

Africa's Development in Historical Perspective

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African Population, 1650–2000: Comparisons and Implications of New Estimates

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New and comprehensive estimates of African population, at regional and continental levels, suggest that from the seventeenth to the twentieth century the continent's population was much larger in size yet growing at a slower rate than previously thought. In a project that is nearing completion, Scott Nickleach and I, with the assistance of Yun Zhang, Brian McGill, and Bowen Yi, are projecting African populations from 1950 back to 1650.¹ The analysis relies on a combination of methods that account for decennial and regional estimates of net growth rates, effects of various social and environmental factors, and especially the demographic impact of enslavement and the attendant migration and mortality. Two hypotheses – a dense early modern African population and a decline in African population because of slave trade – are linked tightly together.

The present chapter focuses on the social implications of this new demographic argument. It begins with a concise summary of the new estimates at continental and regional levels, a comparison with previously accepted figures, and a brief exploration of the plausibility of the new figures. The bulk of this chapter discusses global comparisons of African population estimates and focuses especially on the main economic and social implications of these new estimates for our understanding of African history.

4.1 SUMMARY OF THE DEMOGRAPHIC ESTIMATES

The analysis begins with the dependable figures for the late twentieth century and works stage by stage to earlier times. For this reason, the discussion of the overall results, summarized in Table 4.1, moves from the most recent period to earlier periods.

¹ Work in process is to appear as Manning and Nickleach (forthcoming).

Table 4.1. *Estimated African population by region, 1700–2000, in millions*

	West	Central	Southern	East	Northeast	Northern	Total
2000	226	93	50	172	112	154	807
1950	60	26	15	42	33	44	220
1890	41	19	10	26	20	29	145
1790	46	17	12	22	22	23	141
1700	50	22	10	20	19	17	138

The period from 1950 to 2000 was one of record-setting population growth, at net growth rates consistently more than 2.5 percent per year. This growth rate resulted especially from rapidly falling rates of mortality: from 1950 to 1990, the expectation of life at birth for the average African rose from thirty-five years to fifty years. This dramatic decline in mortality accompanied the accession of African nations to independence and substantial expansion in public health expenditures by the new governments and, in preceding years, by late colonial governments. In addition, a worldwide decline in mortality resulted from the spread of antibiotics and many other improved medical treatments. (Then, in a devastating change, average expectation of life decreased drastically in southern and eastern Africa during the 1990s as a result of the AIDS crisis, and declined to a lesser degree elsewhere on the continent.)

In the preceding sixty years, from 1890 to 1950 – the colonial era for most of Africa – African populations gradually shifted from stagnation to demographic transition. Populations rose at a very modest rate from 1890, then accelerated from 1920 to 1950. The most rapid decline in mortality rates took place at the end of this period in the 1940s, as DDT spraying reduced malaria incidence in many areas, enabling rapid population growth. African growth rates were much smaller than those assumed by colonial officials, however, so that the African populations were substantially larger than the estimates prepared by colonial regimes. Population growth was held down by the violence that continued on a substantial scale from 1890 to 1920: enslavement continued in the regions not yet under European control and the establishment of European control meant wars of conquest, repression of rebellions, and forced recruitment of laborers.

The era from 1790 to 1890 included the peaks of three waves of enslavement – the 1790s peak of the transatlantic slave trade, the 1870s peak of the trans-Saharan and Indian Ocean trades, and the 1850s peak in enslavement of people held within the continent. The combination of these factors

created serious negative pressure on African regional populations – with the worst effects felt first in West Africa, then in Central Africa, then in East Africa, and finally along the northern savanna. Overall, African population remained stagnant slightly from 1790 to 1890.

From 1450 to 1790, the Atlantic slave trade grew irregularly. From 1650, the drain of enslavement became sufficient to reduce population size in various regions of the western coast of Africa, and by 1730, a general decline had begun in the population of coastal West and Central Africa, continuing until the 1850s. Because most of the captives sent across the Atlantic were male, a significant shortage of adult males developed within West and Central Africa and brought a substantial transformation in gender relations.

The methods used for these population estimates rely on projections backward in time. The projections start from 1950 and trace population for seventy regions of Africa corresponding to national and provincial boundaries of today, selected in such a way as to be representative of economic and social regions of earlier times. For the twentieth century, the projections rely on crude rates of growth drawn from study of a wide range of factors. For the nineteenth century and before, the analysis relies especially on a simulation that accounts for the age and sex composition of free populations and of those enslaved. The work includes new estimates of the volume and direction of the transatlantic slave trade, based on statistical analysis of the well-known “Voyages” dataset (Eltis).

