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Joseph E. Inikori

Journal of Global History / Volume 2 / Issue 01 / March 2007, pp 63 - 86

DOI: 10.1017/S1740022807002045, Published online: 11 May 2007

Link to this article: http://journals.cambridge.org/abstract_S1740022807002045

How to cite this article:

Joseph E. Inikori (2007). Africa and the globalization process: western Africa, 1450–1850. *Journal of Global History*, 2, pp 63-86 doi:10.1017/S1740022807002045

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Africa and the globalization process: western Africa, 1450–1850¹

Joseph E. Inikori

Department of History, University of Rochester, Rochester, NY 14627, USA
E-mail: jnikori@rochester.rr.com

Abstract

The article examines the debate on globalization as a historical process and provides a context for the assessment of western Africa's long-run contribution to the process, the main subject of the article. It argues that the process began in the Atlantic basin in the sixteenth century; in the nineteenth, it gave rise to an integrated Atlantic economy, the nucleus of the modern global economy. The process involved the transformation of the predominantly subsistence economies of the Atlantic basin in 1450 to market-based economies before their integration by the Atlantic market could occur. Large-scale specialization of the plantation and mining economies of the Americas was central to the transformation process. Because of abundant land, large-scale plantation agriculture in the Americas was made possible by coerced African labour. In the end, the unique characteristics of the export slave trade that supplied coerced African labour to the Americas retarded the development of the market economy in western Africa and kept the region's economies out of the integrated commodity production processes of the Atlantic economy until that trade ended in the mid-nineteenth century. The analysis of the commercializing process in the Atlantic basin and its causal link to England's Industrial Revolution, with its new technologies, and to the establishment of the integrated nineteenth-century Atlantic economy presents a powerful argument that places Africa at the centre stage of the globalization process.

Introduction

Since the term globalization was popularized by the media in the 1990s, social science historians and other scholars have struggled to define what it means as a historical process. An assessment of western Africa's contribution to the process, the subject of this article, requires clarification of several conceptual issues, such as the starting point in time of the process; the geographical location of the epicentre(s); the dialectical relationship between local and global forces; aborted processes, new beginnings, redirections; and so on.

1 The first draft of the article was read, with helpful critical comments, by Patrick Manning and Tony Hopkins. I am grateful to both of them. I also want to thank the anonymous readers, who offered very helpful comments, and the editors, especially Ken Pomeranz, for their encouragement and unusual attention to details. Kevin O'Rourke kindly sent to me one of his co-authored papers (discussed in the article), for which I am grateful.

A focused treatment of these issues needs a clear statement of what constitutes globalization as a historical process. The first section of the article addresses these questions and discusses issues in the literature pertinent to the assessment of western Africa's contribution. The second section examines the evolution of an integrated economy in the Atlantic basin, which by the nineteenth century became the nucleus of the modern global economy.² The third section focuses on western Africa's long-run contribution to the evolution of this integrated Atlantic economy and the cost for the region's economies.

What constitutes globalization as a historical process?

Globalization, as popularly understood since the 1990s, is a snapshot description of an observable reality: a highly integrated world, often called a 'global village'. The most visible aspect of this integration is the global economy. The world has become a single production site, dominated by transnational corporations that are free to select anywhere in the world to produce products or components of products. The more sophisticated the product the greater the global spread of the production process. All of this is controlled by a tightly integrated global market for products and capital, and, to a lesser extent, for labour. Many portfolio investors are now global investors; hence, financial problems even in small economies like those in Southeast Asia can have impact across the globe as happened in the late 1990s.³ Just as the global market has integrated the economies of the world so also have the societies and cultures of the world been brought closely together through migration, travelling, and twenty-four hour instant news and telecommunication.

On the downside, socio-political conflict arising from the hierarchical character of the integration is now also on a global scale.⁴ The potential danger of real or perceived injustice arising from economic and political power disparity among nations was recognized by world leaders in the 1970s. The Brandt Commission, established in 1977, reported that the economic and social disparities between 'North' and 'South' had become a problem comparable in importance to the dangers of the arms race.⁵ The 11 September 2001 attack on New York and Washington may be seen as the unfortunate fulfillment of this prophecy.

From the preceding snapshot, it is clear that the defining characteristics of current globalization popularized by the media are integration and hierarchy. Other manifestations of the phenomenon are related in one way or another to these defining elements. How, global historians should ask, did we get here?

2 There are two earlier studies of the evolution of an integrated economy in the Atlantic basin: J. E. Inikori, 'Africa in world history', in B. A. Ogot, ed., *General history of Africa*, Volume 5, Paris, Oxford, Berkeley: UNESCO, Heinemann, University of California Press, 1992; Kevin H. O'Rourke and Jeffrey G. Williamson, *Globalization and history*, Cambridge, MA: MIT Press, 1999. They both leave considerable gaps that this article, among other things, attempts to fill.

3 Padma Desai, *Financial crisis, contagion and containment*, Princeton, NJ: Princeton University Press, 2003.

4 Arthur Mitzman, *Prometheus revisited*, Amherst, MA: University of Massachusetts Press, 2003, p. xi; Amira K. Bennisson, 'Muslim universalism and western globalization', in A. G. Hopkins, ed., *Globalization in world history*, New York: W. W. Norton, 2002, p. 97.

5 *North-South, a programme for survival*, London: Pan Books, 1980, p. 8.

But the conceptions of global history in the literature do not always take integration and hierarchy as the defining elements. One of the main problems is the distinction between global history and world history. In her discussion of a number of well-known works, Abu-Lughod distinguished between those whose focus is on ‘disparate places’, which she placed under world history, and those whose focus is on ‘the *linkages among* places and the systematic nature of those linkages’, which she placed under global history.⁶ Bentley and Ziegler drew somewhat similar distinctions in their *Traditions and encounters*.⁷ On the other hand, Patrick Manning implies that what Abu-Lughod calls global history is the only true world history:

To put it simply, world history is the story of connections within the global human community. The world historian’s work is to portray the crossing of boundaries and the linking of systems in the human past. . . . *World history is far less than the sum total of all history*.⁸

The tension between the focus of global history and other fields of history arises partly from the problem of clarifying what is meant by integration and how it can be measured for purposes of studying the historical processes that produced differing degrees of integration over different time periods. The problem is easier to deal with if our focus is on the economic aspect of the process. Here the market is the main mechanism for the process of integration and the degree of integration can be measured in terms of price convergence and the mobility of products and production factors across the globe.⁹ Since the evolution of the integrated global economy was central to the long-run process of integration which gave birth to our current ‘global village’, it may be helpful conceptually to view integration from the standpoint of the economic process. The socio-political elements in the process may then be taken as causes and effects.

This article focuses on the economic process. We, therefore, examine the debate in the literature concerning dating in terms of the historical processes which produced the defining elements of the current global economic order – integration and hierarchy. First, we must distinguish between work devoted to the historical origins of the hierarchical structure of our ‘global village’ and scholarship focused on the process of integration. It is also important to note two essentially separate issues in the debate about the historical origins of hierarchy – divergence that was already in existence before the modern process of integration and caused by factors unrelated to that process, and hierarchy that resulted from the integration process itself.

At a glance, it is unmistakable that the issue of hierarchy overwhelmingly dominates the literature on global history. Decades before the 1990s media preoccupation with the

6 Janet Abu-Lughod, *The world system in the thirteenth century*, Washington, DC: American Historical Association, 1993, pp. 18–23.

7 Jerry H. Bentley and Herbert F. Ziegler, *Traditions and encounters*, 3rd edn, Boston, MA: McGraw-Hill, 2006; first published, 2000, p. xxvii.

8 Patrick Manning, *Navigating world history*, New York: Palgrave Macmillan, 2003, p. 3; emphasis added. For a contrary view, see Arif Dirlik, ‘Confounding metaphors’, in Benedikt Stuchtey and Eckhardt Fuchs, eds., *Writing world history, 1800–2000*, Oxford: Oxford University Press, 2003, fn 1, p. 91, and p. 96.

