the general colonial trade of the seventeenth and eighteenth centuries." To ensure that the reader was not misled to expect more than the book offers, it is made clear from the onset that the book "is strictly an economic study of the role of Negro slavery and the slave trade in providing the capital which financed the Industrial Revolution in England and of mature industrial capitalism in destroying the slave system."

Thus Eric Williams's study of African people's contribution to the origin of the Industrial Revolution in England is centered on private profits arising from economic activities connected directly and indirectly with Africans and their descendants. A model constructed on the notion of the triangular trade structures the study coherently. The Atlantic slave trade covers the first two sides of the triangle: British manufactures were sold in Western Africa in exchange for captured Africans for a profit; shipped to the West Indies (the second side of the triangle), the African captives were sold to planters for a second set of profits; enslaved and put to work in the West Indies, the Africans produced a variety of plantation crops – sugar, cotton, indigo, cocoa, etc. – that were shipped to England (the third side of the triangle) and sold in exchange for British manufactures and services yielding a third set of profits. Williams pointed out that the triangular trade,

gave a triple stimulus to British industry. The Negro[e]s were purchased with British manufactures; transported to the plantations, they produced sugar, cotton, indigo, molasses and other tropical products, the processing of which created new industries in England; while the maintenance of the Negroes and their owners on the plantations provided another market for British industry, New England agriculture and the New Foundland fisheries. By 1750 there was hardly a trading or a manufacturing town in England which was not in some way connected with the triangular or direct colonial trade. The profits obtained provided one of the main streams of that accumulation of capital in England which financed the Industrial Revolution.¹⁰

Eric Williams did not state precisely what range of activities is covered by his notion of profits. From a close and careful reading, it is reasonable to say that the notion of private profits applied in the book implies profits from all activities connected directly and indirectly with Africans and their descendants: profits realized by manufacturers whose goods were exported to Western Africa for the slave trade and to the West Indies; profits realized by the manufacturers who employed raw materials produced by enslaved Africans in the West Indies; profits realized by the planters who employed enslaved Africans to produce plantation products for export; profits realized by traders involved in the buying and selling of Africans, the commodities produced by them in the West Indies, and the

⁸ *Ibid.*, p. v. ⁹ *Ibid.*, p. v. ¹⁰ *Ibid.*, p. 52.

manufactures exchanged at all levels; profits realized by the owners of the ships employed at all levels and by the builders and repairers of those ships; profits realized by financiers; and profits realized from all activities induced by the linkage effects of the triangular trade and the direct colonial trade.

Understood in this broad fashion, the various issues examined by Williams fall into place consistently with the theme of profits specified in the Preface. The discussion of the various manufacturing sectors, the ship-building industry, the growth of population in the port towns trading in slaves and slave-produced West Indian commodities, and in manufacturing centers producing goods for the slave trade and for export to the West Indies – all these fit into the profit theme only when the notion of private profits is understood in the broad sense stated previously. The point that "The British Empire was 'a magnificent superstructure of American commerce and naval power on an African foundation'," quoting Postlethwayt, should also be understood in that sense.

As far as I am aware, there were no noticeable reactions to the brief remarks made on the role of Africans in the development of the Western World before Eric Williams's *Capitalism and Slavery*. That subject became an important academic issue following the publication of the book. The distraction caused by World War II seems to have delayed the reaction of scholars somewhat. But from the 1960s the responses began. Because of Eric Williams's focus on profits, the debate, which he provoked, on the contribution of Africans to the Industrial Revolution in England was centered similarly on the subject of profits.¹² The profits contested were

¹¹ *Ibid.*, p. 52.

K. G. Davies, "Essays in Bibliography and Criticism, XLIV: Empire and Capital," Economic History Review, 2nd ser. 13 (1960), 105-10; Roger T. Anstey, "Capitalism and Slavery: A Critique," Economic History Review, 2nd ser. 21 (Aug. 1968), 307-20; Roger T. Anstey, "The Volume and Profitability of British Slave Trade, 1761-1807," in Race and Slavery in the Western Hemisphere: Quantitative Studies, Stanley L. Engerman and Eugene D. Genovese, eds. (Princeton, New Jersey: Princeton University Press, 1975); Roger T. Anstey, The Atlantic Slave Trade and British Abolition, 1760-1810 (London: Macmillan, 1975), pp. 38-57; F. E. Hyde, B. B. Parkinson, and S. Marriner, "The Nature and Profitability of the Liverpool Slave Trade," Economic History Review, 2d ser. 5, no. 3 (1953), 368-77; Stanley L. Engerman, "The Slave Trade and British Capital Formation in the Eighteenth Century: A Comment on the Williams Thesis," The Business History Review, 46 (Winter, 1972), 430-43; David Richardson, "Profits in the Liverpool Slave Trade: The Accounts of William Davenport, 1757-84," in Liverpool, the African Slave Trade, and Abolition: Essays to Illustrate Current Knowledge and Research, Roger Anstey and P. E. H. Hair, eds. (Historic Society of Lancashire and Cheshire Occasional Series Vol. 2, 1976), pp. 60-90; David Richardson, "Profitability in the Bristol-Liverpool Slave Trade," Revue francaise d'histoire d'outre-mer, 62, nos. 226-227 (1975), 301-08; Stanley L. Engerman, "Comments on Richardson and Boulle and the 'Williams Thesis'," Revue francaise d'histoire d'outre-mer, 62, nos. 226-227