4.2 NEW VERSUS PREVIOUS ESTIMATES

In general, the new estimates differ from previous estimates in that they were constructed through a comprehensive analysis. Previous studies took a piecemeal approach, investigating restricted regions, short periods of time, a limited range of social interactions, or simple continental guesstimates. Addressing the fuller scope of issues permitted the location of contradictions, lacunae, and errors in analysis. The effort to address the full range of issues in African population history has resulted in a more internally consistent argument. The groundwork for this analysis was the research performed on African populations under the auspices of the United Nations. For 1950–2000, the current decennial estimates of African population published by the United Nations Population Office are broadly dependable, thanks to years of review and analysis by demographers at the UN and elsewhere. The population totals for 1950 and 1960 are well above those first reported in censuses and surveys at the moment of African national

independence. Thus, the true size of the African population in recent decades has only gradually come to be recognized.

Documenting African population for the years before 1950 will require an approach analogous to that successfully applied to the post-1950 years: large-scale, collaborative work, piecing together the many available shreds of evidence into a coherent global pattern. The program of estimation reported on here is an initial stage in the comprehensive analysis of the African demographic past that needs to be pursued.

Meanwhile, the literatures on African history, economic history, and demographic history have generally been skeptical of the notion that Africa had a large and dense population from early modern times, skeptical of the notion that African rates of population growth were lower than those of other regions, and skeptical of the notion that enslavement caused decline in African population. Thus this argument for the plausibility of the new estimates requires commentary on the preceding threads of skepticism about the idea of a dense pre-slave-trade African population.

An initial basis for skepticism about large early modern African populations arose from methodology – from the piecemeal approach of studies in demographic history. Perhaps understandably, scholarly studies from the 1960s through the 1980s worked on short periods of time and portions of the African continent, so they were never able to compare the figures they were using with continental figures. West Africanists studied the Atlantic trade; East Africanists, after a delay, studied the Indian Ocean trade; a continental picture did not yet exist.² For the precolonial era, analysts have given insufficient attention to the difference between the nineteenth century, when enslavement raged over most of the African continent, and the previous centuries, when the Atlantic slave trade was the main engine of the patterns of migration and social disruption that affected West and Central Africa most severely.

A second skepticism is based on a habitual reliance on colonial statistical records. During the years before World War II, it was widely assumed that the African continental population had risen from about 100 million in 1900 up to about 130 million in 1930 (Carr-Saunders 1936; Kuczynski 1934; Willcox 1931). It has only recently been noted that, to reach from

² And this despite the fact that continental estimates of African population had been advanced since the seventeenth century and were prominently published during the twentieth century. My 1990 attempt at a continental picture fell short in at least two ways: it was not linked to post-1950 populations and it did not enable readers to verify its calculations (Manning 1990).

130 million in 1930 to 220 million in 1950, Africa's population would have had to grow at 2.7 percent per year through depression and war. Global comparison shows that no large population worldwide was growing at such a rate before 1950 – the growth rate must have been lower and the earlier populations must have been higher. That is, African populations of the early twentieth century turn out to have been significantly underreported. Such underreporting is understandable from the viewpoint of African communities. Presumably, African communities had little incentive to present themselves for enumeration when the main results of enumeration were taxation and recruitment rather than provision of social services. Only from the 1950s, once social services began to appear in the national era – and when political representation began to be determined by population size – did the response to population surveys grow more positive.

A third basis for skepticism about the size of African populations and the effects of slave trade came from comparison with European migration. This was a comparison of European transatlantic migration (1850–1940) with transatlantic trade in African captives (mostly from 1650 to 1850). Because it was known that Europe, in the years after 1850, was able to grow in population even as large numbers of migrants left their home countries, it seemed to many observers that Africa ought also to have been able to avoid population decline. After all, Africa's 10 million emigrants compared to Europe's 50 million. Nonetheless, a detailed analysis shows that Africa's export slave trade was indeed sufficient to reduce the population of major regions and, for more than a century, of the continent as a whole. The negative factors that made the difference were the high general levels of mortality for Africa, the additional mortality brought by the violence of enslavement, the loss of young adult females and their offspring, and the high levels of maritime mortality in the days before steamships. For the reproduction of African population, the key group was fertile females, generally those in the age group from fifteen to forty-five. As soon as enough of them died or were exported, the result would be sufficient to halt population growth.

A fourth basis for skepticism, questioning the negative impact of enslavement on African population, argued that African nutrition improved with the arrival of American crops (maize, manioc, peanuts, etc.), and that African population therefore expanded. This argument – focusing on the era from the sixteenth to the nineteenth centuries – while plausible, has not yet come close to verification. That is, we have yet to verify when American crops became a significant portion of African diets, and have yet to verify that they were substantially more productive than the previous African

crops (Manning 1982a; Wigboldus 1986).³ It is possible, therefore, that Africans of the nineteenth century had a broader diet but consumed no more calories than their predecessors of the sixteenth century.

