Introduction

I

Between the fifteenth and the twentieth centuries, the center of gravity of global economic activity shifted from the Old World toward the New, and, within the Americas, from the tropical and sub-tropical to temperate areas. During most of this long durée – from the sixteenth to the nineteenth centuries – there evolved an intensive form of slavery supported by the largest mass migration of coerced labor in recorded history. At the center of both the growth process and the extensive coercion lay a relatively limited number of plantation regions that focused on the production and export of what was from the consumers' point of view a few luxury items: sugar, the various hard liquors that sugar made possible, coffee, and tobacco.[1]

The plantation complex was characterized by expansiveness, flexibility, and innovation; and because plantations relied on both sub-tropical climates and slave labor, the growth nodes of the New World remained largely outside the temperate zones, at least until 1850. Moreover, before 1800, the countries in the temperate areas that came closest to matching the economic performance of the sub-tropical slave economies were the ones that traded intensively with them. These included the colonial powers of the Old World that controlled the extensive plantation areas of the Americas. By contrast, after 1800 – following abolition of the transatlantic traffic in slaves and the

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[1] Sidney W. Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York, 1985) argues that sugar provided a low-cost source of energy for workers before and during the industrial revolution that had the effect of increasing labor productivity. Any reasonable estimate of the share of sugar in the total diet and the incremental addition to physical activity that sugar made possible suggests that such an impact must have been trivial.

system of chattel slavery that it supported – rates of economic growth in the tropical areas lagged behind rates in the temperate zones.

In the late eighteenth century, Arthur Young remarked that coercive labor systems of varying intensity constituted the global norm everywhere outside the temperate North Atlantic region.[2] But there was no North–South economic development split of the kind that dominates modern discussions of global inequality. The mix of themes in the development of the Americas – wealth and poverty, coercion and freedom, shifts in the locus of economic power – have fascinated observers since Columbian contact. The research of the last forty years, in particular, much of it touched on and encapsulated in the papers in the present volume, has at once sharpened the paradoxes and offered new insights into understanding them.

The relative wealth of Central America and the Northern temperate zones, over the centuries since Columbian contact, was examined recently in several papers co-authored, appropriately enough, by Stanley Engerman who is the occasion of this volume. Engerman, Stephen Haber, and Kenneth Sokoloff drew attention to the fact that most European settlements in the New World began with the kinds of advantages that economic historians have traditionally seen as central to success.[3] New World migrants had access to "vast supplies of land and natural resources per person." Yet there was no doubt that, initially, the mainland possessions of the Old World latecomers – the English, the French and the Dutch – were of secondary, if not marginal economic interest. Indeed, before the arrival of Europeans these temperate regions supported a native population of much lower density than in the sub-tropical areas of the Americas.

The contrast in the economic performance of the tropical and temperate regions of the New World since 1700 is encapsulated by Sokoloff and Engerman's data shown in Table 1. Data for the pre-1700 period are necessarily sparse, but it is perhaps not unreasonable to assume that incomes in the early Spanish Americas were higher than elsewhere, that this Spanish American advantage eroded thereafter, and that the major shifts toward greater inequality, this time in favor of the British North American mainland and Canada, came after 1700 rather than before. As Engerman et al. explain,

2 See the discussion in Seymour Drescher, *The Mighty Experiment: Free Labor Versus Slavery in British Emancipation* (New York, 2002), pp. 14, 16, 18–19.

3 Stanley L. Engerman and Kenneth L. Sokoloff, "Factor Endowments, Institutions, and Differential Paths of Growth among New World Economies: A View from Economic Historians of the United States," in Stephen Haber (ed.), *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800–1914* (Stanford, 1997), pp. 260–304. A revised version, with additions of political and educational material, is Stanley L. Engerman, Stephen H. Haber, and Kenneth L. Sokoloff, "Inequality, Institutions and Differential Paths of Growth Among New World Economies," in Claude Menard (ed.), *Institutions, Contracts and Organizations: Perspectives from New Institutional Economics* (Cheltenham, 2000), pp. 108–34.