9 Inikori, ‘Africa in world history’; O’Rourke and Williamson, *Globalization and history*.

phenomenon of interdependence in our contemporary world attracted the attention of scholars, the reality of poor nations and rich nations was already a major focus of scholarly investigation. The debate centered on two broad questions: whether the rich nations became rich largely because of independent internal factors in those nations or largely because of external ones; and whether the poor nations remained poor largely because of independent internal factors or largely because of external ones.¹⁰ While elements of integration are apparent in dependency scholarship that emphasizes external factors in underdevelopment, the analysis is not explicitly conducted in the context of integration processes. On the other hand, scholarship focused on independent internal factors in the history of rich and poor nations is totally unconcerned with integration. The study of hierarchy in global history, which has flourished since the late 1990s, flows directly from this earlier scholarship. The important study by Pomeranz, *The great divergence*, has contributed to the rapid expansion of that literature. And the new literature shares elements of the old. For the most part, the process of integration is not made explicit. In particular, it is not made clear whether integration and hierarchy are both products of the same globalization process or some elements of hierarchy already existed before the globalization process that produced the current global village.¹¹ Implicit in the greater part of the literature, however, is the idea that the hierarchical structure of the current global order has been produced by the same process that created the integrated global village. This is true of Braudel's study of civilization and capitalism, especially the third volume.¹² More explicitly focused on this point is Wallerstein's *World system*. However, world system studies focus almost exclusively on integration between developed and underdeveloped economies and little on overall integration.¹³

To comprehend subsequent arguments concerning western Africa's contribution to the globalization process, it is pertinent to link the neglected issue of the global integration process to the current debate on the dating of the historical process which created the current global order. How far back can we trace the history of that process? While some scholars, notably Frank and Gills, have argued that our current world order has been evolving continuously for about 5,000 years, the majority believe that there have been successions of globalization processes, with clear discontinuities, and that the one that produced the current order dates from no earlier than the sixteenth century. Within the latter camp, some scholars argue for further discontinuities within the post-1500 globalization process,

10 To avoid a lengthy discussion of this earlier literature, the work of Jones and dependency scholarship may be taken as representative. E. L. Jones, *The European miracle*, Cambridge: Cambridge University Press, 1981; 2nd edn, 1987. Dependency scholarship is usually traced to Baran and Frank: Paul A. Baran, *The political economy of growth*, New York: Monthly Review Press, 1957; Andre Gunder Frank, *Capitalism and underdevelopment in Latin America*, New York: Monthly Review Press, 1967. For a critical survey of the dependency literature, see Robert A. Packenham, *The dependency movement*, Cambridge, MA: Harvard University Press, 1992.

11 Jack Goody, *The East in the West*, Cambridge: Cambridge University Press, 1996; Andre Gunder Frank, *ReOrient: global economy in the Asian age*, Berkeley: University of California Press, 1998; David S. Landes, *The wealth and poverty of nations*, New York: W. W. Norton, 1998; Kenneth Pomeranz, *The great divergence*, Princeton, NJ: Princeton University Press, 2000; Gale Stokes, 'The fates of human societies: a review of recent macrohistories', *American Historical Review*, 106, 2, 2001, pp. 508–25.

12 Fernand Braudel, *Civilization and capitalism*, 3 vols., New York: Harper & Row, 1982–1984. Of the three volumes the most relevant to the issues under consideration is volume three, *The perspective of the world*.

13 Immanuel Wallerstein, *The modern world system*, 3 vols., New York: Academic Press, 1974–1989.

making the cuts at various points; for most, however, these sub-divisions are not central to their arguments and need not be made very exactly.¹⁴

Wallerstein, on the other hand, attempts to bring to the debate precision in the use of terms. He distinguishes between trading networks and economic systems. Before 1500 CE, Wallerstein argues, multiple historical systems coexisted. Though linked together by a trading network these multiple systems did not form one single economic system, because, Wallerstein stresses, the trading network was not based at any point in time during the period ‘on an axial division of labor involving integrated production processes’. For Wallerstein, a single world economic system did not exist ‘until the nineteenth century’.¹⁵ This is also the position of William McNeill, who argues that long-distance trading in ancient times was not large enough ‘to affect ancient societies in more than superficial ways’.¹⁶

That difficulties in dating the modern globalization process arise largely from imprecise use of terms (as Wallerstein just hinted) is highlighted by the recent O’Rourke and Williamson–Flynn and Giraldez exchange on the subject. In 2002, O’Rourke and Williamson published two articles on two related subjects: one shows the rapid growth of world trade in the five centuries following the explorations by Columbus and da Gama and identifies the factors which explain the ‘trade boom’; based on the evidence, the other asks and answers the question ‘[w]hen did globalization begin?’.¹⁷ The first article concludes that because there is no evidence showing a decline in barriers to trade before the 1820s, the booms of the preceding three centuries were caused by booms in demand and supply. On the other hand, the trade booms of the nineteenth and twentieth centuries were caused by declining trade barriers.¹⁸ The second article analyses the evidence and concludes: ‘Globalization did not begin 5,000 years ago, or even 500 years ago. It began in the early nineteenth century.’¹⁹

Simultaneous with O’Rourke and Williamson’s articles, Flynn and Giraldez published a paper on silver flows and globalization.²⁰ They demonstrate the dominant role of China’s demand in the history of silver production in Spanish America and Japan. The boom in China’s demand for silver, following the mid-fifteenth-century Chinese conversion from paper to silver currency, raised the value of silver in relation to gold in Asia considerably above that in Europe in 1540–1640. Asian and European bimetallic ratios converged in the mid-seventeenth

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- 14 Andre Gunder Frank and Barry K. Gills, ‘Rejoinder and conclusions’, in Andre Gunder Frank and Barry K. Gills (eds.), *The World System: Five hundred years or five thousand?*, London: Routledge, 1993, p. 297; Janet Abu-Lughod, ‘Discontinuities and Persistence,’ in Frank and Gills (eds.), *The World System*, pp. 278–91; Janet L. Abu-Lughod, *Before European hegemony*, Oxford: Oxford University Press, 1989; Bentley and Ziegler, *Traditions and encounters*, pp. vii–xix, xxxi; C. A. Bayly, “‘Archaic’ and ‘modern’ globalization in the Eurasian and African arena, ca. 1750–1850”, in Hopkins, ed., *Globalization*, p. 47; A. G. Hopkins, ‘Globalization – an agenda for historians’, in Hopkins, ed., *Globalization*, pp. 1–11.
- 15 Immanuel Wallerstein, ‘World system versus world-systems: a critique’, in Frank and Gills, eds., *The world system*, pp. 294–5; emphasis added.
- 16 William H. McNeill, ‘Foreword’, in Frank and Gills, eds., *The world system*, p. xi.
- 17 Kevin H. O’Rourke and Jeffrey G. Williamson, ‘After Columbus: explaining Europe’s overseas trade boom, 1500–1800’, *Journal of Economic History*, 62, 2, 2002, pp. 417–56; ‘When did globalisation begin?’, *European Review of Economic History*, 6, 2002, pp. 23–50.
- 18 O’Rourke and Williamson, ‘After Columbus’, pp. 428–30.
- 19 O’Rourke and Williamson, ‘When did globalisation begin?’, p. 47.
- 20 Dennis O. Flynn and Arturo Giraldez, ‘Cycles of silver: global economic unity through the mid-eighteenth century’, *Journal of World History*, 13, 2, 2002, pp. 391–427.

century after a century of massive import of silver and export of gold by China. Then increased Chinese demand for silver, provoked by the demographic impact of imported American food crops, led to another round of massive imports of Spanish American silver, gave rise to another divergence of bimetallic ratios in Asia and Europe, and stimulated the eighteenth-century boom in Mexican silver production. A new convergence in Asian and European bimetallic ratios emerged again after 1750. Based on this evidence, Flynn and Giraldez contend 'that a highly integrated global economy has existed since the sixteenth century'.²¹

On the surface these two arguments would appear to be diametrically opposed. Thus, Flynn and Giraldez took issue with the conclusion of O'Rourke and Williamson and the latter responded.²² On closer examination, however, we find that the two sets of articles are not talking about the same thing: An integrated global economy would appear to mean different things in them. For O'Rourke and Williamson an integrated global economy entails a global division of labour in the production of goods and services (similar to what Wallerstein characterizes as 'an axial division of labor involving integrated production processes').²³ For Flynn and Giraldez, on the other hand, an integrated global economy entails the establishment of 'complex trade connections at a global level'. Hence, they 'chose 1571 ... as the specific year during which global trade was born'.²⁴ 'We propose that globalization began when the Old World became directly connected with the Americas in 1571 *via* Manila ...'.²⁵ For Flynn and Giraldez, therefore, global trade linkages by themselves constitute globalization; it does not matter whether or not such trade connections establish a global division of labour. They make no distinction between a trading system and an economic system.

While the two sets of articles differ fundamentally in their conceptions of globalization, they share a common problem in failing to deal with the long-run historical process that produced the highly integrated global economy celebrated by the media in the 1990s. O'Rourke and Williamson define globalization in a manner consistent with that phenomenon: 'the integration of markets across space' (Wallerstein's notion of 'an axial division of labor involving integrated production processes' worldwide is similarly consistent). But by focusing exclusively on determining whether or not 'the integration of markets across space' had been effected at given moments they focus only on the final outcome without showing the causal process with its details and the factors that propelled it forward. Consequent on that, a major issue overlooked by O'Rourke and Williamson is the development of the domestic markets in the national or even regional economies that were later integrated to constitute the integrated global economy. How did the predominantly subsistence economies of the world in 1492 and 1498 become predominantly market-based economies? What role did the trade booms of the three centuries preceding the 1820s play in that transformation process? Where can we locate the initial epicentre(s) of the process and what were the early

21 Flynn and Giraldez, 'Cycles of silver', p. 392.

22 Dennis O. Flynn and Arturo Giraldez, 'Path dependence, time lags and the birth of globalization: a critique of O'Rourke and Williamson', *European Review of Economic History*, 8, 2004, pp. 81–108; Kevin H. O'Rourke and Jeffrey G. Williamson, 'Once more: when did globalisation begin?', *European Review of Economic History*, 8, 2004, pp. 109–17.