All of these reasons apply to the post-1450 period of Atlantic maritime voyages. An additional element of the overall African demographic debate is that of whether African population in earlier – “medieval” – times was dense or sparse. Some researchers claim that the population of coastal regions of West Africa and Central Africa had been extremely sparse in these times, and that they were settled from further inland only in early modern times. For instance, scholars have argued that the prevalence of malaria and other tropical diseases prevented population from becoming dense. This type of argument lacks plausibility because the presence of infectious disease, while a negative factor in the short term, is a clear indication that a dense population has existed in a region over the long term, as such a population was necessary to sustain the disease. Language distribution is another key to the historical depth and density of population: for West Africa in particular, the distribution of subgroups of the Niger-Congo language group indicates that populations have lived and migrated – in both the forested and savanna zones – for thousands of years, with a time depth far greater than that of populations in Europe (Williamson and Blench 2000, 11–42).⁴ This does more to demonstrate that West African population was ancient than that it was dense, but it dismisses the notion that any regions of West Africa were unsettled (Figure 4.1).

Walter Willcox, A. M. Carr-Saunders, and R. R. Kuczynski, writing in the early 1930s, argued for a relatively static African population of about 100 million from 1650 to the late nineteenth century, and for a population of roughly 130 million in 1930 (Carr-Saunders 1936; Kuczynski 1934, 240–8; Willcox 1923). Caldwell and Schindlmayr argued forcefully against this vision, on the grounds that Africans had expanded into previously underpopulated areas from the sixteenth century, relying on new crops from the Americas.⁵ Caldwell and Schindlmayr note approvingly “a collapse of the earlier African consensus” after 1970, as Durand, McEvedy, and Jones and

³ On maize: (McCann 2005; Miracle 1966). These works, while highly valuable for the nineteenth and twentieth centuries, provide little dependable information on the initial adoption and spread of maize in Africa.

⁴ For the methods of this analysis, see Christopher Ehret, *History and the Testimony of Language* (Berkeley: University of California Press, 2010).

⁵ “Kuczynski was admittedly a demographic conservative, and as late as 1944... was arguing that Africa and probably most of the developing world was then not more populated than it had been 200 years earlier” (Caldwell and Schindlmayr 2002, 186). See also Kuczynski (1944).

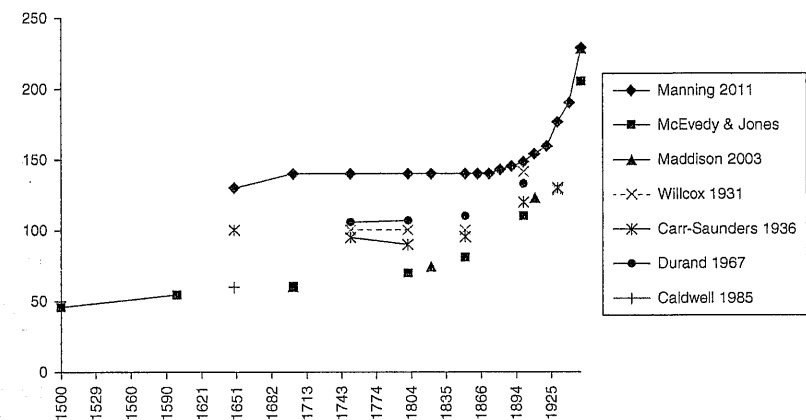


Figure 4.1. New and previous estimates of African population, 1500–2000.

Sources: Previous estimates from McEvedy and Jones (1978), Willcox (1931), Carr-Saunders (1936), Maddison (2001), Durand (1965), Biraben (1979), and Caldwell and Schindlmayr (2002).

Maddison each set African population at the much lower figure of about 50 million in 1500.⁶ John C. Caldwell remains unsurpassed in his knowledge of African demography in late colonial and early postindependence Africa, and his analysis was crucial in unraveling the “consensus” among demographic historians that prevented an appropriate linkage among pre-colonial, colonial, and postcolonial demographic studies. But his willingness to treat Africans of the eighteenth century as just entering the Neolithic, combined with his neglect of the severity of enslavement throughout the continent, led him to assume rapid African population growth from the sixteenth through the nineteenth century when such growth was quite impossible.⁷

⁶ Caldwell and Schindlmayr argue an extreme version of this hypothesis, claiming that the loss to enslavement “probably did not translate into a comparable diminution of the rate of natural increase, and certainly not to a population decline, for three reasons. The first is that ... the loss of some of the population probably allowed others to survive. The second reason is that only one-third of those transported as slaves were females. ... The third point is that the period of slavery coincided with the spread of new foodstuffs introduced from the Americas, fostering slow but continuing population growth. ... It is extremely doubtful whether either the absolute or relative decline of Africa’s population ever took place” (2002, 196–7).