almost exclusively those directly connected with the Atlantic slave trade. The questions in the debate were framed in terms of the percentage level of return on the slave traders' investment, the overall magnitude of the profits and of that portion invested in manufacturing industries, and the ratio of the latter to the total amount of capital invested in manufacturing industries in England during the slave-trade era. Apart from about four contributions, profits from the employment of enslaved Africans to produce export commodities in the West Indies were rarely considered, let alone profits from the host of activities mentioned earlier. It is thus fair to say that the voluminous critique of the Williams profits thesis did not incorporate all the elements that could be reasonably included.

Yet, it can still be said that the Williams profits thesis does not fully address the contribution of Africans to the structural transformation of the English economy between 1650 and 1850, which culminated in the Industrial Revolution during the period, even when his notion of profits is understood broadly. In the first place, Williams did not develop the profit argument in sufficient detail. As of the time he wrote, no systematic measurement of the rates of profit in the various activities relevant to his thesis existed, and it would have been practically impossible for him to conduct the research needed for that purpose all by himself if he had wanted to do so. Hence, detailed quantitative analysis could not be deployed to support the profit argument. Apart from the empirical foundation, the logic of the argument is also not worked out systematically in detail. It seems this was a matter of choice. The role of Africans in the Industrial Revolution was really not the central concern of Williams. The main focus of Capitalism and Slavery, as the framing of the title makes clear, was the causal relationship between industrial capitalism in England and the abolition of the slave trade and slavery by the British government. In fact, this was the only subject of his Oxford University Ph.D. dissertation, entitled, "The Economic Aspects of the Abolition of the West Indian Slave Trade and Slavery." The contribution of Africans to the Industrial Revolution was

(1975), 331–36; R. W. Fogel and S. L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (London: Wildwood House, 1974); R. B. Sheridan, "The Wealth of Jamaica in the Eighteenth Century," *Economic History Review*, 2d ser. 18 (Aug. 1965), 292–311; Robert Paul Thomas, "The Sugar Colonies of the Old Empire: Profit or Loss for Great Britain?" *Economic History Review*, 2d ser. 21 (April 1968), 30–45; R. B. Sheridan, "The Wealth of Jamaica in the Eighteenth Century: A Rejoinder," *Economic History Review*, 2d ser. 21 (April 1968), 46–61; J. R. Ward, "The Profitability of Sugar Planting in the British West Indies, 1650–1834," *Economic History Review*, 2d ser. 31 (May, 1978), 197–213; Robert Paul Thomas and Richard Nelson Bean, "The Fishers of Men: The Profits of the Slave Trade," *Journal of Economic History*, 34 (Dec. 1974), 885–914.

Sheridan, "The Wealth of Jamaica"; Thomas, "The Sugar Colonies of the Old Empire"; Ward, "The Profitability of Sugar Planting in the British West Indies"; Fogel and Engerman. Time on the Cross.

added later, while he was teaching at Howard University. ¹⁴ Of the 12 main chapters of the book, only 2 – Chapters 3 (30 pages) and 5 (10 pages) – are focused directly on that subject; that is, less than one-fifth of the book. Had Williams chosen to focus mainly on the role of Africans he would have framed the title of his book differently, possibly, *Slavery and Capitalism*, and he would have devoted more space to his arguments on the subject.

But even if the profit argument is empirically and logically developed in full, it will still not demonstrate fully the contribution of African people to the Industrial Revolution. Eric Williams's emphasis on profits would seem to have been influenced by the dominant macro-economic analysis of his time, the Keynesian revolution, which treated investment as an autonomous variable related primarily to the availability of investible funds. 15 In a development analysis so conducted profits are a critical element, being the main source of funds for investment. Of course, Keynesian macro-economics was designed not for an industrializing economy in a pre-industrial world, but for a mature industrialized economy operating far below capacity. Where investment is not an autonomous variable, but is, on the contrary, dependent on the availability of market opportunities for productive investment and for the development of new technologies and new forms of organizing production, the issue of profits becomes less important and ceases to occupy center stage. There can be no better example to buttress this point than the problem of the Dutch, who, in the late seventeenth and eighteenth centuries, had an abundance of investible funds but had little market opportunities to invest them productively.¹⁶

One more point to note – the profit argument in *Capitalism and Slavery* is conducted within a rather narrow geographical context. Apart from occasional references to mainland British America, the argument is limited to the British Caribbean. To demonstrate fully and effectively the contribution of African people to the Industrial Revolution, the geographical context needs to be expanded considerably. The entire Atlantic basin should be the focus of analysis.