TABLE 1. *Gross Domestic Product per Capita in Selected New World Economies, 1700–1997*

	GDP per Capita Relative to the USA			
	1700	1800	1900	1997
Argentina	–	102	52	35
Barbados	150	–	–	51
Brazil	–	50	10	22
Chile	–	46	38	42
Cuba	167	112	–	–
Mexico	89	50	35	28
Peru	–	41	20	15
Canada	–	–	67	76
United States	100	100	100	100
United States (in 1985 $)	550	807	3,859	20,230

Source: Kenneth L. Sokoloff and Stanley L. Engerman, "Institutions, Factor Endowments, and Paths of Development in the New World," *Journal of Economic Perspectives*, 14 (2000): 219.

while direct information on per capita incomes is lacking, patterns of migration, wages, anthropometric measures, and wealth-holdings all support the existence of this broad trend. In accounting for this pattern, many historians have emphasised differences in the institutions that settlers brought with them from the Old World. For example, the institutions that underpinned British colonial societies in mainland North America have been regarded as more conducive to economic growth than those brought from the Iberian countries.

By contrast, Engerman et al. focus on differences in factor endowments. They agree that political and economic institutions played a role, but argue that initial resource endowments in the various colonies of the New World were crucial in shaping the sorts of institutions that evolved and in accounting for relative economic performance over the long run. Thus, much of Latin America developed markedly unequal income distributions and social structures that gave elites a disproportionate share of power, as the environment favored latifundia and plantation agriculture. Inequality in turn inhibited economic growth. This emphasis on factor endowments, however, makes little distinction between the haciendas of Central America, on the one hand, which exported little across the ocean, and the plantation complexes, on the other, which for three centuries provided the cornerstone of trade in the Atlantic world. This approach is also broadly consistent with the view that from a twenty-first century perspective slavery had a malign impact on the long-run ability of societies to sustain productivity improvements and increase material welfare for all their inhabitants.

More has been written on the shape of New World societies as it was affected by the institutions the migrants brought with them and the environment in which they found themselves than about any other single theme in the history of the settling of the Americas by the peoples of Europe and Africa. It would be presumptuous of us to claim for this volume anything other than a more nuanced balance between the roles of imported institutions on the one hand and pre-existing endowments on the other; but before attempting a re-assessment, it is worth noting that in fact the central question regarding institutions and resource endowments may be even sharper than our opening summary suggests. It was not only that the Spanish pulled into their empire the richest and most powerful part of the Americas in the years after 1492, they had themselves just formed the most powerful nation in Europe and were able to draw on the most advanced capital markets and technology that the late fifteenth century sub-continent had to offer. It is hard to imagine the early Portuguese and Spanish transoceanic explorations and imperial ventures without a northern Italian financing and knowledge base. In effect, Columbian contact brought together what were probably the centers of economic gravity of both Europe and the Americas. In the three centuries after Columbian contact, it is even more remarkable that it was not just in the Americas that the economic center of gravity shifted to the temperate areas farther north. The same process occurred in Europe also as Spain, Portugal, and the northern Italian cities fell behind the northwest Europeans. South of the equator a parallel if less pronounced shift occurred as Brazilian coffee and later still, cattle-based activities gained at the expense of the older sugar sectors of northeast Brazil.

What was even more striking in light of the significance of slavery and the plantation complex in the seventeenth and eighteenth centuries was the fact that slavery was an integral part of the social fabric of both conquering societies – the Iberian nations – as well as those of their major victims in the Americas – the Aztecs, Incas, and the Tupinamba peoples of what became Brazil. By contrast, slavery was much less prevalent among both the native populations in most of the temperate zones of the Americas and the smaller Caribbean islands, and among the northern European nations that began to impinge on their lands many decades after the early Spanish and Portuguese initiatives in the New World. In the Americas, the incidence of slavery was greatest among those peoples who had moved farther away from hunter–gatherer, or at least a semi-settled status that was most common in the temperate regions. Slavery was probably most prevalent among the Aztecs, though in the settled, relatively densely populated and temperate northwest, the Haida, Tlingit, and Nuu-chah-nulth societies had more than 15 percent of the population in slavery.[4]

[4] Leland Donald, *Aboriginal Slavery on the Northwest Coast of North America* (Berkeley, 1997), pp. 17, 182–94; Orlando Patterson, *Slavery and Social Death: A Comparative Study* (Cambridge, MA, 1982), pp. 42, 52, 106–7, 123.