⁷ Caldwell and Schindlmayr argue that, “The spread of the Neolithic revolution in the form of hunting giving way to farming continued throughout the nineteenth and twentieth centuries and is still not complete.” This argument that Africans were just reaching the Neolithic is particularly surprising given the ample evidence that the African iron age

4.3 GLOBAL COMPARISONS

The new estimates of African population, when compared with populations elsewhere in the world, are shown to be different indeed from previous estimates. Table 4.2A shows Maddison's population estimates for Africa and other world regions; Table 4.2B shows the new African estimates along with Maddison's estimates for other regions. The new figures in Table 4.2B show that, from 1700 to 1900, African population was roughly stagnant, while the populations of all other major world regions grew at accelerating rates: by 1900, African population had declined to no more than one tenth of the global total. African populations began growing during the twentieth century as growth rates slowed in some areas and accelerated in others. In the last half of the twentieth century, African populations grew at a very high rate, and by the time these growth rates began to decline, African population had again reached one seventh of the world total.

Along with the planetary comparison of Table 4.2, here are some additional comparisons of population size and density. Comparing Africa with Eurasia reveals a remarkable parallel in population density. Africa, in its surface area, has some 30 million square kilometers, while Eurasia has some 53 million square kilometers. Africa's current population is roughly one billion, while that of Eurasia is roughly four billion. Thus, Africa's population density is now just short of half that of Eurasia.⁸ For 1700, Maddison shows Eurasian population at 530 million and African population at 60 million; the new estimates show an African population of 140 million in 1700. Thus the new estimates show an African population density that was half that of Eurasia – the same ratio as at present – while Maddison's figures propose an African population density in 1700 that was less than one fourth that of Eurasia. That is, the old estimates argue that Africa was consistently a sparsely populated continent until very recent times; the new estimates argue that Africa was not far behind Eurasia in density and has maintained

began at the same time as that of Eurasia, some two thousand years before the Atlantic slave trade expanded (Caldwell and Schindlmayr 2002, 197). Twenty years earlier, Caldwell had acknowledged the validity of my assertion that slave trade had the capacity to reduce African population, though at that time too he preferred the argument that American crops had overcome all obstacles to African demographic growth (Caldwell 1982); see also Manning (1981 and 1982b).

⁸ This comparison in continental areas can be adjusted by accounting for underpopulated areas – the Sahara in Africa; Arabia and Siberia in Eurasia – yet the results tend to cancel out. Still another version of the comparison is to compare populations to areas of arable land for Africa and Eurasia – these too tend to show an African density about half that of Eurasia.

Table 4.2A. *Size and proportion of world population, 1700–1950*
Maddison estimates by world region (showing % of global population)

	1700	%	1820	%	1913	%	1950	%
Africa	61	10	74	7	123	6	228	9
Asia	402	67	710	68	978	55	1382	55
L. Am	12	2	21	2	81	5	166	7
Europe	125	21	224	22	497	28	572	23
W. offshoots	2	0	11	1	111	6	176	7

Table 4.2B. *New estimates for Africa, Maddison estimates elsewhere*

	1700	%	1820	%	1913	%	1950	%
Africa	140	21	140	13	145	8	228	9
Asia	402	59	710	64	978	54	1382	55
L. Am	12	2	21	2	81	4	166	7
Europe	125	18	224	20	497	25	572	23
W. offshoots	2	0	11	1	111	6	176	7

Source: (Maddison 2001, 175, 183). Maddison's "Western Offshoots" include the United States, Canada, Australia, and New Zealand; "Europe" includes the entire territory of the former Soviet Union. I calculated the growth rates shown.

or periodically regained its relative position in population density over the centuries.

Comparing Africa and Europe reveals a remarkable parallel in population size over the long term and shows both parallels and contrasts in the history of migration. European and African populations are roughly equal today, but Europe's population density is three times that of Africa; Europe (including Russia) is only 10 million square kilometers in area. The two regions had equal populations of some 140 million in 1700. European populations rose at a steady rate, however, while African population remained stagnant until the mid-twentieth century. In migration, Europeans outnumbered Africans as out-migrants from 1500 to 1600, Africans outnumbered Europeans as migrants from 1600 to 1850, Europeans outnumbered Africans again until 1960, and African migrants grew in number thereafter. Among other differences in the migratory patterns were that, in the era of slave trade, there were few slaves among European migrants, and European migrants were able to return home. After 1850, European migrants traveled on low-mortality steamships, while the ongoing African slave trade

continued to exact a high toll in mortality. Some factors worked in the opposition direction. In monogamous Europe, the absence of males left women unmarried or marrying later in life, thus affecting their fertility. In polygynous Africa, the remaining women still had children in marriage or concubinage; indeed, it seems that the long-term shortage of males brought by slave trade expanded the frequency of concubinage (if not of formal marriage) in Africa.⁹