The foregoing comments in no way diminish the lasting value of *Capitalism and Slavery*. The main arguments concerning the economic basis of abolition have stood the test of time. In spite of the voluminous criticism

Richard B. Sheridan, "Eric Williams and Capitalism and Slavery: A Biographical and Historiographical Essay," in Barbara L. Solow and Stanley L. Engerman (editors), British Capitalism and Caribbean Slavery: The Legacy of Eric Williams (Cambridge: Cambridge University Press, 1987), pp. 318–319.

J. E. Inikori, "Market Structure and the Profits of the British African Trade in the Late Eighteenth Century," *Journal of Economic History*, Vol. XLI, No. 4 (Dec. 1981), p. 745.

¹⁶ See Eric J. Hobsbawm, "The General Crisis of the European Economy in the 17th Century," *Past & Present*, 5 (1954), pp. 33–53; 6 (1954), pp. 44–65.

by scholars since the 1960s, those arguments can still be shown to be basically valid, logically and empirically. There can be no doubt that Eric Williams raised an important academic issue when he drew the attention of scholars to the contribution of African people to the Industrial Revolution in England. His profits thesis is certainly important. The capitalist system cannot function without profits. However, the research of the past five decades, both empirical and theoretical (especially in the area of development theory), now makes it possible to go beyond the consideration of profits in demonstrating the contribution of Africans to the Industrial Revolution.

The present study examines the role of Africans in England's industrialization within the context of international trade and economic development. The Industrial Revolution is studied as the final outcome of a successful industrialization process covering several centuries. This process occurred in a world where an integrated international economy was yet to be fully developed. The task for historical analysis is to show, in part, that an international economy of considerable size did evolve during the period of study. As shown in the chapters that follow, this is a subject that has received much attention in the literature under the familiar theme of the "Commercial Revolution." Yet no elaborately documented effort was made hitherto to measure precisely the overall size of the nucleus of the evolving international economy – the Atlantic World economy – and to show its growth over the 200 years from the mid-seventeenth to the mid-nineteenth century, the critical period for a serious study of the forces that produced the Industrial Revolution.

A logically consistent procedure for assessing the contribution of Africans to the Industrial Revolution, as conceived, would require that first and foremost it be established that international trade was a critical factor in the successful completion of England's industrialization. The latter subject has not received the kind of attention it deserves. There is not a single book-length study of the role of international trade in England's industrialization. Eric Williams was right when he stated, as shown above, that the effect of the "world-wide" commerce of the seventeenth and eighteenth centuries on England's industrialization had not been studied in detail as of the time he wrote. Almost three decades later H. E. S. Fisher repeated the observation that, "surprisingly little detailed examination has been made... of the actual relationships between trade growth and the general development of the [English] economy..." Again, almost three decades later, very little has changed. It is fair to say that this study

H. E. S. Fisher, The Portugal Trade: A Study of Anglo-Portuguese Commerce 1700-1770 (London: Methuen, 1971), p. 125. Fisher attempted in Chapter 9 of his book to examine "some of the relationships arising from Anglo-Portuguese trade" (p. 125).

represents the first lengthy examination of the role of international trade in England's industrialization process.

The key issues to deal with in relating international trade to the development process in England may be stated as follows: 1) the influence of international trade on the evolution of interest groups and on changes in their relative strengths and weaknesses over time, and the way all this affected the political process, the character of the state and its agencies, the rules and regulations that evolved, and the enforcement mechanisms fashioned; 2) the influence of the evolving international market on the development and productive utilization of resources; 3) the role of imported manufactures in the development of new consumer tastes and, subsequently, new industries; 4) the role of manufactured re-exports by British merchants in creating overseas markets for manufactures that could later be taken over by British manufacturers; 5) the role of international trade in the provision of vital raw materials for manufacturing industries on advantageous terms; 6) the role of entrepôt trade in manufactures and tropical produce in the growth of service incomes; 7) the role of international trade in the development of shipping and financial institutions; 8) the contribution of the export sector in the general development of division of labor over time and the expansion of the domestic market; 9) the role of expanding overseas sales in creating favorable conditions for the development and adoption of new technologies and new forms of organizing production.