23 O'Rourke and Williamson, 'When did globalisation begin?', pp. 26–8.

24 Flynn and Giraldez, 'Cycles of silver', pp. 392–3.

25 Flynn and Giraldez, 'Path dependence', pp. 82–3.

critical factors? The development of regional markets and the geographical spread of the market economy need to occur before the kind of global trade impact articulated by O'Rourke and Williamson can take place.

In contrast to O'Rourke and Williamson, the data presented by Flynn and Giraldez fit better a process narrative than their preferred argument. The characteristics of the global trade in silver and gold they present support the point that an integrated global economy did not exist in the sixteenth- to eighteenth-century period, if by integrated global economy we understand 'an axial division of labor involving integrated production processes' worldwide. First, the large disparity between gold to silver ratios in western Europe and China for a whole century (1540–1640) is a strong indication of considerable barriers to trade between them, even in products of very high value to bulk ratio like silver and gold. Second, the fact that periodic price convergence was limited to silver and gold suggests that the Europe–Asia trade of the sixteenth- to eighteenth-century period did not stimulate the development of division of labour in the commodity production process between Europe and Asia during the period.

But silver and gold production in the Americas contributed significantly in the transformation of the predominantly subsistence economies of pre-Columbian America to market economies over time. Their massive imports into Europe and Asia had similar effects. (We say more on this later.) Again, the impact of imported American food plants in China demonstrated by Flynn and Giraldez is no proof of the existence of division of labour between China and the Americas in the eighteenth century. But it is a critical development in the long-run historical process leading to the ultimate integration of commodity markets, because it stimulated the development of markets and the geographical spread of the market economy in China. Thus, the establishment of global trade connections in the sixteenth century was the beginning of the globalization process, not the end result, globalization.²⁶

While this view that flows from the literature is significant for the subject of this article, for subsequent arguments it is still important to know how the process started. Some analysts imply that the prior development of capitalism in Europe was the engine that propelled the process from 1500. Thus, the sub-title of the first volume of Wallerstein's three-volume world-system study is *Capitalist agriculture and the origins of the European world-economy in the sixteenth century*.²⁷ But was there a capitalist economy in any country in Europe in 1500? Applying the measurable definition of capitalism accepted by both Marx and Weber, we find that wage labour was not the dominant form of the labour process in any country in Europe in 1500.²⁸ In both agriculture and manufacturing independent producers owning their means of production (especially land) remained predominant.²⁹ The additional

26 Arthur Lewis had argued for a much later date, the last quarter of the nineteenth century: W. Arthur Lewis, *The evolution of the international economic order*, Princeton, NJ: Princeton University Press, 1978. The argument was part of the inward-looking explanations that characterized the scholarship of the 1950–1980 historiographical epoch: Joseph E. Inikori, *Africans and the Industrial Revolution in England: a study in international trade and economic development*, Cambridge: Cambridge University Press, 2002, pp. 89–155. Few historians share that view today.

27 Immanuel Wallerstein, *The modern world-system I*, New York: Academic Press, 1974.

28 For a discussion of the literature on the confusing conceptions of capitalism as a social system, see Joseph E. Inikori, *Slavery and the rise of capitalism: the 1993 Elsa Goveia Memorial Lecture*, Mona, Jamaica: Department of History, University of the West Indies, 1993, pp. 2–9.

29 *Ibid.*, pp. 9–13.

elements suggested by Wallerstein are redundant.³⁰ It is pertinent to note that the development of capitalism in western Europe was a product of the globalization process that began in 1500. Gunder Frank, who once argued that capitalist Europe carried capitalism to the rest of the world in the sixteenth century, later conceded that capitalism was not established in Europe before the growth of mechanized, factory industry in the nineteenth century.³¹

Just as capitalist economies did not emerge before the nineteenth century, there was also no capitalist world economy before that time. It is misleading to talk of a capitalist world economy of the sixteenth century.³² Abu-Lughod's 1250–1350 system was a trading system, not an economic system; the Indian Ocean system was a trading system, not an economic system;³³ the Atlantic basin had a trading system from the sixteenth century, but did not have a single economic system, the Atlantic economy, until the nineteenth century. Long-distance trading in all regions of the world remained too small to have any significant widespread effects on societies before the expansion of Atlantic commerce between the mid-seventeenth and mid-nineteenth century.³⁴ The rest of the article attempts to show that the Atlantic basin was the geographical location of the early development of the modern global economy, the Atlantic economy, and that the labour of African peoples was a critical factor.

The evolution of an integrated economy in the Atlantic basin

Before the mid-fifteenth century, there was no direct connection between the economies and societies in the Atlantic basin (western Europe, western Africa, and the Americas). Western Europe and western Africa were part of the so-called Afro-Eurasian trading system(s), but trade between them was mediated by North African and Middle Eastern merchants. In all three sub-regions of the Atlantic pre-capitalist forms of socioeconomic organization prevailed and subsistence production remained dominant. Even in England, one of the most commercialized economies of western Europe in early modern times, the market sector of the economy may have contributed less than one-half of the GDP in the first half of the fifteenth century.³⁵ What we had in the Atlantic basin in the centuries preceding the

30 Wallerstein, 'World system versus world-systems', pp. 292–3.

31 Frank, *ReOrient*, p. xix.

32 Wallerstein, 'World system versus world-systems', p. 295; McNeill, 'Foreword', p. xi.

33 Philippe Beaujard, 'The Indian Ocean in Eurasian and African world-systems before the sixteenth century', *Journal of World History*, 16, 4, 2005, p. 2.

34 Inikori, *Africans and the Industrial Revolution*; Douglass C. North, *The economic growth of the United States, 1790–1860*, New York: W.W. Norton, 1966; first published, Prentice Hall, 1961; Pomeranz, *The great divergence*.

35 The commercializing process in medieval England peaked in 1300 when the country's population reached its highest point (6 million) before the eighteenth century. Yet, Bruce Campbell's evidence suggests the market sector may have contributed less than one-third of England's GDP in 1300. Given the catastrophic population decline between 1300 and 1450, and the collapse of international trade centred in the Mediterranean during the period, it is unlikely that the market sector in England contributed as much as one-half of the GDP during the latter period, let alone all of Western Europe taken together. Bruce M. S. Campbell, 'Measuring the commercialisation of seigneurial agriculture c. 1300', in Richard H. Britnell and Bruce M. S. Campbell, eds., *A commercialising economy: England 1086–c. 1300*, Manchester: Manchester University Press, 1995, pp. 174–93.

fifteenth-century Portuguese and Spanish explorations were several regionally based globalization processes in the Americas, western Africa, and western Europe. But by the mid-nineteenth century there was an integrated economy in the Atlantic basin, the Atlantic economy, with an Atlantic market that integrated the domestic markets of the national economies of the region. How did this happen and what factors were central to the process? This is the main issue for the rest of the article. We begin the narrative with the pre-European contact regionally based process in Africa.

The globalization process in pre-contact Africa exhibits in the extreme the general patterns of the process worldwide from ancient times – aborted processes, new beginnings, followed by further ruptures and redirections. About five thousand years ago the current Sahara region and the Nile valley were the centres of the globalization process in Africa.³⁶ The ancient processes were ruptured by the long-term climatic change that turned the Sahara into an immense desert. This major climatic and ecological change gave rise to a new process with the dispersal of the green Saharan³⁷ population north and south, which precipitated further population movements and the creation of ethnic and linguistic groups with a mixture of cultural elements.

The post-green Sahara globalization process in Africa reached a high point in the first half of the second millennium CE. Favourable ecological conditions and advantageous geographical location in relation to the trading centres in the Mediterranean world and to important resources in the southern Sahara, such as copper and salt, made the Niger bend an early centre of population concentration, complex socio-political development, commerce, and manufacturing. Hence, the first centralized states in western Africa evolved in the region – ancient Ghana, Mali, and Songhay. From the mid-thirteenth to the late sixteenth century, a large proportion of western Africa's total population was concentrated in the territories of these empires. Mahmud Kati, a fourteenth-century Arab visitor to Mali, counted 400 towns in the empire, with 100,000 people in the capital city of Niani. Before the Moroccan invasion of 1591 resulted in the collapse of the Songhay empire, the three Niger bend cities of Jenne, Timbuktu, and Gao had total populations estimated at 30,000–40,000, 80,000, and 100,000, respectively.³⁸ The eastern stretch of the West African savanna in modern Northern Nigeria and the Chad basin, where the early state of Kanem-Borno emerged during the same period, was linked to the developments in the

36 Christopher Ehret, *Sudanic civilization*, Washington, DC: American Historical Association, 2003; Basil Davidson, *Africa in history: themes and outlines*, revised edition, New York: Macmillan, 1991. The argument advanced in the article is that the globalization process was regionally based (de-centred) initially. Several processes competed over time, with ruptures and redirections, the most successful of which, the Atlantic-based process, expanded over time to constitute the modern global system. This is consistent with the view expressed recently by Ralph Austen in his critique of the literature: Ralph A. Austen, 'Africa and globalization: colonialism, decolonization and the postcolonial malaise', *Journal of Global History*, 1, 2006, p. 403.