The Spanish could draw on the largest resources of any European power in the late fifteenth century thanks in part to their long struggle with Islam and the resulting greater familiarity with slavery compared to other western European nations. They were the first to arrive in the Caribbean, and the first to take advantage of the great riches they found. Among the earliest "commodities" that Columbus brought back to Spain was one hundred Indian slaves. How extraordinary at first glance then, that the Caribbean remained an economic backwater for a century and a half after contact, and that when it did develop it was in the face of Spanish opposition. Hispaniola exported no sugar to Europe until the late seventeenth century (and by then the exporting area was French); and Puerto Rico and Cuba exported none until the second half of the eighteenth century. Instead, the Spanish quickly came to treat the Caribbean islands as defensive bulwarks to their main imperial activities as they moved west to the most economically advanced and most densely populated part of the Americas. There they assumed control of pre-existing state superstructures. Indeed, the incidence of slavery was likely unaffected by the Spanish takeover. Why?

Part of the answer is transportation costs and, after that, factor endowments. For almost two centuries after 1492, the cost of moving goods from Central America and the Western Caribbean to Europe was so great that only the highest value products – gold and silver – could warrant the freight.[5] First looting and then mining precious metals characterized Spanish activities. The first produce sold in Europe from Central America that paid its own freight was probably exotic woods from what became Honduras.[6] These activities required labor, usually Native American and coerced; but the Spanish, like all Europeans, were certainly prepared to change the nature of coerced labor as it was practiced in the late fifteenth century, either in the Americas or Europe. Slavery may have been extensive in the pre-contact Central Americas, but the domestic and ceremonial uses of slaves by Aztecs and Mayas contrasts sharply with the intensive use of slaves as a source of labor which came after contact.[7] Yet, even though the Indian labor, which was

[5] By the late seventeenth century gold could be carried across the Atlantic twice – once from its source in Africa to the Americas and again from the Americas to consumers in Europe – for a shipping charge that amounted to less than one percent of its value in Africa. See David Eltis, "The Relative Importance of Slaves in the Atlantic Trade of Seventeenth Century Africa," *Journal of African History*, 35 (1994): 240.

[6] There were many other products carried to Europe from the Spanish Americas, but in all cases they were freighted in vessels whose main purpose was to carry high-value and low-volume metals. Freight rates for such items were inevitably low and few if any could have made the transatlantic crossing without "piggy-backing" on gold and silver.

[7] Robert D. Shadow and Maria J. Rodriguez–Shadow, "Historical Panorama of Anthropological Perspectives on Aztec Slavery," in Barbro Dahlgren de Jordán and Maria de los Dolores Soto de Arechevaleta (eds.), *Archaeologia del Norte y del Occidente de Mexico: Homenage al Doctor J. Charles Kelley* (Mexico City, 1995), pp. 299–323.

the mainstay of the silver mines, was coerced, it was not for the most part enslaved. Moreover, the fact is that the number of laborers – free and mita – employed in the production of silver in New Spain and Peru even at peak export periods was very small compared to the number of slaves that were to be found later on sugar plantations.

The work force in the mines of New Spain in the late sixteenth and early seventeenth centuries was below 10,000, and its counterpart in Potosi was perhaps double this in 1603, though a larger mita draft sustained this number.[8] The combined workforce of say 30,000 can be compared to the hundreds of thousands of slaves in the plantation complexes of the Americas a century after their establishment. Thus gold and silver deposits and a relatively abundant native population shaped the activities of the Spanish as they would have shaped the activities of any European group faced with the same options. It is hard to conceive of the English Elizabethan maritime adventurers behaving much differently from the conquistadors. The privateering activities of Providence Island, "the other Puritan colony," and later, early Jamaica, suggest that given the same opportunity, Francis Drake may have behaved no differently to Hernando Cortes (and a New England in Central America may have been no different from the historical New Spain).[9]