Considerable debate surrounds some of these issues. To be persuasive, arguments need to be founded on detailed empirical evidence, quantitative and qualitative. Comparative analysis at the level of relevant European nations will help to show in a sharp relief the most critical factors in the equation. Even more important in this mode of analysis is a comparative study of the historical experiences of the major regions of England as the national industrialization process progressed over time. By examining the differing paths followed by these regions and the outcome, we gain a much better understanding of the nature of England's industrialization process, thereby making it much easier to identify the factors that were most critical in the successful completion of the process.

Once the role of international trade in England's industrialization has been demonstrated, the main burden of analysis focuses on the extent to which the evolution of the international economy during the period rested on the shoulders of Africans. Africans' contribution centered on the evolution of the Atlantic World economic system. The main thrust of analysis, therefore, has to be on the role of Africans in the growth and development of the Atlantic World economy and of the quantitative and qualitative place of the Atlantic World economy in England's international trade during the period of study. This mode of analysis requires an examination of the role of Africans on the African continent and, more important, those in the Americas, not just British America but all of the Americas. Similarly, all of

the Americas and their complex inter-connections with different parts of Europe must constitute the focus of examination when assessing the place of the Atlantic World economy in England's international trade, rather than the focus being limited to British America.

Because of recent trends in the literature, it is pertinent to comment briefly at the onset on the use of the familiar term *Industrial Revolution* in this study. British and other historians influenced by the apparent weak position of the British economy in the current world economic order, relative to the giants – the United States, Japan, and Germany – have tended to underrate in recent times the historical importance of the changes that occurred in England between 1750 and 1850. Emphasis is on how slow the growth of real national income per capita was during the period and on the persistence of traditional forms of technology and organization in manufacturing, measured in terms of national average across all industries. Arising from this, the question is raised whether or not it is appropriate to use the term Industrial Revolution in describing the changes that took place during the period.¹⁸

The term Industrial Revolution, as it applies to British economic history, means different things to different historians. To illustrate, for Mathias the term refers to the structural change that occurred in England during the period in question; but for Wrigley the term describes a major discontinuity in the rate of economic growth leading to increases in real incomes per capita over time to levels unprecedented in pre-industrial societies.¹⁹ The use of the term in this study is closer to the position of Mathias than that of Wrigley. The term is applied to describe developments in industrial production both at the regional and at the national levels. The use is justified on the ground that the technological and socio-economic changes associated with England's successful industrialization were so great and so radical that it is appropriate to describe the transformation as revolutionary – something no previous society anywhere in the world had experienced – the length of time it took to bring about the changes notwithstanding. This seems also to be roughly the position of Crafts and his collaborators:

We repeat our belief that a key feature of the British industrial revolution was that the trend rate of growth of industrial output increased steadily over several decades, from 0.65 percent prior to the mid-1770s to a peak of 3.7 percent in the mid-1830s.²⁰

For a recent survey of the literature on the subject, see Rondo Cameron, "The Industrial Revolution: Fact or Fiction?" Contention, Vol. 4, No. 1 (Fall 1994), pp. 163–188.

For this view of the positions by Mathias and Wrigley, see N. F. R. Crafts and T. C. Mills, "The industrial revolution as a macroeconomic epoch: an alternative view," *Economic History Review*, XLVII, 4 (1994), p. 771.

²⁰ *Ibid.*, pp. 771–772.

This rapid growth of industrial output is partly a reflection of the ongoing revolutionary changes in the technology and organization of industrial production. The magnitude of the change is better observed in the key industries and in the key regions that led the process, a phenomenon concealed largely by the construction of national aggregate measurements.

I.2 CONCEPTUAL FRAMEWORK

It is argued in this study that the Industrial Revolution in England was the first successful case of import substitution industrialization (ISI) in history. To explain why the process was successful it will be helpful to employ the conceptual framework of ISI fashioned by several development economists going back to the 1950s. By way of definition, the term ISI refers to a process of industrial development propelled by the substitution of domestically produced manufactures for previously imported ones. Early modern writers who employed the term in their analysis of the development process include Albert O. Hirschman²¹ and Hollis B. Chenery.²² It has been suggested that Chenery was the first to apply the term as an analytical and measurable concept.²³ Chenery's problem was to identify the factors that could cause the industrial sectors to grow more rapidly than the rest of the economy during the development process and to measure their relative contributions. These factors he identified as "(1) the substitution of domestic production for imports; (2) growth in final use of industrial products; (3) growth in intermediate demand stemming from (1) and (2)."24

The second factor needs some elaboration. Growth in the final use of industrial products may come from one, or a combination, of three sources: a change in the composition of domestic final demand arising from increases in per capita income; a change in the composition of domestic final demand due to a social redistribution of income; or the growth of external demand for manufactures. Increases in per capita income bias demand in favor of manufactured goods. The main explanation for this is Engel's Law, that as the incomes of consumers increase beyond a certain level the proportion spent on food declines, while that on manufactures increases. On the other hand, a redistribution of income in favor of the lower classes shifts demand in favor of manufactured mass consumer goods, while a redistribution in favor of the upper classes concentrates demand on luxury products.