37 The term green Sahara describes the wet phase of the Sahara before the increasing dryness that turned it into a desert.

38 D. T. Niane, 'Mali and the second Mandingo expansion', in D. T. Niane, ed., *General history of Africa*, Volume 4, London, Berkeley, Paris: Heinemann, University of California Press, Unesco, 1984, p. 156; John O. Hunwick, *Timbuktu and the Songhay Empire*, Leiden, Boston, Köln: Brill, 1999, pp. xxiv–xxv; S. M. Cissoko, 'The Songhay from the 12th to the 16th century', in Niane, ed., *General history of Africa*, vol. 4, p. 206; Roderick J. McIntosh, *Ancient Middle Niger: urbanism and the self-organizing landscape*, Cambridge: Cambridge University Press, 2005; *The peoples of the Middle Niger*, Oxford: Blackwell, 1998.

Niger bend that constituted the epicentre of the globalization process in western Africa at this time.

The coastal societies of West Africa and their hinterlands were connected to the centres of commercial and socio-political development in the interior savannah by networks of long-distance trade. Differing population densities and natural resource endowments encouraged a gradual development of inter-regional specialization and trade between the interior savannah and the forest region to the south and Atlantic coast. The growth of entrepot trade in gold, copper, and salt increased the volume of trade between the two regions. Gold was produced in the forest and coastal region and the final purchasers at the time were largely in western Europe; a chain of merchants, of whom Niger bend traders were an important part, mediated between the producers and the final purchasers. The same thing was true of copper and salt produced in the southern Sahara, but reached consumers in the forest and coastal region through Niger bend merchants. As the centralized states of the interior savannah became increasingly Muslim, kola nuts from the forest region became a major commodity in the trade between the two regions. The evidence suggests that by the mid-fifteenth century the globalization process in West Africa, centred in the Niger bend, had made some progress, with inter-connected trading networks served by a variety of currencies (including gold, cowries, small copper rods and other metals, some produced locally); the commercializing process and the growth and geographical spread of the market economy were marching on.³⁹

The Portuguese arrived on the West African coast in the 1440s. The main motivation for the exploration had been direct seaborne access to West Africa's gold that had hitherto reached western Europe through North African and Middle Eastern traders, as mentioned earlier. It is thus no surprise that for over two hundred years, from the 1440s to the mid-seventeenth century, the trade in gold dominated European commercial enterprise in West Africa.⁴⁰ Adding other African products, such as red pepper from the Benin kingdom, hides and skins from Senegambia, copper from the Kongo kingdom, ivory, and redwood, western Africa's Atlantic trade was overwhelmingly dominated by products derived from the region's natural resources for two centuries, even though the trade included the export of some captives to southern Europe and islands off the African coast from the very beginning.⁴¹

39 Joseph E. Inikori, 'Transatlantic slaving and market development in the Atlantic world: West Africa, 1450–1850', in David Eltis and Stanley L. Engerman, eds., *The Cambridge world history of slavery, volume 3: AD 1420–AD 1804*, Cambridge: Cambridge University Press, in press; Ivor Wilks, 'A medieval trade-route from the Niger to the Gulf of Guinea', *Journal of African History*, 3, 2, 1962, pp. 337–8; Marion Johnson, 'The cowrie currencies of West Africa', Parts I & II, *Journal of African History*, 11, 1 and 3, 1970; Robert Smith, 'The canoe in West African history', *Journal of African History*, 11, 4, 1970; E. J. Alagoa, 'Long-distance trade and states in the Niger Delta', *Journal of African History*, 11, 3, 1970, pp. 319–29; A. E. Afigbo, 'Pre-colonial trade links between Southeastern Nigeria and the Benue Valley', *Journal of African Studies*, 4, 2, 1977, pp. 119–39; A. J. H. Latham, 'Currency, credit and capitalism on the Cross River in the pre-colonial era', *Journal of African History*, 12, 4, 1971, pp. 599–605; David Northrup, 'The growth of trade among the Igbo before 1800', *Journal of African History*, 13, 2, 1972; David Northrup, *Trade without rulers: pre-colonial economic development in Southeastern Nigeria*, Oxford: Clarendon Press, 1978; A. G. Hopkins, *An economic history of West Africa*, Harlow: Longman, 1973, pp. 51–75.

40 John W. Blake, *West Africa: quest for God and gold, 1454–1578*, London: Curzon Press, 1977.

41 Joseph E. Inikori, 'The struggle against the transatlantic slave trade: the role of the State', in Sylviane A. Diouf, ed., *Fighting the slave trade: West African strategies*, Athens, OH: Ohio University Press, 2003, pp. 170–98.

Although the growth of Atlantic commerce began a process redirecting West Africa's globalization away from the centres of commerce and manufacturing in the interior savannah to the Atlantic, there is clear evidence in West Africa (but not in West-Central Africa) that the first two hundred years of the trade, with its concentration on commodities produced by African entrepreneurs, further reinforced the preceding inter-regional trade expansion, the commercializing process, and the growth and geographical spread of the market economy.⁴² At this point commodity production in West Africa remained an important part of the growing production of commodities for Atlantic commerce that followed the Portuguese and Spanish explorations of the late fifteenth century.

The globalization process in the Atlantic basin entered a new phase with the expansion of plantation agriculture in Brazil and the Caribbean, and the almost total destruction of the indigenous population of the Americas. Table 1 shows the annual average value of Atlantic commerce and the annual percentage growth rate, 1501–1850. Fueled by bullion production (silver in particular) in Spanish America and sugar in Brazil,⁴³ Atlantic commerce grew quickly from a low level in the sixteenth and seventeenth centuries. From the mid-seventeenth to the mid-nineteenth century, plantation production of commodities for Atlantic commerce in the Americas expanded phenomenally, first in the Caribbean and later in mainland British America.⁴⁴

The expansion of mining and plantation agriculture in the Americas was the central force that propelled the globalization process in the Atlantic basin from 1500 to 1850. New World mining and plantation agriculture were the largest and most specialized commodity-producing sectors of the Atlantic economies during the period. The plantations, particularly the sugar plantation complex that combined agriculture and agro-industry in one operation, employed millions of workers full time to produce commodities that must be sold across the Atlantic. The degree of specialization was so great that the mining and plantation economies created extensive market opportunities for other producers across the Atlantic to engage in production for market exchange and gradually move out of subsistence production. The details of the process are pertinent to our argument.

As hinted earlier, bullion dominated commodity production for Atlantic commerce in the Americas in the sixteenth century. This limited the volume of Atlantic commerce during the period. Estimates put the volume of bullion shipped from the Americas to Europe at an annual average of 40 tons in 1501–25, 105 tons in 1526–50, and 205 tons in the last two quarters of the century. The value of Atlantic commerce in the sixteenth century was also small – an annual average of £3.2 million (sterling) in 1501–50, and £9.5 million in 1551–1600.⁴⁵

42 Inikori, 'Transatlantic slaving'; Ray A. Kea, *Settlement, trade, and politics in the seventeenth-century Gold Coast*, Baltimore: Johns Hopkins University Press, 1982; Robin Law, 'Trade and politics behind the Slave Coast: the lagoon traffic and the rise of Lagos, 1500–1800', *Journal of African History*, 24, 3, 1983, pp. 321–48. West-Central Africa, where Portuguese export of captives to Brazil and islands off the African coast had a devastating impact as early as the seventeenth century, was an exception; see Anne Hilton, *The kingdom of Kongo*, Oxford: Clarendon Press, 1985; Jan Vansina and T. Obenga, 'The Kongo kingdom and its neighbours', in Ogot, ed., *General history of Africa*, vol. 5; Joseph C. Miller, *Way of death*, Madison: University of Wisconsin Press, 1988.

43 For the statistical details, see Inikori, *Africans and the Industrial Revolution*, pp. 169–88 and Appendix 4.2, p. 488.

44 For the statistical details, see *ibid.*, p. 169, Table 4.2, p. 176, Table 4.4, p. 181.

45 Inikori, *Africans and the Industrial Revolution*, Table 4.8, p. 202, Appendix 4.1, p. 487.

Table 1. Annual average value of Atlantic commerce (exports + re-exports + imports + services) and annual percentage growth rate, 1501–1850.