There is nevertheless a strong sense that Spain missed opportunities exploited by the English and French. Spaniards laid claim to all the Americas west of the line established by the treaty of Tordesillas, and they had the option of developing Barbados, which had no indigenous population, as well as what became St. Domingue. They already had an establishment in Trinidad and indeed there is a record of a slave ship with several hundred slaves on board disembarking its human cargo there in 1606.[10] The Spaniards were a major presence on all the Greater Antilles. They were even producing sugar in Cuba as early as the mid sixteenth century and, later in the century, had extensive sugar estates in New Spain, some staffed with African slaves.[11] Silver was perhaps the preferred option of all those coming to the New World, and as firstcomers, the Spanish found it easier to exercise that option. Yet

8 Peter J. H. Bakewell, *Miners of the Red Mountain: Indian Labor in Potosí, 1545–1650* (Albuquerque, 1984), p. 182; Jeffrey A. Cole, *The Potosí Mita, 1573–1700: Compulsory Indian Labor in the Andes* (Stanford, 1985), pp. 15–17, 29. The mita labor was divided into three shifts each of which in the original formulation of Viceroy Francisco de Toledo, worked one week in three.

9 Karen Ordahl Kupperman, *Providence Island, 1630–1641: The Other Puritan Colony* (Cambridge, 1993).

10 Vincent T. Harlow (ed.), *Colonising Expeditions to the West Indies and Guiana, 1623–1667* (London, 1925), p. 125.

11 Ward J. Barrett and Stuart Schwartz, "Comparación entre dos Economías Azucareras Coloniales: Morelos, México y Bahía, Brasil," in Enrico Florescano (ed.), *Haciendas, Latifundios y Plantaciones en América Latina*, (Mexico City, 1975); Ward Barrett, *The Sugar Hacienda of the Marqueses del Valle* (Minneapolis, 1970).

there was nothing obvious preventing the Spanish emulating the late seventeenth century Portuguese and encouraging the production of both precious metals and sugar in their possessions.[12] Instead the Spanish produced sugar in the Americas solely for local consumption. In the sphere of migration, over 200,000 Spanish arrived in the New World in the century and a half after Columbus, yet three times as many left the British Isles in a similar number of years after the mid seventeenth century, most of them heading to the plantation regions and under indenture – an institution particularly well adapted to long-distance migration and peculiar to French, German, and English migration.

Did the Portuguese seize the opportunity that the Spanish missed? The template for a New World sugar industry was well established in the Mediterranean for centuries prior to contact. The sugar complex (coerced labor, monoculture for long-distance export markets, and large capital inputs) moved out of the Mediterranean in the fifteenth century and over the course of two or three generations established itself first in Madeira and then São Tomé in the Bight of Biafra. In the middle of the sixteenth century the Portuguese island of São Tomé supplied most of the sugar consumed in Europe. As late as the 1640s Dutch vessels were bringing large quantities of São Tomé sugar into Amsterdam in apparently successful competition with sugar grown in Dutch Brazil. Sugar production for export to Europe was first established in northeast Brazil probably in the 1530s.

Transportation costs and factor endowments go some distance in explaining the trading patterns. For example, the location of northeast Brazil combined with the prevailing wind and ocean current systems of the North and South Atlantic meant that this region was the part of the Americas closest to African sources of labor and European markets for sugar. The voyages from Portuguese Bissau and Cacheu, in Portuguese Guinea, to Pernambuco, and from Pernambuco to Lisbon, were among the shortest of all transatlantic routes. However, others from Angola to southeast Brazil and Bahia, and later from the Bight of Benin to Bahia were far shorter than any routes from Africa to the Caribbean and North America. In addition, most of the Brazilian Atlantic coastline was on the preferred route from the East Indies to Europe. Two implications follow. First, as already noted, Brazil, not Spanish America, was the first locus of an American plantation complex. Second, slaves in Brazil would be cheaper than elsewhere in the Americas and, as Herbert Klein and Francisco Vidal Luna (Chapter 4) demonstrate, even in the nineteenth century they were to be found in a wider range of occupations than in other slave societies.

[12] An argument might also be made that the Spanish turned to sugar only after their silver-producing possessions won independence. Yet the major reforms to land tenure and opening slave supplies actually pre-date Latin American independence by more than 30 years.

