

THE GREAT DIVERGENCE

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INTRODUCTION

COMPARISONS, CONNECTIONS, AND NARRATIVES OF EUROPEAN ECONOMIC DEVELOPMENT

MUCH OF modern social science originated in efforts by late nineteenth- and twentieth-century Europeans to understand what made the economic development path of western Europe¹ unique; yet those efforts have yielded no consensus. Most of the literature has focused on Europe, seeking to explain its early development of large-scale mechanized industry. *Comparisons* with other parts of the world have been used to show that “Europe”—or in some formulations, western Europe, Protestant Europe, or even just England—had within its borders some unique homegrown ingredient of industrial success or was uniquely free of some impediment.

Other explanations have highlighted relations between Europe and other parts of the world—particularly various forms of colonial extraction—but they have found less favor with the majority of Western scholars.² It has not helped matters that these arguments have emphasized what Marx called the “primitive accumulation” of capital through the forcible dispossession of Amerindians and enslaved Africans (and many members of Europe’s own lower classes). While that phrase accurately highlights the brutality of these processes, it also implies that this accumulation was “primitive” in the sense of being the *beginning* step in large-scale capital accumulation. This position has become untenable as scholarship has shown the slow but definite growth of an investible surplus above subsistence through the retained earnings of Europe’s own farms, workshops, and countinghouses.

This book will also emphasize the exploitation of non-Europeans—and access to overseas resources more generally—but not as the sole motor of European development. Instead it acknowledges the vital role of internally driven European growth but emphasizes how similar those processes were to

¹ It should be noted here that “western Europe,” for most authors, is a social, economic, and political construct, not an actual geographic entity: Ireland, southern Italy, and most of Iberia, for instance, did not have much of the economic development usually held to be characteristically European or western European. I will generally use the term in a geographical sense, while pointing out that the areas often taken to stand for “Europe” in these comparisons (e.g., the southern Netherlands, or northern England), might be better compared, in both size and economic characteristics, with such units as China’s Jiangsu province, rather than with entire subcontinents such as China or India.

² Note, for instance, the generally negative current mainstream verdicts on the arguments of Eric Williams (1944), Andre Gunder Frank (1969), Samir Amin (1974), etc. A good general critique of the overseas extraction thesis is DeVries 1976: 139–46, 213–14.

processes at work elsewhere, especially in east Asia, until almost 1800. Some differences that mattered did exist, but I will argue that they could only create the great transformation of the nineteenth century in a context also shaped by Europe's privileged access to overseas resources. For instance, western Europe may well have had more effective institutions for mobilizing large sums of capital willing to wait a relatively long time for returns—but until the nineteenth century, the corporate form found few uses other than for armed long-distance trade and colonization, and long-term syndicated debt was primarily used within Europe to finance wars. More important, western Europe had by the eighteenth century moved ahead of the rest of the world in the use of various labor-saving technologies. However, because it continued to lag behind in various land-saving technologies, rapid population growth and resource demands might, in the absence of overseas resources, have forced it back onto a path of much more labor-intensive growth. In that case it would have diverged far less from China and Japan. The book thus calls upon the fruits of overseas coercion to help explain the *difference* between European development and what we see in certain other parts of Eurasia (primarily China and Japan)—not the whole of that development or the differences between Europe and *all* other parts of the Old World. A few other factors that do not fit firmly into either category, such as the location of coal supplies, also play a role. Thus the book combines comparative analysis, some purely local contingency, and an integrative or global approach.

Moreover, the comparative and integrative approaches modify each other. If the same factors that differentiate western Europe from, say, India or eastern Europe (e.g., certain kinds of labor markets) are shared with China, then comparisons cannot simply be the search for a European difference; nor can patterns shared at both ends of Eurasia be explained as unique products of European culture or history. (Nor, of course, can they be explained as outgrowths of universal tendencies, since they distinguish some societies from others.) The resemblances between western Europe and other areas that force us to turn from a purely comparative approach—one that assumes essentially separate worlds as units of comparison—to one that also looks at global conjunctures³ have another significance as well. They imply that we cannot understand pre-1800 global conjunctures in terms of a Europe-centered world system; we have, instead, a polycentric world with no dominant center. Global conjunctures often worked to western Europe's advantage, but not necessarily because Europeans created or imposed them. For instance, the remonetization of China with silver from the fifteenth century on—a process that predated the European arrival in the Americas and the export of its silver—played a crucial part in making Spain's far-flung New World empire financially sustainable; and hor-

³ For a discussion of comparisons between entities that are assumed to be systemically inter-related rather than truly separate (which he calls the "encompassing comparison"), see Tilly 1984.

rific, unanticipated epidemics were crucial to creating that empire in the first place. Only after nineteenth-century industrialization was well advanced does it make sense to see a single, hegemonic European “core.”