Period	Annual average (£000)	Mean annual growth rate (%)
1501–50	3,241	
1551–1600	9,485	1501/50–1551/1600
1601–50	15,795	1551/1600–1601/50
1651–70	20,084	1601/50–1651/70
1711–60	35,638	1651/70–1711/60
1761–80	57,696	1711/60–1761/80
1781–1800	105,546	1761/80–1781/1800
1848–1850	231,046	1781/1800–1848/50

Sources & Notes: Computed from Inikori, *Africans and the Industrial Revolution*, Table 4.8, p. 202. The growth rates are computed between the last years of the periods; for example, the annual average for 1501–50 is assigned to 1550, and that for 1551–1600 to 1600, and the compound rate is computed between those two years. The values stated in the table are virtually limited to the import and export trade between the West European powers and the Americas and western Africa. The large amount of trade between the West European powers that in reality was part of Atlantic commerce is not included. Also almost entirely left out is the huge intra-American trade between the main regions of the Americas.

Both in volume and in value, it is fair to say that Atlantic commerce in the sixteenth century was too small to constitute the basis for the development of specialization and division of labour among the sub-regions of the Atlantic basin. Those who claim the existence of a world economy in the sixteenth century must take the quantitative evidence into account.

Yet, the sixteenth-century bullion production and trade played an important role in the long-run globalization process in the Atlantic basin by facilitating the growth and geographical spread of the market economy in several of the sub-regions. Peter Bakewell's terse expression captures the impact on the economies of Spanish America: 'The conquest, exploration, settlement and exploitation of Spanish America were all spurred on by the prospect of mining; and mining determined to a remarkable degree the internal economic arrangement of the colonies.'⁴⁶ The major silver mines were located in barren lands far removed from populated agricultural areas. As their population grew and they became large urban centres, the needs of the mines and those of the people in the cities created large markets for mining inputs, food, manufactures, and services in regions hitherto dominated by subsistence production. This provided a powerful impetus for the growth of market production and the diminution of the subsistence sector over time. The first of these large mining centres was Potosi in the viceroyalty of Peru. Founded shortly after the mines were discovered there in 1545, Potosi had 120,000 people in 1580 and 160,000 in 1650. Burkholder and Johnson point out that 'the size and economic influence' of Potosi 'were unparalleled in the Americas and perhaps equal to those of contemporary London'.⁴⁷ The needs of Potosi were provided by a regional economy that stretched from the Argentine *pampa* through the

46 Peter Bakewell, 'Mining in colonial Spanish America', in Leslie Bethell, ed., *Cambridge history of Latin America*, vol. 2, Cambridge: Cambridge University Press, 1984, p. 150.

47 Mark A. Burkholder and Lyman L. Johnson, *Colonial Latin America*, 5th edn, Oxford: Oxford University Press, 2004, p. 171.

central valleys of Chile to coastal Peru and Ecuador, creating a chain of multiplier effects.⁴⁸ Mining stimulated a similar commercializing process in the viceroyalty of New Spain in the sixteenth and seventeenth centuries.⁴⁹

In western Europe Spanish American bullion was a major factor in the commercializing process and the development of domestic markets in the sixteenth and seventeenth centuries. Because the credit economy and paper currencies were yet to be established in western Europe at the time, silver coinage was the main circulating medium.⁵⁰ Spanish government policies encouraged a rapid movement of the Spanish American bullion from Spain to the major commercial and manufacturing centres in France, Holland, Germany, and England. Two important developments followed. Manufactured exports from these centres to Spain in exchange for the bullion stimulated the growth of intra-European trade and the development of manufacturing in favoured countries. The other development was a phenomenal increase in the quantity of money in circulation which contributed greatly to the sixteenth-century price revolution in western Europe.⁵¹ Both developments contributed to the growth and geographical spread of the market economy and the development of domestic markets in western Europe during the period. What is more, the export of Spanish American silver to Asia made possible the import of Asian products, especially textiles, tea, and porcelains, which contributed to revolutionize consumption habits and pull subsistence producers into market production in the long run.

Although Spanish American bullion was important in the globalization process in the Atlantic basin as we have shown, it was the growth and geographical spread of plantation production of commodities in the Americas during the period 1650–1850 that ultimately gave rise to the Atlantic economy. The plantation impact was first felt in Brazil, where production started in the sixteenth century. The success of commodity production for export – sugar, gold, coffee, cotton, tobacco, etc. – pushed the frontier of settlement continuously from the coast into the interior as forced and free migration increased the population fast. This is shown in Table 2. The growing needs of the export producers for inputs, food, clothing, and services stimulated commercial production of a variety of goods and services, particularly foodstuffs. The commercialization of food production was so advanced in the nineteenth century that large-scale producers employed enslaved Africans.⁵² The growing inter-regional division of labour expanded the domestic market and created incentives for the investment of capital in internal transportation improvement, of which the railways

48 *Ibid.*, pp. 171–3.

49 Louisa S. Hoberman, *Mexico's merchant elite, 1590–1660: silver, state, and society*, Durham, NC and London: Duke University Press, 1991.

50 Murdo J. Macleod, 'Spain and America: the Atlantic trade, 1492–1720', in Leslie Bethell, ed., *Cambridge history of Latin America*, vol. 1, Cambridge: Cambridge University Press, 1984, p. 366.

51 Mauricio Drelichman, 'All that glitters: precious metals, rent seeking and the decline of Spain', *European Review of Economic History*, 9, 3, 2005, pp. 313–36; E. J. Hamilton, 'American treasure and the rise of capitalism', *Economica*, 9, 1929, pp. 338–57; J. D. Gould, 'The price revolution reconsidered', *Economic History Review*, 2nd series, 17, 1964, pp. 249–66; Inikori, *Africans and the Industrial Revolution*, pp. 203–6.

52 Francisco Vidal Luna and Herbert S. Klein, 'African slavery in the production of subsistence crops: the case of Sao Paulo in the nineteenth century', Paper presented at the Conference on Factor Endowments, Labor and Economic Growth in the Americas, Rochester, 8 June 2001.

Table 2. Population growth and settlement in Brazil, 1600–1900.

Year	Area settled (sq. km)	Population (000)	Density (per sq. km)
1600	25,000	100	3.9
1650	–	170	–
1700	110,170	350	3.2
1750	–	1,500	–
1800	324,000	3,300	10.2
1850	–	7,234	–
1900	988,700	17,984	18.2

Source: Compiled from Mircea Buescu, *Historia economica do Brasil: pesquisas e analises*, Rio de Janeiro: Apec, 1970, pp. 168, 200, 242.

were the most important. By 1913, Brazil had 24,737 kms of railways operated by fifteen private companies,⁵³ linking remote areas to domestic and overseas markets.

The Caribbean, with its highly specialized plantation economy, became the centre of gravity in the globalization process in the Atlantic basin from 1650 to 1800. In 1768–72, the British Caribbean contributed 55.7% of the total value of commodities produced in British America for Atlantic commerce; in 1804–06, it was 60.5%.⁵⁴ The available evidence indicates that the entire Caribbean contributed about one-half of the total value of commodities produced in the Americas (including bullion) for Atlantic commerce in the second half of the eighteenth century.⁵⁵

The high degree of specialization of the Caribbean plantation economy provided important markets for producers across the Atlantic, especially mainland British America that produced foodstuffs and shipping services for the British and non-British Caribbean. New England and the mid-Atlantic region were the main beneficiaries. Unable to engage in plantation agriculture because of unfavourable climate and land, both regions had remained trapped in subsistence agriculture. The comparative per capita income of the free population in the British American colonies in *c.* 1774 reflects this: New England, £38.2; mid-Atlantic, £45.8; southern mainland, £92.7; West Indies, £1,200.00. It is no surprise that in the eighteenth century, New England was not attractive to European immigrants; a total of 28,000 had migrated to the region in 1630–80, but from 1680 to 1780 it suffered a net loss of 31,000.⁵⁶

Caribbean demand for shipping and other mercantile services was the first market opportunity New England had to exploit commercially its natural resource endowment of deep harbours and forests with abundant trees suitable for building wooden sailing-ships.

53 Victor Bulmer-Thomas, *The economic history of Latin America since independence*, 2nd edn, Cambridge: Cambridge University Press, 2003, Table 4.4, p. 105.

54 Inikori, *Africans and the Industrial Revolution*, Table 4.2, p. 176.

55 *Ibid.*, p. 169, Table 4.4, p. 181.

56 Stanley L. Engerman and Kenneth L. Sokoloff, 'Factor endowments, institutions, and differential paths of growth among New World economies', in Stephen Haber, ed., *How Latin America fell behind*, Stanford: Stanford University Press, 1997, Table 10.3, p. 266.