Africa and the Americas provide remarkable contrasts in population history. The Americas have 41 million square kilometers in area, but if one subtracts the 10 million square kilometers of sparsely populated Canada, the result is equal to the area of Africa. At present, the populations and therefore the population densities of Africa and the Americas are roughly equal. In 1700, however, the Americas had only some 13 million inhabitants (at least two million of them of African descent), so that the population density of the Americas was one tenth that of Africa.¹⁰ Among the variations in patterns of population were that American populations declined sharply because of disease during the sixteenth and early seventeenth centuries, while from 1650 to 1850 African populations declined through slave trade as American populations rose through African immigration and recovery of the indigenous population. American populations grew rapidly through European migration after 1850 while African populations remained stagnant.¹¹

4.4 AFRICAN IMPLICATIONS

The new demographic estimates for Africa, when combined with a reconsideration of the continent's economic, social, cultural, and ecological conditions, yield a substantially revised picture of African life. This section begins by laying out the main elements of the revised picture, then turns to explaining the logic of the new picture and providing recommendations on ways to pursue the reinterpretation of precolonial and colonial Africa.

⁹ The large-scale, steamship-borne migrations from 1850 to 1940 transported migrants from other densely populated regions (Europe, East Asia, South Asia), but not from Africa. Only by 2000, when Africa had again become relatively densely populated, did overseas African emigration again become significant (McKeown 2004).

¹⁰ Or an American population density one fourth that of Africa, using Maddison's population estimate.

¹¹ During the sixteenth and seventeenth centuries, African populations too may have been limited by the global circulation of diseases in that era.

African populations from 1500 to 1700 were relatively dense, linked with one another in various networks of exchange, relying on local moneys. Except along the fringes of the Eurasian commercial system, African states were small. A sort of "informal economy" enabled many to participate, if marginally, in the continental system of exchange. Mortality was high, many were poor, and reliance on external trade was minimal. Yet to treat this as a system of relatively dense population, we must assume that people were linked through networks of exchange rather than reliant on self-sufficiency in isolated households. From 1700 to 1900, slavery expanded in region after region of the continent, bringing violence, refugee life, increased mortality, new sorts of hierarchy (notably an expanded gender hierarchy), a growing proportion of the population in slavery, and the rise of states that relied significantly on warfare and enslavement. External trade – for which exports relied especially but not only on slaves – grew steadily from 1700 to 1900. From 1900 to 1950, African populations recovered from the pressure of enslavement and the shock of colonial conquest, and gradually entered an era of lower mortality. African economic growth (measured in terms of domestic product or external trade) remained relatively slow during the nineteenth and twentieth centuries except for occasional bursts of positive or negative growth; demographic growth became strongly positive from the 1940s to the 1990s.

As a framework for assessing African socioeconomic life, we may begin with that offered in 1973 by A. G. Hopkins, whose groundbreaking analysis of West African economic history crystallized the analysis of African economies through his distinction of "the domestic economy" from the "external trade" that crossed the desert and the ocean (Hopkins 1973). In these terms, African total output or Gross Domestic Product is the sum of the output of the domestic economy and the net value of external trade. Hopkins's two-sector model, although proposed for the interpretation of precolonial African economies, has in fact remained the default system for analyzing African economies from earliest times until the present. While this formulation is entirely logical, we will see that it has severe practical disadvantages. That is, while Hopkins proposed the two-sector model in an effort to draw attention to the size and diversity of the domestic economy, in practice, the historical and contemporary analysis of African economies has focused overwhelmingly on external trade. The domestic economy is commonly left out of discussion; further, it is widely presumed to have been homogeneous and rudimentary.

Viewed in this two-sector framework, the new estimates of African population imply a major rethinking of African economic structures. The new

population figures suggest that the “domestic economy” was much larger than has been realized, and that “external trade” was a smaller proportion of GDP than previously realized. That is, the historical levels of sub-Saharan African external trade – across the oceans and desert – are known, within an order of magnitude. Now that we have new and higher estimates of African population, it is necessarily the case that estimates of output in the domestic economy for sub-Saharan Africa are larger than before, and that the ratio of intercontinental trade to GDP will appear smaller.¹²

For present purposes, therefore, the framework of the “domestic economy” appears vague and inadequate in that it avoids specifying the levels of exchange and economic interaction within the continent. The estimate of a larger population leads by demographic logic to the presumption of an expanded, continent-wide domestic economy. The same estimate of a larger population also leads, by the logic of economic productivity, to the presumption of substantial sectors of regional and local exchange networks. This expanded domestic sector is best treated in terms of a range of subsectors: self-sufficient production (including foraging), local exchange (with attention to occupational specialization), cross-regional and monetized commerce within sub-Saharan Africa, and the secondary and tertiary sectors of governance, knowledge, and cultural production. The “external trade” sector, the best-documented aspect of African economies, can then be linked more explicitly to the interacting subsectors of the domestic economy. In the paragraphs that follow, this expanded notion of sectors within the domestic economy is applied successively to the era from 1500 to 1700, the slave trade era from 1700 to 1900, and the colonial and neocolonial period of the twentieth century.