Most of the existing literature, however, has remained set in an either/or framework—with either a Europe-centered world system carrying out essential primitive accumulation overseas⁴ or endogenous European growth called upon to explain almost everything. Given those choices, most scholars have leaned toward the latter. Indeed, recent scholarship in European economic history has generally reinforced this exclusively internal focus in at least three ways.

First, recent research has found well-developed markets and other “capitalist” institutions further and further back in time, even during the “feudal” period often thought to be the antithesis of capitalism.⁵ (A similar sort of revision has occurred in analyses of medieval science and technology, where what was once disparaged as the “Dark Ages” has now come to be seen as quite creative.) This has tended to reinforce the notion that western Europe was launched on a uniquely promising path well before it began overseas expansion. In some recent treatments, industrialization itself disappears as a turning point, subsumed into centuries of undifferentiated “growth.”

To put matters slightly differently, older literatures—from the late nineteenth-century classics of social theory to the modernization theory of the 1950s and 1960s—stressed a fundamental opposition between the modern West and its past, and between the modern West and the non-West. As more recent literature has tended to narrow the first gap, it suggests that the second gap—European exceptionalism—goes back even further than we thought. But it is a central contention of this book that one can just as easily find grounds to narrow the gap between the eighteenth-century West and at least some other parts of Eurasia.

Second, the more market dynamics appear even amid supposedly hostile medieval culture and institutions, the more tempting it has been to make market-driven growth the *entire* story of European development, ignoring the messy details and mixed effects of numerous government policies and local customs.⁶ And if legislative fiat at home added only small detours or

⁴ E.g., Blaut 1993: 186–206.

⁵ For a good recent example, see Britnell 1993.

⁶ For a good example of the tendency to minimize the importance of both legislative changes and popular custom, see the large literature reinterpreting the decline of English open fields. These fields were once thought to represent a collective ethic hostile to nascent capitalism and to have been destroyed by legislation as more individualist, less paternalist ideas became dominant in Parliament. It is now common to argue that open fields in fact represented a rational strategy for individuals in a world of fluctuating harvests and no insurance and disappeared largely because gradually declining interest rates made another form of harvest insurance—namely grain storage—cheaper and more effective than keeping one’s land in many scattered plots likely to have slightly different soils and micro-climates (e.g., McCloskey 1975a, 1975b, 1989). A further

occasional slight shortcuts to European development paths, why should coercion overseas—in places far from the main action of the story—be worth much attention? Meanwhile, an increasingly exclusive focus on private initiatives has not only provided an enviably clear story line, but a story line compatible with currently predominant neoliberal ideas.

Third, since this ongoing process of commercialization touched much of preindustrial western Europe, much recent literature treats whatever is left of the Industrial Revolution as a *European* phenomenon, rather than, as used to be common, as a British phenomenon spreading later to the rest of Europe.⁷ Such a move is challenged, not only by a mass of older scholarship, but also by more recent work suggesting that England had already diverged from the continent in crucial respects centuries before the Industrial Revolution.⁸ But the shift from a British to a European focus has been facilitated by the aforementioned tendencies to deemphasize politics and to minimize the conflict between “traditional” practices and rationally self-interested individuals, making it easier to minimize variation within western Europe.