The family-sized farms of the mid-Atlantic, on the other hand, took advantage of the Caribbean food market to move into commercial production, away from subsistence. The trade figures for 1768–72 indicate the initial importance of the Caribbean to the commercializing process in the two regions. In these years, 18% of New England's commodity exports and 23% of that of the mid-Atlantic went to Great Britain and Ireland, while 64% and 44%, respectively, went to the Caribbean. What is even more important, particularly for New England, their export of shipping and other services (estimated at £820,000 yearly during the period) went almost entirely to the Caribbean as they were unable to compete with their counterparts in Britain in trans-Atlantic routes to Europe and the United Kingdom.⁵⁷

The subsequent expansion of plantation production of commodities (tobacco, rice, sugar, indigo, and, in particular, cotton) in the southern region of the United States in 1790–1850 accelerated the pace of the globalization process in the Atlantic basin. The three-year average annual value (f.o.b.) of plantation commodities produced for Atlantic commerce in the British Caribbean and southern United States taken together grew from approximately £13.4 million in 1794–96 to £21.6 million in 1814–16, and £43.3 million in 1854–56.⁵⁸ The phenomenal expansion of cotton production in the southern USA added a much larger intra-American market for food and services to the older Caribbean market, which stimulated the commercial production of food in the western region of the United States. At every point in the expansion of cotton production for export new opportunities for commercial production of food opened up in the west, inviting migration from within and from Europe.⁵⁹ This is reflected in Table 3.

As the northeastern region (New England and the mid-Atlantic) expanded its production of services to serve the growing markets in the south and west, to which it soon added import-substitution industrialization, its specialization also gave rise to an additional regional market for western foodstuffs. This tripartite inter-regional division of labour considerably increased the size of the domestic market which grew rapidly, partly as a result of large-scale immigration. Like the case of Brazil shown earlier, but even more extensive, inter-regional specialization and the rapid growth of the domestic market created transportation bottlenecks that provided incentives for the investment of capital in internal transportation improvement. First, an extensive network of canals was constructed; then the railways followed. In 1830, the first year of operation, there were only 23 miles of railways; this grew to 3,535 in 1841, 10,982 in 1851, and 208,152 in 1890.⁶⁰ The resulting decline in transportation cost completed the process of establishing an integrated national economy in the United States, with a large domestic market closely tied to the Atlantic market.

The growth of Atlantic commerce in 1650–1850, spurred on by the expansion of plantation production of commodities in the Americas, helped to integrate the economies of western Europe and those of the Americas into one economic system. In the first instance,

57 Gary M. Walton and James F. Shepherd, *The economic rise of early America*, Cambridge: Cambridge University Press, 1979, pp. 80, 90–4, 99–101, Table 22, p. 196. The authors suggest that the Caribbean food market provided the initial stimulus for commercial rice production in South Carolina (p. 44).

58 Inikori, *Africans and the Industrial Revolution*, Table 4.2, p. 176.

59 North, *Economic growth*, pp. 12–13.

60 Alfred D. Chandler, Jr, *The railroads, the nation's first big business*, New York: Harcourt, Brace & World, 1965, Table 1, p. 13.

Table 3. Cotton export and regional distribution of US population, 1820–1850.

Year	Cotton Export (\$000)	% Total Export	Population			
			South (000)	West (000)	Northeast (000)	U.S.A. (000)
1820	22,308.7	32.0	2,918.2	1,845.9	4,836.7	9,600.8
1830	29,674.9	41.4	3,774.4	2,980.3	6,066.2	12,820.9
1840	63,870.3	51.6	4,749.9	4,960.6	7,309.2	17,019.6
1850	71,984.6	49.9	6,271.2	7,494.6	9,301.4	23,067.3

Source & Notes: Compiled and computed from North, *Economic growth of the United States*, Appendix I Table A-VIII, p. 233, Appendix II, Table L-IX, p. 257. California gold production and export expanded from the late 1840s; in 1850 total production was \$41,273,106, of which \$27,676,346 (or 67.1%) was exported (*Ibid.*, Table H-IX, p. 255). This explains the decline in the percentage contribution of cotton exports in 1850.

the European imperial powers (Portugal, Spain, England, France) established what may be called appropriately colonial common markets with their American colonies. Within each of the four colonial common markets goods and factors moved freely, subject to the restrictions imposed by the imperial power.⁶¹ Ultimately, all four were linked through four powerful economic and political forces: (1) demand for the American plantation products in European countries without American colonies created lucrative re-export markets for the merchants of the colonial powers; (2) unequal military power among the colonial powers led to treaties that resulted in a de facto integration of the British-led and Portuguese-led common markets; Britain and Spain had somewhat similar arrangements; (3) the general dependence of Spain and Portugal on imported manufactures for their domestic markets and for re-export to their American colonies linked the supplying European economies to the Spanish and Portuguese American economies; (4) finally, and particularly important, the extensive trade linkages between British America and the other American economies, in which the former (mainland British America in particular) acted, for all practical purposes, as a powerful middleman on behalf of Britain, effectively integrated the British colonial common market with the other three.⁶²

The enlargement of the British American colonial territories over time by military successes, their cumulative dominance of plantation production of commodities for Atlantic commerce in 1650–1850, and the integration of the British colonial common market with the other three meant that the English economy secured a disproportionately large share of the rapidly expanding Atlantic commerce of the period. This is why the growth of Atlantic markets for English manufactures, in comparison with other West European economies of the time, was the most important of the several factors that contributed to the rise of England as the first industrial nation in the world in the mid-nineteenth century. The regional character of the Industrial Revolution offers some confirmation of the point. Virtually all the major technological innovations, which carried the industrialization process

61 This is the justification for the use of the term, colonial common market; members did not have equal rights. For legal privileges secured by shipbuilders in British America, see Inikori, *Africans and the Industrial Revolution*, pp. 277–8, fn. 19, p. 278.

62 *Ibid.*, pp. 210–14.

to its ultimate success, occurred in three initially backward regions, Lancashire, the West Riding of Yorkshire, and the West Midlands – the first two in particular – induced by their operation in Atlantic markets where they sold most of their output.⁶³

In the end the Industrial Revolution was powerfully instrumental in the final integration of the economies of the Atlantic basin into one economic system, the Atlantic economy. Its factory organization and mechanized manufacturing brought down the cost of production; the application of its technology to transportation overseas (the steam and steel ship) and over land (the railways in particular) slashed transportation costs; and its telegraph and other communication innovations reduced the cost of information in transacting business over long distances. The consequence was the effective establishment of division of labour between industrial and non-industrial economies in the Atlantic basin in the nineteenth century. The new technologies of the Industrial Revolution, as they deepened further and spread to other Atlantic economies, also became the basis for the extension of the Atlantic economic system to Asia, the Middle East, and Central and Eastern Europe to constitute the integrated global economy of 1914 described by O'Rourke and Williamson.⁶⁴

Africa's long-run contribution and the cost

Now, what was the role of Africa in the globalization process outlined thus far? The most important measure is to be found in the contribution of African labour to plantation production of commodities in the Americas in the critical period 1650–1850. The demography of the large-scale export commodity producing regions of the Americas demonstrates unambiguously that Africans and their descendants overwhelmingly dominated the labour force of the plantations. For all practical purposes, Brazil was an extension of Africa during the period in question. In 1798, 61.2% of Brazil's 3.3 million people were of African descent. Even with the large immigration of Europeans in the nineteenth century, 58% of Brazil's 9.9 million people in 1872 were of African descent. Because of their forced specialization in large-scale commodity production for export, the African population was concentrated in regions dominated by such production. The proportion of Africans in the population of the sugar-producing regions of Pernambuco and Bahia in 1798 was 68.2% and 78.6%, respectively; that of the gold-producing regions of Minas Gerais and Mato Grosso was 74.6% and 80.4%, respectively. In 1872, 64% of Pernambuco's 841,539 people were

63 Inikori, *Africans and the Industrial Revolution*; Stephen Broadberry and Bishnupriya Gupta, 'Wages, induced innovation and the great divergence: Lancashire, India and shifting competitive advantage in cotton textiles, 1700–1850', Paper presented at the XIV International Economic History Congress, Helsinki, Finland, 21–25 August 2006. The market-based explanation has also been developed for the case of the early industrialization in the United States by the research of Sokoloff: Zorina Khan and Kenneth Sokoloff, "'Schemes of Practical Utility': entrepreneurship and innovation among "great inventors" in the United States, 1790–1865', *Journal of Economic History*, 53, 2, 1993, pp. 289–307, among others. For an opposing view, see Joel Mokyr, *The lever of riches: technological creativity and economic progress*, Oxford: Oxford University Press, 1990.

64 O'Rourke and Williamson, *Globalization*, p. 2. The details of this development are beyond the scope of this article.

Table 4. Africans in the population of British America, 1650–1850 (percentage).

Year	British Caribbean	Southern Mainland British America
1650	25.4	2.4
1700	77.7	13.8
1750	89.4	40.5
1800	92.8	35.3
1850	95.9	37.1

Source: Computed from Inikori, *Africans and the Industrial Revolution*, Table 4.6.A, p. 194.