Albert O. Hirschman, The Strategy of Economic Development (New Haven: Yale University Press, 1958).

Hollis B. Chenery, "Patterns of Industrial Growth," *American Economic Review*, Vol. 50 (1960), pp. 624–654.

Jaleel Ahmad, *Import Substitution*, *Trade and Development* (Greenwich, CT: JAI, 1978), p. 11.

²⁴ Chenery, "Patterns of Industrial Growth," p. 639.

The third factor, the growth of intermediate demand stemming from the first and second factors, depends very much on the size of the domestic market because of the special properties of intermediate and capital goods, as will be shown later in this section. However, a small country with an initially narrow domestic market can expand production for export in import substitution consumer goods industries. This will extend sufficiently the domestic market for intermediate and capital goods to allow the country to produce them efficiently domestically, instead of importing all or most of them.

The foregoing analysis maps out conceptually the factors to look for and measure in explaining disproportionate growth of any or all the industrial sectors. Further development of the ISI concept and its application to the study of historical cases in the more recent past reveal the essential characteristics of this pattern of industrial development. One important characteristic concerns the identifiable stages of ISI. Some analysts have identified two, others three, phases of the process. All analysts identify the first and easy phase with the domestic production of previously imported consumer goods. Analysts such as Stephan Haggard place the production of intermediate goods and consumer durables in a separate phase, the second, and the production of machinery and equipment in another, the third; whereas others such as Bela Balassa place the two in one phase, the second.²⁵ The sub-division of the process into two or three phases is not particularly important. What is more important is the separation of the easy first stage, the production of consumer goods, from the subsequent extension of production to intermediate and capital goods.

A major difference between the more recent process and that of England should be noted at this point. For the more recent process, domestic production of import substitutes entailed the import of intermediate and capital goods. In the case of England, although some intermediate goods, such as iron, were imported, no capital goods were imported. The suppliers of the imported manufactures being replaced employed traditional techniques dependent on human skills, rather than the application of machines. The problem the English manufacturers had to overcome initially was the perfection of these human skills and the efficient organization of the production process. For this reason, the extension of domestic manufacturing to the production of intermediate and capital goods in England meant the invention and adoption of new technologies, whereas in the more recent process it was a matter of producing substitutes for previously imported

Stephan Haggard, Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries (Ithaca, NY: Cornell University Press, 1990), p. 25; Bela Balassa, The Process of Industrial Development and Alternative Development Strategies (Princeton, NJ: Princeton University, Department of Economics, International Finance Section, 1981).

intermediate and capital goods. Although the qualitative difference is significant, the economics of both processes and the factors determining success or failure are basically the same.

During the first and relatively easy phase, the sectors experiencing import substitution grow more rapidly than the rest of the economy. Once domestic production of import substitutes has been sufficiently expanded to the limits of the pre-existing demand, however, the growth rate of output declines to the rate of increase in domestic consumption. At this point, maintaining high industrial growth rates requires moving into either production for export or second-stage import substitution, or both.²⁶ Another important characteristic of ISI is the state's provision of protection for the import substitution industries through the use of import duties, quotas, or prohibition. Depending on whether protection takes the form of moderate or high import duties or outright prohibition, ISI tends to produce sellers' markets, especially in small countries with relatively narrow domestic markets. This limits competition and gives rise to high production costs, which in turn limit the growth of sales and, therefore, output. This being the case, one may question the wisdom of employing the ISI strategy. The reason is simple. Once the relative advantage of foreign suppliers of imported manufactures is established, it is difficult for inexperienced local producers to emerge and immediately compete successfully without some form of initial protection by the state. This is the infant industry notion of ISI. The analytical task is to identify the conditions and policy choices that make it possible to build competition into the process early enough to avoid the entrenchment of inefficient production structure.

What is more, moving from the first and easy phase of consumer goods production to the later stages in which intermediate and capital goods are produced entails considerable difficulties arising from the peculiar characteristics of intermediate and capital goods. These products tend to be capital-intensive and are subject to significant economies of scale. For efficient production, there has to be a sufficiently large market as costs rise quickly at lower levels of output.²⁷

Empirical studies of the more recent cases of ISI offer a helpful opportunity for comparative analysis that points out the critical factors determining success or failure. Haggard and Balassa have examined variations in the application of the ISI strategy of industrial development across countries. Haggard compared the cases of Brazil, Mexico, South Korea, Taiwan, Singapore, and Hong Kong. Starting their process in 1935, Brazil and Mexico followed the domestic production of import substitutes virtu-

²⁶ Balassa, The Process of Industrial Development, p. 7.