4.4.1 Rethinking Africa from 1500 to 1700

Such a framework should facilitate the creation of a new picture of Africa from 1500 to 1700, when African populations were presumably growing yet already dense. The elements of such a reconsideration proposed here include land-labor ratios, systems of money, the nature of ethnicity, the

¹² For an earlier discussion on the balance of the domestic economy and overseas trade in the Bight of Benin, see the works of Peukert and Manning: for the kingdom of Dahomey, Peukert assumed export value reached only 4 percent of GDP; for the larger Bight of Benin, Manning assumed export value reached 15 percent of GDP. Manning proposed a three-century series on export revenue and per capita export revenue, with rougher estimates of GDP (Manning 1982a, 2, 44; Peukert 1978).

functions of states, the role of poverty, and the contemporary notion of the “informal economy” as applied to precolonial times.

We need to rethink land-labor ratios for Africa. Should Africa before the twentieth century continue to be seen as a continent of land surplus and labor shortage? Or should it be viewed as a region of relatively dense population where land was better seen as a scarce resource than a free good? The interpretive choice, highlighted clearly by the new estimates, draws renewed attention to the old differences between Hopkins’s assumption of African labor shortage, the Gemery and Hogendorn assumption of African labor surplus, and Ester Boserup’s analysis of behavior change resulting from increased population density (Boserup 1965; Hopkins 1973; Gemery and Hogendorn 1974).¹³ Regional and global comparisons of the labor intensity of production and the social organization of labor will surely reveal a need to study African labor more fully.

Study of the forms and dynamics of African money can facilitate the required rethinking of exchange in African markets. It is noteworthy that gold served as currency in the large portions of West Africa where it was mined, and gold also served as currency in southeast Africa and along the Swahili coast. Silver presented a contrast: silver was the main international currency from the late sixteenth century, but silver was little used as currency in sub-Saharan Africa. Partly this was a response to the scarcity of silver in Africa, but it also suggests that Africa was outside the main currents of global trade until the mid-nineteenth century, when silver coins became widely used in many parts of Africa. (An exception to this pattern is Ethiopia and northeast Africa generally – silver was traded and coined in that region, reflecting its integration into Middle East and Indian Ocean trading circuits.) Overall, a denser African population means a further magnified density in marketing. It means that there is much more to be learned about African currencies, credit, and other means of exchange.

We need to rethink the handling of ethnicity in Africa. Too often, analysis has focused on ethnic groups as if they were autonomous and self-sufficient groupings. Among the approaches to ethnicity that provide promise for developing an interactive approach to a multi-sector domestic economy is the work of Frederik Barth and Frederic Pryor. Barth’s analysis of ethnic groups and boundaries, showing how families crossed ethnic boundaries at times when it was economically necessary, became useful in understanding

¹³ The Gemery-Hogendorn interpretation of slave exports in terms of the “vent for surplus” theory was one of the few arguments of its time that land rather than labor was in short supply in the era of slave trade.

the response to drought in the central Sudan, as families shifted from agriculture to pastoralism and back (Barth 1994). Pryor's global study of peasant distribution systems, drawing on ethnographic accounts from the Human Relations Area Files, analyzed four types of distribution systems in peasant economies and found correlations suggesting surprisingly complex processes of economic choice and evolution (Pryor 1977).¹⁴ As with ethnicity, so also with the spatial distribution of African population; attention to zones of high economic activity and high population density may reveal the African dynamics of interchange and division of labor that have been neglected in interpretations that have conceded too much to the notion of a poor, underpopulated, and backward African countryside.

The new estimates raise parallel questions about states and statecraft in Africa. While Africans had states throughout the continent, these states in general did not develop the bureaucracies, armies, and monuments of those in Eurasia. Indeed, the scarcity of such great states is one of the reasons scholars have tended to assume that African populations were sparse. Quite a different possibility is that African societies found ways to develop and nourish dense populations without giving such support to elite classes and state institutions.

Similarly, we should consider the issue of poverty in long-term perspective. It may be that significant insights will come from a rereading of John Iliffe's remarkably broad review, *The African Poor*. In this continental study of poverty in the nineteenth and twentieth centuries, Iliffe distinguished between the poor and the very poor, where the latter never escaped the fringes of hunger (Iliffe 1987). The question is how far into the past this analysis of poverty might be carried.