Africans; 72.3% of Bahia's 1.4 million; 57.6% of Minas Gerais's 2.0 million; 43.5% of Sao Paulo's 837,354 (the coffee plantations region).⁶⁵ It is important to note that the non-African population in the export commodity-producing regions of Brazil were employed almost entirely in activities induced by the multiplier effects of export production and in non-market production in some cases. It is, therefore, reasonable to say that the labour force directly involved in large-scale commodity production for export in Brazil during the period was almost entirely African.

The same thing is true of the Caribbean and the southern region of mainland British America, as Table 4 shows. On the eve of the plantation take-off in 1650, people of European origin made up three-quarters of the British Caribbean population and about 98% of that of southern mainland British America. As large-scale plantation production grew, the demography of these regions was transformed. The differing percentages of Africans in the population of the two regions are due largely to the amount of agricultural land available outside the plantation complex. In the Caribbean almost the entire land was devoted, in one form or another, to the plantations, leaving no space for small-scale subsistence European cultivators. In the mainland south, on the other hand, there was much land, though of poorer quality, outside the plantation system which allowed the presence of a large population of poor Europeans engaged largely in subsistence production. One scholar put it thus: 'In every census count from 1810 to 1860, about forty-five percent of the population in the lower South were [enslaved Africans]. A large proportion of the white population – about two-thirds in 1860 – did not own slaves . . . the bulk of the nonslaveholding whites were only marginally concerned with production for the market.'⁶⁶ In reality, therefore, plantation commodity production was dominated to about the same degree by Africans in both regions.

Africans and their descendants similarly dominated plantation production of commodities in the French, Spanish, and Dutch Caribbean during the same period, and the composition of their population bears it out. In 1681, Africans were 34.8% of the population of St Domingue (modern Haiti), the main French Caribbean producer; they were 94.3% in

65 Inikori, *Africans and the Industrial Revolution*, Table 4.5.A, p. 189, Table 4.5.B, p. 190.

66 Morton Rothstein, 'The antebellum South as a dual economy: a tentative hypothesis', in Eugene D. Genovese, ed., *The slave economies: volume II, slavery in the international economy*, New York: John Wiley, 1973, pp. 160–1.

1791. The comparable figures for Cuba are 43.8% in 1774, and 55.8% in 1827.⁶⁷ Cuba shared some common elements with southern mainland British America. Like the latter, Cuba had a relatively large amount of land outside the plantation complex, which permitted the presence of a large population of small-scale European cultivators of subsistence crops. Again, it should be noted, therefore, that the large population of Europeans notwithstanding, plantation production of commodities for export in Cuba was dominated by Africans as they did in the rest of the Caribbean at the time.

One area of commodity production for Atlantic commerce in the Americas not dominated by Africans was silver mining in Spanish America. Here, the coerced labour of Native Americans was dominant. Even so, it is estimated that the labour of Africans and their descendants contributed no less than 25% of the total output of silver in Spanish America in the sixteenth and seventeenth centuries.⁶⁸ What is more, gold production in Spanish America during the period 1500–1800 was dominated by Africans.⁶⁹

Why was the labour of enslaved Africans so important in large-scale commodity production for Atlantic commerce during the period under consideration? The main reason was the abundance of land. As we have seen (Table 2), population density in the settled area of Brazil was 3.9 per square km in 1600; when the population more than tripled in 1700, density in the settled area fell to 3.2, which shows the abundance of land waiting for settlers. When the population grew from 3.3 million in 1800 to 18.0 million in 1900, the settled area expanded from 324,000 square kms to 988,700 square kms, giving a density of 18.2.

It was this general abundance of land that made it impossible to produce on a scale considerably beyond the scope of family labour in the Americas at this time, because easy access to land meant that few were willing to offer their labour for a wage without coercion. Adam Smith had disparaged slave labour for its inefficiency.⁷⁰ Coming from the authority of Smith, this has encouraged some to underrate the contribution of slavery, especially African slavery in the Americas, to the development of the global economy. However, Smith's claim about slave labour contradicts his opening argument concerning the virtue of gang organization of labour,⁷¹ as pointed out by the editor of the 1835 edition of *Wealth of Nations*, Edward Gibbon Wakefield, who demonstrated that wherever easy access to land prevailed gang organization of free labour for staple production was not possible; only coerced labour would allow gang organization under such conditions. Wakefield concluded that since those conditions existed in the plantation zone of the Americas, Smith's generalization was not valid there.⁷²

Combining Smith's principle concerning the virtue of gang labour with Wakefield's conceptual clarity about the importance of coerced labour under conditions of unlimited supply

67 David Watts, *The West Indies*, Cambridge: Cambridge University Press, 1987, Table 7.9, p. 320, Table 7.10, p. 321.

68 Inikori, *Africans and the Industrial Revolution*, p. 185.

69 *Ibid.*, pp. 184–5, fn. 84 and fn. 85, p. 185; Harry E. Cross, 'South American bullion production and export, 1550–1750', in J. F. Richards, ed., *Precious metals in the later medieval and early modern worlds*, Durham: Carolina Academic Press, 1983, pp. 410–11.

70 Adam Smith, *The wealth of nations*, edited by Edwin Cannan, New York: Modern Library, 1994, p. 92.

71 *Ibid.*, p. 3.

72 Seymour Drescher, *The mighty experiment*, Oxford: Oxford University Press, 2002, pp. 56–8.

of land provides a powerful insight for our understanding of the real contribution of coerced African labour to the growth of Atlantic commerce presented earlier in the article. It made possible large-scale organization of staple production in the Americas. This scale of production, together with the below-subsistence cost of their labour – the enslaved Africans bore part of their subsistence cost by stretching themselves to work their provision plots in their free time – brought down considerably the cost of staple production over time. Thus, a pound of sugar that had exchanged ‘for more than its weight in precious metals in late medieval Europe’⁷³ was sold for one shilling and three pence (1s 3d) in England in the 1630s; the price fell further to seven pence (7d) in the 1680s, even with an increase in the import duties. The prices of other American plantation commodities, such as tobacco, followed a similar trend, a development ‘which introduced the middle classes and the poor to novel habits of consumption’ and opened up ‘vast new sources of demand’ in Europe.⁷⁴ The ramifying effects of these developments in western Europe – pulling subsistence producers into production for the market in order to sustain the new consumption habits, David Hume’s import effect⁷⁵ (the so-called ‘industrious revolution’⁷⁶), growth and geographical spread of the market economy – combined with the unusually fast growth of incomes in the Americas (particularly mainland British America) to propel the expansion of Atlantic commerce and globalization in the Atlantic basin from the mid-seventeenth to the mid-nineteenth century.

While making this critical contribution to the growth of Atlantic commerce, the economies of western Africa fell behind in the commercializing process that was central to globalization in the Atlantic basin during the period. Two quantitative measurements help to confirm the general impression that comes from the qualitative evidence: changing commodity composition of imports and long-run movement of domestic prices. Data on the latter are still being collected and are yet to be fully processed. The discussion here is, therefore, limited to the former.

A large body of statistical evidence shows important long-term changes in the commodity composition of imports into the sub-regions of western Africa that match the expansion of their export of captives over time. Because of space constraint, we present a summary discussion of the evidence pertaining to the Gold Coast (modern southern Ghana), the Bight of Benin (modern Togo, Republic of Benin, and southwest Nigeria), and the Bight of Biafra (southeastern Nigeria and coastal Cameroon). The Gold Coast began trading with Europeans from the second half of the fifteenth century, while the Bights of Benin and Biafra did so in a significant way from the mid-seventeenth. In all three sub-regions the character of the imports in the early decades of the trade differed considerably from that of the later decades when they had become major exporters of captives to the Americas.

73 Richard Drayton, ‘The collaboration of labor: slaves, empires, and globalizations in the Atlantic World, ca. 1600–1850’, in Hopkins, ed., *Globalization*, p. 101.

74 Ralph Davis, ‘English foreign trade, 1660–1700’, *Economic History Review*, 2nd series, VI, 1954, pp. 80–82.

75 Inikori, *Africans and the Industrial Revolution*, p. 126.

76 Jan DeVries, ‘The industrious revolution and the Industrial Revolution’, *Journal of Economic History*, 54, 2, 1994, pp. 249–70.

The earliest quantifiable record of imports into the Gold Coast, published by John Vogt, covers 1529–31.⁷⁷ Analysis of the gold value of the imports for the period shows the following: metal hardware (mainly brass), 50%; cloth (mostly ‘unfinished finely-woven cotton cloth’), 25%; slaves (brought by the Portuguese from other parts of western Africa), 19%; beads, 3%; others, 3%. Vogt notes that ‘the majority of metal goods were bought by Africans to be melted and recast into objects of local designs’.⁷⁸ Additional evidence for the early decades comes from Johnson who reports ‘large imports of cowries [into the Gold Coast] in the sixteenth century’.⁷⁹ In the Bight of Benin, the imports for the early decades were dominated by commodity currency (cowries). Data for the very early decades are currently lacking. Collected and processed evidence shows that in 1681 cowries were 59.2% of the total value of the imports, 52.4% in 1684, and 38.6% in 1690–92.⁸⁰ Commodity currency (mainly small copper rods weighing about one pound each) also dominated the imports of the early decades of European trade in the Bight of Biafra – 67.6% in 1661; 64.9% in 1684; 35.7% in 1693.⁸¹ Another important feature of the imports into the Bight of Biafra in the early decades is the relatively large share of intermediate goods (mainly iron bars): 9.4% in 1661; 21.5% in 1684; 25.5% in 1693.