²⁷ Ibid., p. 7.

Haggard, Pathways from the Periphery; Balassa, The Process of Industrial Development.

ally for the domestic market alone from the easy phase to the production of intermediate and capital goods. Not until the problems associated with this variant of the ISI strategy had become socially and politically critical in the late 1960s did these countries modify their strategy and begin aggressive promotion of manufactured exports. South Korea and Taiwan, on the other hand, began their ISI process in 1945, and as soon as the first and easy phase was completed they pursued aggressive export promotion that encouraged the production of labor-intensive goods for export in the import substitution industries. As sales and output grew rapidly following the combined impact of export and domestic demand, the domestic market for intermediate and capital goods expanded to a point where those goods could be produced domestically on a large scale that permitted economies of scale to be secured. This also made it possible for manufactured exports to be quickly upgraded to include intermediate and capital goods. Singapore and Hong Kong belong to a category described in this study as ISI cum RSI – import substitution industrialization plus re-export substitution industrialization. The process of industrial development in these two countries derived from a preceding entrepôt trade in manufactures. Hence, as Haggard's study shows, ISI moved quickly into the production of manufactured exports as substitutes for manufactured re-exports.

Balassa conducted a broader comparative study in which he divided the ISI countries studied into three categories: those that embarked on aggressive promotion of export production of manufactures after the completion of first-stage ISI (Korea, Singapore, and Taiwan); those that moved into second-stage ISI (production of consumer durables, intermediate goods, and machinery for the domestic market) after completing the first stage but later adopted export promotion policies in the face of difficulties (Brazil, Argentina, Colombia, and Mexico); and those that limited production virtually to the domestic market for a prolonged period of time (India, Chile, and Uruguay). The study shows that the rate of capacity utilization was highest in the first group of countries and increased considerably in the second group after the countries adopted export promotion policies, while it remained low in the third group. Balassa's summary of his findings is instructive:

Manufacturing employment increased by 10 to 12 percent a year in Korea and Taiwan, leading to reductions in unemployment rates. *Pari passu* with the decline in unemployment, real wages increased rapidly as the demand for labor on the part of the manufacturing sector grew faster than the rate at which labor was released by the primary sector. After the 1966 policy reforms, real wages increased also in Brazil. By contrast, real wages declined in India, Chile, and Uruguay. Furthermore, income increments were achieved at a considerably lower cost in terms of investment in countries that consistently followed outward-oriented strategy [export promotion].... The operation of these factors gave rise to a positive correlation between exports and economic growth. The three Far Eastern

countries had the highest GNP growth rates throughout the period [1960-73], and the four Latin American countries that undertook policy reforms [adoption of export promotion] considerably improved their growth performance after the reforms were instituted, while India, Chile, and Uruguay remained at the bottom of the growth league.²⁹

These comparative studies of the more recent ISI development trajectories may help deepen our understanding of the British process under examination. At appropriate points in a few of the chapters that follow, some direct comparison with the ISI in England is conducted. More generally, the ISI conceptual framework and the comparative empirical studies inform the organization and analysis of the data presented in the study.

An important issue that needs to be addressed in the conceptual framework is the role of culture. Is culture an independent variable in the process of industrialization? How do we conceptualize the role of culture in the economic development process over the long run?

Some decades ago the economic success of the Western World and the economic failures of the rest of the world were both explained in cultural terms. Western culture was presented as conducive to development, whereas culture in the rest of the world was seen as a constraint to development. The one case of success in those decades, Japan, created some explanatory awkwardness, which was taken care of by arguing that Japanese culture contained elements similar, if not identical, to the essential elements in Western culture. It was this cultural similarity, according to the argument, that made it possible for Japan to succeed while the rest of the non-Western World failed. A comparison of Japan and China often provided the empirical details for the argument.

The China-Japan comparison has come under a devastating critique in the past decades. It is argued that culturally pre-capitalist Japan was far more like China than it was like pre-capitalist Western Europe.³⁰ More recent detailed research now shows that modern economic development in

Frances V. Moulder, Japan, China, and the modern world economy: Toward a reinterpretation of East Asian development, ca. 1600 to ca. 1918 (Cambridge: Cambridge University Press, 1977).