Positing a “European miracle” rather than a British one has important consequences. For one thing, it again makes extra-European connections seem less important. Most of western Europe was far less involved in extracontinental trade than Britain was: so if it was “Europe” rather than “Britain” whose commercial growth led smoothly to industrial growth, then domestic markets, resources, and so forth must have been adequate for that transition. Moreover, if growth was largely achieved through the gradual perfection of competitive markets, then it seems implausible that colonies beset by mercantilist restrictions and unfree labor, to name just two problems, could possibly have been dynamic enough to significantly effect their mother countries. Thus Patrick O’Brien, a leading exponent of a “European” view, concedes that *British* industrialization, in which cotton played such a crucial role, is hard to envision without colonies and slavery, but then continues:⁹

Only a simplistic growth model with cotton as a leading sector and with British innovation as the engine of Western European growth could support an argument that the Lancashire cotton industry was vital for the industrialization of the core. That process proceeded on too broad a front to be checked by the defeat of an advanced column whose supply lines stretched across the oceans to Asia and the Americas.

consequence of this view, discussed (and disputed) on pp. 76–80 below, is the claim that the absence of any comparably successful government assault on traditional open fields in France was not as important an impediment to French development as earlier historians had generally held.

⁷ For two classic, though very different, statements of the British-centered view, see Landes (1969) and Hobsbawm (1975). One of the most explicit and trenchant critiques of this view is O’Brien and Keydar 1978.

⁸ See, e.g., Snookes 1994a, Wrigley 1990: 101–2.

⁹ O’Brien 1982: 12.

He then concludes that “for the economic growth of the core, the periphery was peripheral.”¹⁰

Such arguments make Europe’s overseas expansion a minor matter in a story dominated by emerging economic superiority. Empire might be explained *by* that superiority or might be independent of it, but had little to do with creating it. The resulting narratives are largely self-contained in two crucial senses: they rarely require going either beyond Europe or beyond the model of free, competing buyers and sellers at the heart of mainstream economics. For those scholars who also explain the increased speed of technological change largely in terms of a patent system granting more secure property in creativity, this closure becomes almost complete.

The emphasis on “European” industrialization has also tended to shape the units used in our comparisons, often in unhelpful ways. In some cases, we get comparative units based simply on contemporary nation-states, so that Britain is compared to India or China. But India and China are each more comparable in size, population, and internal diversity to Europe as a whole than to individual European countries; and a region within either subcontinent that by itself might be comparable to Britain or the Netherlands is lost in averages including Asian equivalents of the Balkans, southern Italy, Poland, and so on. Unless state policy is the center of the story being told, the nation is not a unit that travels very well.

A second durable approach has been to first search for things that made “Europe” as a whole distinct (though the particulars chosen often really describe only part of the continent) and then, once the rest of the world has been dropped from the picture, to look within Europe for something that made Britain distinct. These continental or “civilizational” units have so powerfully shaped our thinking that it is hard to shake them; they will appear here, too. But for many purposes, it seems more useful to try a different approach, anticipated in important ways by my colleague R. Bin Wong.¹¹

Let us grant the following: few essential characteristics unite, say, Holland and the Ukraine, or Gansu and the Yangzi Delta; a region like the Yangzi Delta (population 31,000,000–37,000,000 circa 1750, depending on the precise definition) is certainly big enough to be compared to eighteenth-century European countries; and various core regions scattered around the Old World—the Yangzi Delta, the Kantō plain, Britain and the Netherlands, Gujarat—shared

¹⁰ Ibid. In his work with Keydar on Britain and France, O’Brien makes the much more convincing but rather different point that European industrialization was not *simply* the diffusion of British innovations to the rest of the continent. France, for instance, concentrated on different industries, which often involved finishing British semi-finished goods. But the very complementarity between Britain and France that shows the possibility of different routes to industrialization also suggests that we cannot simply remove British industrialization from the story and say that had that not happened, the continent would have industrialized anyway. And the British story, as we shall see, is unimaginable without two crucial discontinuities—one created by coal and one by colonies.

¹¹ Wong 1997.

some crucial features with each other, which they did not share with the rest of the continent or subcontinent around them (e.g., relatively free markets, extensive handicraft industries, highly commercialized agriculture). In that case, why not compare these areas directly, before introducing largely arbitrary continental units that had little relevance to either daily life or the grand patterns of trade, technological diffusion, and so on?¹² Moreover, if these scattered cores really had much in common—and if we are willing to allow some role for contingencies and conjunctures—it makes sense to make our comparisons between them truly reciprocal: that is, to look for absences, accidents, and obstacles that diverted England from a path that might have made it more like the Yangzi Delta or Gujarat, along with the more usual exercise of looking for blockages that kept non-European areas from reproducing implicitly normalized European paths.