Yet Portuguese, or more precisely, Brazilian dominance in sugar did not endure, although its economy did reemerge under different circumstances and with a different product – coffee – in the nineteenth century. Between 1650 and 1790 three additional sugar complexes appeared – the English, the French, and the Dutch – as well as two other plantation economies based on secondary crops. The Portuguese, who were supplying almost all Europe's sugar before the Dutch assault on Brazil in the mid seventeenth century, accounted for about 10 percent in 1770,[13] despite having had access for 250 years to the lowest cost African slaves and the most land suitable for sugar. Indeed, Brazilian sugar exports did not again claim an increasing share of world markets until first, the ex-slaves of St. Domingue removed the colony from competition for those markets, and second, the British abolished the slave trade to their colonies and then slavery itself, thus hobbling their own ability to compete.

The appearance of other plantation complexes also followed, in part, the logic of transportation costs and factor endowments. The first complex outside Brazil was in Barbados, the closest Caribbean island to Africa and Europe. Dominated initially by tobacco grown using white labor, the island switched to sugar between the early 1640s and 1660, and gradually began relying on black slaves. As early as 1655, Barbados planters were claiming to "ship out yearly as many Tunns of goods as ye King of Spain doth out of all his Indian Empires." The British plantation sector later expanded to the Leeward Islands (Nevis, Antigua, Montserrat, and St. Kitts), slightly further west, and then to Jamaica in the western Caribbean. By the early eighteenth century, before Jamaica had become the leading British producer of sugar, British Caribbean exports had surpassed those of Brazil as a whole.[14]

Under French control, the second plantation complex developed more gradually and followed the same westward shift, with Martinique playing the role of Barbados in the eastern Caribbean and St. Domingue, the role of Jamaica further west. Sugar dominated here also, although by the late eighteenth century, the plantations were producing more coffee, indigo, and cotton than any other polity in the Americas. If initial growth was slower, the end result was far more spectacular. The French islands out-paced both Brazil and the British Caribbean by the mid eighteenth century, and, at the outbreak of the rebellion in 1791, were likely producing more than the rest of the plantation Americas combined.

Three other smaller plantation economies emerged in this period. Lorena Walsh (Chapter 3) describes a vibrant export-oriented tobacco culture developing on the Chesapeake; and James Irwin (Chapter 9) documents the rise

[13] Seymour Drescher estimates the Brazilian share of Atlantic sugar markets c. 1800 at 10.8 percent (*Econocide: British Slavery in the Era of Abolition* [Pittsburgh, 1977], p. 48).

[14] Thomas Povey, "Book of Entrie of Forreigne Letters," British Library, Add. Mss., 11,411, f. 9; David Eltis, *The Rise of African Slavery in the Americas* (Cambridge, 2000), pp. 198–99.

in wealth in the region, which was based, as well, on an equally vibrant but less export-oriented mixed-crop economy. Far removed, initially, from the regions where transporting slaves from Africa was profitable,[15] the Chesapeake grew tobacco, relying at first on white indentured labor. But once supplies of these workers tightened and capital markets improved, transatlantic slave traders were able to extend their range north and west of the eastern Caribbean. In 1770, despite several decades of an active slave trade and natural slave population growth, the Chesapeake had only half the slave population of the British Caribbean, and produced less than one-quarter the value of exports of the island colonies. Another plantation economy, this under Dutch control, originated in Suriname, which was taken from the English in 1664. The complex spread westward, encompassing other parts of the South American mainland – Demerara, Berbice, Essequibo – and including a small eastern Caribbean foothold on St. Eustatius. As Pieter Emmer (Chapter 2) points out, Dutch preoccupation with much larger interests in the East and aggressive British and French pre-emptive moves in the Caribbean inhibited the Dutch plantation empire and the complex remained centered on the South American mainland producing at its peak, in the late eighteenth century, about one-quarter the output of the British slave system. In the eighteenth century a third complex appeared in the low country regions of South Carolina and, later, Georgia. Based on rice and, to a lesser degree, indigo – the latter thriving in a protected British market – this area was perhaps the most prosperous of the minor plantation complexes on the eve of U.S. independence.[16]