It is unlikely that new investigations will unearth previously unsuspected concentrations of great wealth and centralized power in Africa. We should look instead for an Africa of the past that can be linked to the Africa of the present – that is, societies with relatively dense populations, with considerable socioeconomic inequality, with an immense range of communities and activities, but in an environment of high mortality and widespread poverty. For instance, we should consider the benefits of extending to the more distant past the recently developed logic of the informal economy. A substantial literature has grown up centering on contemporary economic activity that takes place outside of the formal sector of wages, profits, and regulation – work and transactions that enable people to survive and sometimes prosper, but that escape formal economic accounting (MacGaffey

¹⁴ A parallel study relying on HRAF records was that of Patterson (1982).

1991; Portes, Castells, and Benton 1989). The phenomenon of the informal economy, while generally treated as a spinoff of the globalizing capitalist economy, may instead be the current version of what was earlier the domestic and regional market of Africa. That is, the lessons learned from studying the contemporary informal sector might be applied to earlier times, and might help explain how a large African population could have sustained a lively regional economy that nonetheless had little interaction with global commerce.

4.4.2 African Social Dynamics, 1700–1900

The multi-sectoral approach to Africa's domestic economy can then be applied to the era from 1700 to 1900. During these two centuries, population stagnated overall and fluctuated up and down in most regions according to fluctuations in slave trade and other factors, and external trade expanded in tandem with domestic enslavement. The new population estimates provide a new basis for analyzing the main historical questions of this era. For instance, did the conditions of African life worsen in the era of slave trade? Did general mortality rates rise in West and Central Africa from the seventeenth to the nineteenth century and in nineteenth-century East Africa? It is certainly the case that enslavement, drought, famine, and epidemic reinforced one another periodically to the point that it becomes difficult to distinguish the various causes of misery (Miller 1982). The savanna regions of West Africa and Angola were particularly vulnerable to such downturns, but social tumult and the creation of refugee populations brought periodic turmoil to many African regions. Investigators of the emergence of the HIV virus in humans continue to explore the question of whether it was the social disorder of late nineteenth-century enslavement that led to the transfer of viruses among species and the formation of the human-carried version of HIV.

It may be that the character of African statecraft changed significantly as enslavement grew in significance. That is, the earlier focus of localized states on the welfare of the monarch's constituents (as in Ife and the Kuba kingdom) came to be replaced by more warlike and hierarchical states (such as Dahomey, Imbangala, and Segu). Meanwhile, the expansion of enslavement put a premium on effective defense and on the maintenance of refugee communities, which again undermined respect for large states.

What was the size of slave populations in Africa? This analysis has argued that the enslaved populations of Africa grew sharply in the eighteenth century and then grew again even more sharply in the nineteenth century. It

seems certain that the worldwide peak in enslaved populations came in roughly 1850, and that those in Africa were the majority of those held in slavery. These are demographic projections, however, rather than descriptions of individual lives, so much more research will be necessary to verify the validity and the meaning of this assertion.

Another measure of the long-term effects of enslavement can be taken through comparison of the two-plus centuries of enslavement in West Africa with the one century of enslavement in East Africa. In eighteenth-century West Africa, transatlantic slave trade expanded steadily and trans-Saharan slave trade expanded to a lesser degree; eighteenth-century East Africa remained in a situation of relative autarky. In nineteenth-century West Africa, the Atlantic trade declined while the trans-Saharan slave trade expanded somewhat and enslavement within the region expanded as well. In nineteenth-century East Africa, Indian Ocean slave trade grew rapidly to a peak late in the century, then came almost to an end at the end of the century. In West Africa, the nineteenth-century decline in Atlantic slave trade coincided with a rapid growth in commodity exports; commodity exports from East Africa expanded considerably later. Overall, it appears that West Africa rebounded first from the negative demographic effects of slave trade, followed by Central Africa and then by East Africa. But the East African slave trade, though brutal in its impact, lasted for a shorter time than that for West and Central Africa, so the continuing social markers of the slave past seem clearer in West and Central Africa. In East Africa, Mozambique and Malawi are the regions that show the most after-effects of enslavement.

4.4.3 Twentieth-Century Africa

From 1900, enslavement had nearly stopped; those in slavery gradually achieved non-slave or ex-slave status. Export agriculture and expanding cities provided new opportunities for some, and refugee populations gradually came into the open. There were exceptions to this positive picture: for instance, the turmoil of the Congo basin and north Central Africa in the early colonial years, under King Leopold's Congo Free State and in the French Congo, each succeeding a period of several decades of intensive slave raiding. Whatever their growth rate, colonial African populations are now known to have been far larger than European rulers understood at the time. The inflection point was in the 1940s, when a world distracted by war left Africa in a near-autarkic situation. From that time, the population of Africa began expanding at an unprecedented and unrelenting rate until the present.