Here, too, I am following a procedure outlined in Wong's recent *China Transformed*. As Wong points out, much of classic nineteenth-century social theory has been rightly faulted for its Eurocentrism. But the alternative favored by some current "postmodern" scholars—abandoning cross-cultural comparison altogether and focusing almost exclusively on exposing the contingency, particularity, and perhaps unknowability of historical moments—makes it impossible even to approach many of the most important questions in history (and in contemporary life). It seems much preferable instead to confront biased comparisons by trying to produce better ones. This can be done in part by viewing both sides of the comparison as "deviations" when seen through the expectations of the other, rather than leaving one as always the norm. It will be my procedure in much of this book, though my concrete application of this reciprocal comparative method has some significant differences from Wong's, and I carry the approach onto rather different terrain.¹³

This relatively untried approach at least generates some new questions that put various parts of the world in a different light. For instance—and here again I largely agree with Wong—I will argue that a series of balanced comparisons show several surprising similarities in agricultural, commercial, and proto-industrial (i.e., handicraft manufacturing for the market rather than home use) development among various parts of Eurasia as late as 1750. Thus the explosion of further growth in western Europe alone during the nineteenth century again becomes a rupture to be explained. By contrast, some recent literature, by limiting itself to intertemporal European comparisons and finding similarities there (which are real enough), tends to obscure this rupture. Thus, such

¹² On the limited utility of "civilizations" as a unit, see Fletcher (1995: 3–7); Hodgson (1993: 17). On continents, see Wigen and Lewis (1997).

¹³ For example, I place greater stress than Wong does on global conjunctures and reciprocal influences and bring more places besides Europe and China into the discussion; I also say little about some of his topics, such as state formation, and much more about some he does not treat extensively, such as environmental change.

literature also often barely passes over important contributions to industrialization—especially conjunctural ones—which may appear as taken-for-granted “background” in a comparison limited to different periods in Europe.

A strategy of two-way comparisons also justifies linking what may at first seem two separate issues. The point at which western Europe became the richest economy need not be the same as the point at which it broke out of a Malthusian world into one of sustained per capita growth. Indeed, most of what I have called the “Europe-centered” approaches argue that western Europe had become uniquely rich long before its industrial breakthrough. And if our only question were whether China (or India, or Japan) could have made its own breakthrough to such a world—i.e., if we normalize the European experience and make it the pattern one would expect in the absence of “blockages” or “failures”—it would no longer be very important to ask when Europe actually escaped a Malthusian world: it would matter far more that it had been for a long time on a path bound to lead to that breakthrough eventually. Meanwhile, the dates by which it had definitively surpassed other places would tell us little about other possibilities for Europe and only about when those other places had taken their detours into stagnation.

But if we make reciprocal comparisons and entertain the possibility that Europe could have been a China—that no place was bound to achieve dramatic and sustained per capita growth—the link between the two becomes closer. If we further argue—as I will in subsequent chapters—that some other parts of the eighteenth-century world were roughly as close as Europe was to maximizing the economic possibilities available to them without a dramatic easing of their resource constraints (like that made possible for Europe by fossil fuels and the New World), then the link between the two issues becomes closer still.

The two questions are still separable: differences in climate, soil, etc., might have given different areas different preindustrial possibilities. But it seems unlikely that Europe enjoyed a substantial edge in those possibilities over all other densely settled regions, particularly since the evidence presented later in this book suggests that it did not in fact become much better-off than east Asia until industrialization was well under way. Or it might turn out that although Europe did not pull ahead of east Asia until the eve of industrialization, certain institutions were in place by a much earlier date that did make industrialization bound to happen after all; that even without the Americas and favorably located fossil fuels, technological inventiveness was already sufficient to sustain growth in the face of any particular local resource shortages, and without resorting to the extremely labor intensive solutions which sustained aggregate, but not per capita, growth elsewhere. But the strong assumptions that such an assertion of inevitability would require begin to look shaky once we actually hold Europe up against the standard of some other preindustrial economies—especially since the last few centuries of European economic history before industrialization do not show consistent and robust per capita growth. Thus,

two-way comparisons both raise new questions and reconfigure the relationships among old ones.