As these regions became large-scale exporters of captives and very little else, the composition of the imports changed radically. In 1791, commodity currency was 2.9% of imports into the Bight of Biafra; intermediate goods, 2.8%. Whereas very few firearms and textiles were imported into the Bight of Biafra in the early decades, in the second half of the eighteenth century they dominated the imports – firearms were 27% of the imports in 1791; textiles, 46.6%.⁸² The combined nineteenth-century data for the Bights of Benin and Biafra show the following shares in 1828–30: cowries, 0.1%; all metals (copper bars, iron rods, but excluding guns), 5.3%; firearms, 32.8%; textiles, 26.8%; alcohol, 14.4%.⁸³ On the Gold Coast, the most important change was the disappearance of labour import as the region was transformed from a major exporter of gold to a major exporter of captives from the mid-seventeenth century. Its import of commodity currency also declined until after its export of commodities expanded again and its captive exports diminished almost to zero following British abolition and effective naval policing of the Gold Coast: the quantity of cowrie imports (three-year annual average) grew from 25.4 tons in 1827–29 to 304.4 tons in 1845–47.⁸⁴ Another major change during the captive export era is the growth of imports of firearms and finished consumer manufactures.

Now, what do these long-run changes in the composition of imports tell us about the commercializing process and globalization in western Africa during our period? As

77 John Vogt, ‘Portuguese gold trade: an account ledger from Elmina, 1529–1531’, *Transactions of the Historical Society of Ghana*, 14, 1, 1973, pp. 93–103.

78 *Ibid.*, pp. 93–4.

79 Johnson, ‘Cowrie currencies’, Part 2, p. 333.

80 Inikori, ‘Transatlantic slaving’, Table 1.

81 *Ibid.*, Table 2.

82 *Ibid.*, Table 2.

83 *Ibid.*, Table 3.

84 *Ibid.*

mentioned earlier, the product trade in the early decades of European commercial enterprise in western Africa further reinforced the pre-European ongoing development and geographical spread of the market economy in West Africa. On the Gold Coast, the multiplier effects of export production created conditions which encouraged Asante merchants to invest profits made from the gold trade in large-scale forest clearing to create farmlands. This was the occasion for the labour import shown in the records.⁸⁵ In the pre-European inter-regional division of labour that was evolving in West Africa, the Gold Coast had exported mainly gold and kola nuts in exchange for textiles and other manufactures from the Niger bend and other parts of the interior savannah (particularly Hausaland in Northern Nigeria). The transformation of the Gold Coast into a major exporter of captives to the Americas retarded the developing inter-regional specialization and the growing commercialization of agriculture. Increasingly the export captives were brought from the interior with which the Gold Coast had traded gold and kola nuts for manufactures. Because the captives were forcefully taken from the interior populations (like stolen goods), no market exchange of goods for other goods took place between the victim interior populations and the captors, in the first instance. On the other hand, the coastal societies and their immediate hinterlands, which provided the chain of middlemen through whom the European traders procured the captives exported, now got their consumer manufactures from the European traders in exchange for the captives, instead of the interior suppliers. Adding the high cost of transaction resulting from the wars and general insecurity engendered by the violent procurement of captives for export, the result was the growth of enclave economies in the coastal societies and their immediate hinterlands. These developments were shared in somewhat differing ways by the Bights of Benin and Biafra and they are mirrored by the changes in the composition of imports.

The disappearance of labour from the Gold Coast imports mirrors the termination of Asante merchants' investment of profits from trade in commercial agriculture;⁸⁶ the violent procurement of captives exported in exchange for consumer manufactures and declining population⁸⁷ did not produce multiplier effects that induced the investment of profits from trade in production for the market. The decline of currency imports is a reflection of the general decline in the growth of the market economy and inter-regional trade. The currencies imported were used only in local exchanges; European-African exchanges were by barter. Increases in currency import were, therefore, a measure of growing internal trade requiring corresponding growth in the quantity of money in circulation, while a decline in imports corresponded to contraction of market activity. On the other hand, the growth of firearms import in the records mirrors the endemic state of warfare associated with the trade in captives. Again, all this was shared in somewhat differing ways by the Bights of Benin and Biafra. And what the trade figures tell us is consistent with what we know of the generally low level of market development and the dominance of subsistence production in western

85 Ivor Wilks, 'Land, labour, capital and the forest kingdom of Asante', in J. Friedman and M. J. Rowlands, eds., *The evolution of social systems*, London: Duckworth, 1977; *Forests of gold: essays on the Akan and the kingdom of Asante*, Athens, OH: Ohio University Press, 1993, pp. 1-90.

86 Ivor Wilks, *Asante in the nineteenth century*, Cambridge: Cambridge University Press, 1975; Kea, *Settlement*.

87 Patrick Manning, *Slavery and African life*, Cambridge: Cambridge University Press, 1990.

Africa in the mid-nineteenth century, relative to the economies of the Americas that had been far behind in market development in the late fifteenth century. With the vast majority of the people engaged largely in non-market production, western Africa's economies were not a significant part of the integrated commodity production processes in the Atlantic basin when the Atlantic slave trade ended in the mid-nineteenth century.

Conclusion

The rapid growth of global history since the 1990s has carried with it a considerable ambiguity concerning what constitutes globalization as a historical process. This makes it difficult to demonstrate with sufficient clarity the contribution of Africa to the process and the cost the continent's economies paid for that contribution. Viewed from the standpoint of the phenomenon popularized as globalization by the media in the 1990s, it is clear enough that the central issue to address in globalization, particularly the economic aspect that is the focus of this article, is the long-run historical processes which produced our current 'global village', with its defining elements of integration and hierarchy. We have argued that integration is not just a matter of trade connections, but trade linkages that involve integrated commodity-production processes across the globe, with far-reaching effects on the material living standards of the vast majority of people worldwide. By extension, we have argued that trade linkages with such global effects could not exist so long as the majority of people in the world produced largely for their own immediate consumption and not for market exchange. An important part of the globalization process, therefore, entailed the evolution of domestic markets and the movement of people out of subsistence production into production for the market. This conceptual thrust of our analysis enables us to reject several arguments in the literature: arguments that trace the historical development of our current global order to five thousand years ago or more; arguments that equate the existence of trade connections in themselves with the establishment of an integrated global economy; arguments based on the prior development of capitalism in Europe as the initial engine that drove the globalization process from the sixteenth century (there was no capitalist economy in Europe in 1500); arguments that internally generated industrial revolutions in Europe precipitated the globalization process in the last quarter of the nineteenth century – all these arguments make it difficult to assess Africa's contribution. We have had to demonstrate their conceptual and factual weakness in order to proceed with the main issue addressed in the article.

The article has argued fundamentally that though there were earlier processes none produced an integrated global economy; they were all aborted for various reasons. The one which produced the current global order started in the sixteenth century in the Atlantic basin and gave rise to an integrated economy in that region in the nineteenth century, the Atlantic economy, which became the nucleus of the subsequent global economy, as it expanded in the course of the nineteenth century to incorporate rival systems, especially the Indian Ocean trading system, to establish a single global economy before the outbreak of the First World War. The details of the latter issue are beyond the scope of this article. We have shown that the forced labour of Africans employed in plantation production of commodities for Atlantic commerce between the mid-seventeenth and mid-nineteenth

century was central to the development of the Atlantic economy. But, at the same time, the character of the Atlantic slave trade that provided that labour retarded the development of market economies in western Africa and kept the region's economies largely out of the integrated commodity production processes of the Atlantic economy until the abolition of that trade in the mid-nineteenth century.

The article has focused consciously on process analysis. It has drawn attention to the neglect of the long-run process of integration in the literature. While the issue of hierarchy and its attendant consequences that have dominated the literature remain critically important, we must not lose sight of the process of integration that gave rise to the current 'global village'. The article takes the position that globalization as a historical process was regionally based for several millennia, with manifestations in increasingly enlarged socio-political interactions and trading networks. These were to be found in all major regions of the world at different points in time. The process did not progress linearly in any region. There were ruptures and redirections. The process that started in the Atlantic basin in the sixteenth century was regional initially, like all others. It was its unrivalled success that made it the nucleus of the modern global system. This is an important point to note as the global history debate continues.

Joseph Inikori is Professor of History at the University of Rochester.