How long-lasting were the social effects of large-scale enslavement? Here is one suggestion that some effects may have been long-lasting indeed. Today, in the early twenty-first century, the African regions with the highest incidence of polygyny and the lowest level of female education are the same regions as those from which the export of male slaves was most consistent and longest lasting: West Africa and Central Africa (Tabutin and Schoumaker 2002). Can it be that centuries of slave exports and uneven adult gender balance created a self-reproducing system that continues to rely on the subordination of women?

To further test and document this line of argument, we need to expand research on long-term African population patterns, working especially in archaeology, linguistics, social and anthropological studies, and with written documents. For these demographic questions and for the accompanying social questions, it will take a while to clarify and document the implications of this new understanding of African population history.

4.5 AFRICA IN GLOBAL CONTEXT

The demographic analysis developed here contests sharply the notion – which has grown especially in the past forty years – that African population has consistently grown at a rate more rapid than the average of human population growth. Such a “rapid African growth” thesis has led to projections of a small African population base in medieval times and steady growth until the mid-twentieth century. This analysis also contests the colonial-era estimates of African population, because they were generally too low to be consistent with the earliest dependable African population figures during the 1950s and 1960s.

It is definitely the case that African population since 1950 has grown at rates higher than the average for humanity, but that pattern cannot reasonably be projected into earlier times, and for three main reasons. First, there is no reason to assume that African growth rates were among the highest in the world before, during, or after the era of the slave trade. Second, the effects of enslavement seriously reduced the ability of African populations to grow. Third, general African mortality was relatively high, so that pre-colonial and colonial African growth rates may well have been lower than for other regions. The old ideas about Africa's demographic past simply cannot stand up to a comprehensive and comparative analysis of African population in global context.

The African continent, viewed from the outside, appeared to have participated only to a modest degree in the global interactions and transformations

of the era from 1500 to 1700, though the continent may have undergone major changes that are not yet fully understood – impact of disease is one possibility. Then, from 1650 to 1850, the continent was seriously drained in population through enslavement.¹⁵ African migration continued after 1850 – as enslavement sent many captives to destinations within Africa and across the Sahara and into the Indian Ocean – though expanding migration from Europe and Asia overshadowed African migration after 1850. The adoption of American crops by African farmers is known to have taken place from 1500, but we do not yet have precise information on the pace of adoption or on the nutritional or demographic results of that agricultural change, and cannot simply assume that it overcame all other factors to generate steady population growth. From 1850 to 1950, Africa fell increasingly under European colonial rule, with its mix of repression, taxation, and economic transformation. Throughout these successive periods, African populations, though relatively dense, met consistent limits that prevented any long-term growth.

With independence after 1950, African nations experienced bursts of development in health, education, and economic growth, but fell into a pattern of neocolonial subordination to international organizations, as with the World Bank's structural adjustment programs. During this period, however, African populations escaped their previous limits and grew steadily at rates more than 2.5 percent per year, a growth rate high enough to create its own problems.

While Africans overcame the limits on their demographic growth, the limits on African economic growth remained in place. From 1850 if not before, African prices and wages in international markets have been held at extremely low levels. Investment in the continent has been overwhelmingly out of domestic funds – yet the African funds available for investment were restricted by the low incomes that Africans gained in international transactions. Nevertheless, African economies have undergone transformations and even growth over the past century, a pattern that tends to argue that the domestic economy continues to have a viable mechanism of accumulation (Manning 1982a, 218–19). The population of the African continent is now – and presumably once again – near to one sixth of the total of humanity, and the distinctive long-term history of its demographic, economic, and social life may have important lessons for the continent itself and for regions beyond it.

¹⁵ The guesses of Willcox and Carr-Saunders – that Africa remained in demographic stasis during the era of slave trade – are confirmed in general by this new research.

In sum, this assembly of evidence and analysis suggests that we should develop a modified perspective on the overall characteristics of African population from the sixteenth century through the colonial era. That is, we should envision African populations that were relatively dense, in comparison with others of their time. Their application of diversified technologies permitted relatively intensive exploitation of varying environments. They developed elites at local but not at imperial scales. Nonetheless, the disease environment kept mortality at a high level. The expansion of slave trade and a concomitant expansion in domestic slavery, in region after region of the continent, transformed and further marginalized this socioeconomic system but did not destroy it. It may be that the same pattern has been propagated into the present, though it cannot yet be said by what mechanisms the system was reproduced over time. As this pre-1950 demographic pattern clarifies, Africa should be compared more systematically with tropical South Asia and Southeast Asia, in both demographic and social terms. And Africa before 1950 should be compared systematically with Africa since 1950.

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PART II

CULTURE, ENTREPRENEURSHIP,
AND DEVELOPMENT