Balassa, The Process of Industrial Development, pp. 17, 18. Balassa's findings are consistent with those of other studies: Werner Baer and Andrea Maneschi, "Import Substitution, Stagnation and Structural Change: An Interpretation of the Brazilian Case," Journal of Developing Areas, 5 (1971), pp. 177–192; Henry J. Bruton, "The Import Substitution Strategy of Economic Development: A Survey," Pakistan Development Review, 10 (1970), pp. 123–146; David Felix, "The Dilemma of Import Substitution – Argentina," in Gustav F. Papanek (ed.), Development Policy – Theory and Practice (Cambridge, Mass.: Havard University Press, 1968), pp. 55–91; Anne O. Krueger, The Benefits and Costs of Import Substitution in India: A Microeconomic Study (Minneapolis: University of Minnesota Press, 1975); David Morawetz, "Employment Implications of Industrialization in Developing Countries: A Survey," Economic Journal, 84 (1974), pp. 491–542.

China up to the mid-eighteenth century compares favorably with the process in Western Europe.³¹ The success story of the industrial achievements of the "Asian Tigers" (South Korea, Taiwan, Hong Kong, and Singapore) and the explosive growth of the Chinese economy since the government adopted a more market-oriented strategy have all made it difficult to sustain the cultural explanation.³² Its application to England's industrialization is now rare, even though its reappearance in future texts may not be ruled out. One area where its application has flourished in recent times is African history, after the critique of Tony Hopkins in the early 1970s.³³ One strand of the current application is that African culture, as expressed in the land laws, prevented the development of private property rights in land during the Atlantic slave-trade era.³⁴ This argument has no empirical or logical foundation. It was the abundance of land in relation to population and limited opportunity to produce agricultural commodities for market exchange (especially inter-continental market exchange), that delayed the development of private property rights in land in sub-Saharan Africa. When market opportunities emerged in the late nineteenth and twentieth centuries, as population grew and agricultural production for export and for the domestic market expanded no culture or land laws prevented the evolution of private property rights in land in the major African countries.35

Historians employing comparative perspective in the study of long-term historical processes now generally agree that culture is not the main engine of history. In her study of the thirteenth-century world trading system centered in the Mediterranean, Abu-Lughod concluded that the collapse of that system and the success of the later system founded in the Atlantic basin

Kenneth Pomeranz, The Great Divergence: Europe, China, and the making of the Modern World Economy (Princeton, NJ: Princeton University Press, 2000); Xu Dixin and Wu Chengming (eds.), Chinese Capitalism, 1522–1840 (London: Macmillan; New York: St. Martins, 2000).

In fact, a reverse cultural explanation of the recent Asian successes has been attempted. Confucianism, which was earlier presented as a constraint to Asian development, has been employed to explain the successes. See Hung-chao Tai (ed.), Confucianism and Economic Development: An Oriental Alternative? (Washington, D.C.: The Washington Institute Press, 1989).

A. G. Hopkins, An Economic History of West Africa (London: Longman, 1973).
 John Thornton, Africa and Africans in the making of the Atlantic World, 1400–1680 (New York: Cambridge University Press, 1992).

Joseph E. Inikori, "Slavery in Africa and the Transatlantic Slave Trade," in Alusine Jalloh and Stephen E. Maizlish (eds.), The African Diaspora (College Station: Texas A & M University Press, 1996), pp. 61–62. Some historians explain in cultural terms what should be explained in terms of limited market opportunity. This is where the point by Tony Hopkins, that market principles should be applied in the study of precolonial African economic history, is significant. See Hopkins, An Economic History of West Africa.

from the sixteenth century by West European powers cannot be explained in cultural terms: No set of religious beliefs or values was needed to succeed in the thirteenth century and no set of religious beliefs or values can explain the successful development of the world trading system and the world economy from the sixteenth century.³⁶ A similar point was made more elaborately by Johan Goudsblom, Eric Jones, and Stephen Mennell: "We share a suspicion of all forms of mentalistic explanation, where culture, religion, or ideology is seen as the main engine of history."³⁷

So, what kind of theoretical construct would more realistically connect culture to the development process? This task was attempted in a preliminary fashion in the 1950s by Arthur Lewis when he asked and answered a series of penetrating questions:

What causes a nation to create institutions which are favourable, rather than those which are inimical to growth? Is a part of the answer to be found in the different valuations which different societies place upon goods and services relatively to their valuation of such non-material satisfactions as leisure, security, equality, good fellowship or religious salvation? . . . What causes people to have one set of beliefs, rather than another set of beliefs, more or less favourable to growth? Are the differences of beliefs and institutions due to differences of race, or of geography or is it just historical accident? . . . How do beliefs and institutions change? Why do they change in ways favourable to or hostile to growth? How does growth itself react upon them? Is growth cumulative, in the sense that once it has begun, beliefs and

Janet Abu-Lughod, Before European Hegemony: The World System A. D. 1250-1350 (New York: Oxford University Press, 1989); Janet Lippman Abu-Lughod, The World System in the Thirteenth Century: Dead-End or Precursor? (Washington, D.C.: American Historical Association Essays on Global and Comparative History, 1993).