The relative importance and broad structure of the later plantation complexes are suggested by Table 2. The thirteen British continental colonies were exporting slightly more than their British Caribbean counterparts in 1770, but they were doing so with a population that was more than four times greater. If we take into account only the white population, per capita exports from the British Caribbean were thirty-seven times greater than those from the British mainland. Moreover, nearly 30 percent of the exports of the thirteen colonies went to the Caribbean, a much larger share than the sugar islands shipped to the mainland.[17] The Caribbean sugar islands could have found alternative sources for the provisions they obtained from the Northern Colonies far more easily than the Northern Colonies could have located a

[15] It is significant that the first African slaves to arrive in the Chesapeake were pirated from a Portuguese vessel heading for Spanish America and probably intended for work in the silver mines. See Engel Sluiter, "New Light on the '20 and Odd Negroes' Arriving in Virginia, August, 1619," *William and Mary Quarterly*, 54 (1997): 396–98.

[16] Russell R. Menard, "Slavery, Economic Growth, and Revolutionary Ideology in the South Carolina Low Country," in Ronald Hoffman et al. (eds.), *The Economy of Early America: The Revolutionary Period, 1763–1790* (Charlottesville, 1988), pp. 244–74.

[17] Calculated from James F. Shepherd and Gary M. Walton, *Shipping, Maritime Trade, and the Economic Development of Colonial North America* (Cambridge, 1972), pp. 94–5.

TABLE 2. *Exports and Populations of Export-Producing Areas of Selected Areas of North and South America in 1770*

	Total Exports (million £ sterling)	Total Population (thousands)	White Population (thousands)	Per Capita Exports (millions £ sterling)	White per Capita Exports
Danish Caribbean	0.215	29	3	7.4	71.7
Dutch Americas*	0.573	100	5	5.7	114.6
British Caribbean	2.669	479	45	5.6	59.3
French Caribbean	3.819	458	46	8.3	83.0
All the plantation Caribbean**	7.276	1,066	98	6.8	74.2
New England	0.496	581	566	0.9	0.9
Middle colonies	0.609	556	521	1.1	1.2
Upper South	1.169	650	398	1.8	2.9
Lower South	0.534	345	189	1.5	2.8
All thirteen colonies	2.808	2,132	1,719	1.3	1.6

Note: *Excludes Curaçao, Saba. **Excludes the Spanish Caribbean.

Sources: Population data from John J. McCusker and Russell R. Menard, *The Economy of British America, 1607–1789* (Chapel Hill, 1985), pp. 103, 136, 153, 172, 203, 600, 712, except for St. Eustatius which is from Stanley Engerman and B. W. Higman, "The Demographic Structure of the Caribbean Slave Societies in the Eighteenth and Nineteenth Centuries," in Franklin W. Knight (ed.), *The UNESCO General History of the Caribbean*, 5 vols., 3 (Kingston, 1997): 49. Export estimates from David Eltis, "The Slave Economies of the Caribbean: Structure, Performance, Evolution and Significance." in ibid., 113–14, and James F. Shepherd and Gary M. Walton, *Shipping, Maritime Trade, and the Economic Development of Colonial North America* (Cambridge, 1972), pp. 95–6.

substitute market. Indeed, it is easier to imagine the dramatic growth of trade in the Atlantic region without the northern colonies, than without plantation America. A comparison with the plantation Caribbean as a whole reveals even more dramatic contrasts. In 1770 the Caribbean exported, in value, two and one-half times more than the North American mainland, with a population that was only half that of the thirteen colonies; and per capita exports for whites were £74, as opposed to £1.6 on the mainland.

These comparisons highlight the sharp difference between the Caribbean and mainland economies. The Caribbean was an export-based economy that used slave labor, where whites were in supervisory or entrepreneurial roles. By contrast, the continental colonies can be better characterized as a white farm economy with a significant, although subsidiary, plantation component producing for the export market.[18] Moreover, even in the Chesapeake,

[18] The mainland economies produced many crops other than plantation produce and had a smaller proportion of adult males in their workforce. If we were to include only the Upper