Stephen Mennell, "Bringing the Very Long Term Back In," in Johan Goudsblom, Eric Jones, and Stephen Mennell, The Course of Human History: Economic Growth, Social Process, and Civilization (New York: M. E. Sharpe, 1996), p. 6. They went further to say: "This may come across in what we have written as a hostility toward explanations derived from the work of Max Weber. Whether Weber himself can be blamed for the way his work has been used since his death is questionable. In his defense, it can be said that he was himself reacting against idealistic explanations in the German tradition, as well as against the vulgar 'second International' Marxism of his time.... Too often the legacy of his work, especially in the Anglophone academic world, has been to cause sociologists great excitement whenever they spy anything remotely resembling a Protestant ethic, to be too willing – in our opinion - to acquiesce in idealistic, cultural explanations of differences in social development, and too ready to look for unique cultural ingredients in a supposedly unique European track of development" (Ibid., p. 7). See also Andre Gunder Frank, ReOrient: Global Economy in the Asian Age (Berkeley: University of California Press, 1998); Jack Goody, The East in the West (Cambridge: Cambridge University Press, 1998). For recent opposing views, see David S. Landes, The Wealth and Poverty of Nations: Why Some are so Rich and Some are so Poor (New York: W. W. Norton, 1998); David Eltis, The Rise of African Slavery in the Americas (Cambridge: Cambridge University Press, 2000).

institutions are inevitably fashioned in such a way as to facilitate further growth; or is it self-arresting, in the dialectical sense that new beliefs and institutions are inevitably created to resist growth, and to slow it down? Are there self-reversing swings over the centuries in human attitudes and institutions, which make the process of growth inevitably cyclical?³⁸

His answer to these questions suggests how culture may be realistically connected conceptually to the development process over the very long run:

The continuance of a social institution in a particular form depends upon its convenience, upon belief in its rectitude, and upon force. If growth begins to occur, all these sanctions are eroded. The institution ceases to be convenient, because it stands in the way of opportunities for economic advancement. People then cease to believe in it. Priests, lawyers, economists, and other philosophers, who used to justify it in terms of their various dogmas, begin to reject the old dogmas, and to replace them by new dogmas more appropriate to the changing situation. The balance of political power also alters. For new men are raised up by economic growth into positions of wealth and status; they challenge the old ruling classes; acquire political power slowly or in more revolutionary ways; and throw force behind the new instead of the ancient institutions. . . . In the same way, when growth stops, the situations which suited an expanding economy are no longer appropriate. People cease to believe in them; the priests, the lawyers, the economists and the philosophers turn against them, and the powerful groups who favour the *status quo* are able to enforce changes unfavourable to economic growth.³⁹

Douglass North's formal institutional theory⁴⁰ demonstrates rigorously and elaborately the kind of connection suggested by Arthur Lewis. The main objective of North's theory is to show how economics, politics, and culture connect and interact in the long-term process of development to determine the way particular economies perform at a given moment. The building blocks for the theory are relative prices, interest groups, institutions (by which is meant rules and regulations that constrain the choices individuals can make, put in two categories, those made by the state and those sanctioned by culture or ideology), and organizations. Relative prices are the cornerstone of the theory, and rules and regulations are the mechanism through which the process of change is transmitted from relative price change. Interest groups and organizations are the agents through whom relative price change brings about changes in rules and regulations. In the long run, cultural or ideological change and the economic consequences are largely a function of relative price change:

³⁸ W. Arthur Lewis, *The Theory of Economic Growth* (London: George Allen & Unwin, 1955), pp. 11–12.

³⁹ *Ibid.*, p. 143.

⁴⁰ Douglass C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).

Effective traditions of hard work, honesty, and integrity simply lower the cost of transaction and make possible complex, productive exchange. Such traditions are always reinforced by ideologies that undergird those attitudes. Where do these attitudes and ideologies come from and how do they change? The subjective perceptions of the actors are not just culturally derived but are continually being modified by experience that is filtered through existing (culturally determined) mental constructs. Therefore, fundamental changes in relative prices will gradually alter norms and ideologies . . . ⁴¹

Douglass North's conceptualization of how economics connects to politics and to culture or ideology in the long-run development process is essentially in accord with the recent historical literature mentioned earlier and the observed facts of current development processes in the non-Western World. The discussion of social structures and institutional factors, and other arguments in this study are in some way informed by the foregoing conceptual discussion of the role of culture. In particular, the *longue durée* perspective in Chapter 2 makes it possible to see the similarities between the English process and those of the more recent past in the non-Western World.

41 Ibid., p. 138. North realizes that non-economists and some economists may find it mystifying placing such weight on relative prices. But he explains that "relative price changes alter the incentives of individuals in human interaction, and the only other source of such change is a change in tastes" (Ibid., p. 84).