Thus, this book will emphasize reciprocal comparisons between *parts* of Europe and parts of China, India, and so on that seem to me to have been similarly positioned within their continental worlds. We will return to continental units and to still larger units, such as the Atlantic world, when our questions—such as those about the relationships of cores to their hinterlands—require it. And in some cases we will need to take the entire world as our unit, requiring a somewhat different kind of comparison—what Charles Tilly calls the “encompassing comparison,” in which rather than comparing two separate things (as classical social theory did) we look at two parts of a larger whole and see how the position and function of each part in the system shape their nature.¹⁴ At this level, which I emphasize more than Wong does, comparison and the analysis of connections become indistinguishable. The importance of keeping the analysis reciprocal, however, remains. Our perception of an interacting system from which one part benefited more than others does not in itself justify calling that part the “center” and assuming that it is the unshaped shaper of everything else. We will see, instead, vectors of influence moving in various directions.

Variations on the Europe-Centered Story: Demography, Ecology, and Accumulation

The arguments positing that western Europe’s economy was uniquely capable of generating an industrial transformation generally fall into two clusters. The first, typified by the work of E. L. Jones, argues that beneath a surface of “pre-industrial” similarity, sixteenth- through eighteenth-century Europe had already moved far ahead of the rest of its world in the accumulation of both physical and human capital.¹⁵ A central tenet of this view is that various customary checks on fertility (late marriage, a celibate clergy, etc.) allowed Europe to escape from the otherwise universal condition of a “pre-modern fertility regime” and thus from a similarly universal condition in which population growth absorbed almost all of any increase in production. Consequently, Europe was uniquely able to adjust its fertility to hard times and to increase its per capita (not just total) capital stock over the long haul.

Thus, in this view, differences in the demographic and economic behavior of ordinary farmers, artisans, and traders created a Europe that could support more non-farmers; equip its people with better tools (including more live-stock); make them better nourished, healthier, and more productive; and create a larger market for goods above and beyond the bare necessities. The central

¹⁴ Tilly 1984.

¹⁵ Jones 1981, 1988.

arguments underlying this position were laid out over thirty years ago by John Hajnal:¹⁶ they have been elaborated since then, but not radically altered. However, as we shall see in chapter 1, recent work on birthrates, life expectancy, and other demographic variables in China, Japan, and (more speculatively) Southeast Asia has made what Hajnal thought were unique European achievements look more and more ordinary.

The significance of these findings has not yet been fully appreciated, but they have been partially acknowledged in the one important recent addition to the demographically driven story line: the recognition that there were economic booms and rising living standards in preindustrial settings outside Europe. However, these are always treated as temporary flowerings that either proved vulnerable to political shifts or played themselves out as productivity-enhancing innovations proved unable to stay ahead of the population increases that prosperity encouraged.¹⁷

Such stories are an important advance over much earlier literature, which argued either implicitly or explicitly that the whole world was poor and accumulation minimal until the early modern European breakthrough; among other things, it has forced scholars to look at “the fall of Asia”¹⁸ as well as the “rise of Europe.” However, these versions of the story are often anachronistic in at least two crucial ways.

First, they tend to read too much of the nineteenth- and twentieth-century ecological disasters that have afflicted much of Asia (and the underlying problem of dense population) back into earlier periods and present eighteenth-century Asian societies as having exhausted all the possibilities available to them. Some versions attribute this condition to all of an artificial unit called “Asia” circa 1800; but, as we shall see, India, Southeast Asia, and even parts of China still had a good deal of room to accommodate more people without either a major technological breakthrough or a decline in the standard of living. Probably only a few parts of China and Japan faced such a situation.

Second, such stories often “internalize” the extraordinary ecological bounty that Europeans gained from the New World. Some do so by assimilating overseas expansion to the pattern of “normal” frontier expansion within Europe (e.g., the clearing and settlement of the Hungarian plain or the Ukraine, or of German forests). This ignores the exceptional scale of the New World windfall, the exceptionally coercive aspects of colonization and the organization of production there, and the role of global dynamics in ensuring the success of European expansion in the Americas.¹⁹ The clearing of new agricultural lands in Hungary and the Ukraine had parallels in Sichuan, Bengal, and many other Old World locales; what happened in the New World was very different from anything in either Europe or Asia. Moreover, because nineteenth-century

¹⁶ Hajnal 1965, 1982.

¹⁸ Abu-Lughod 1989; Frank 1998.

¹⁷ Jones 1988; Elvin 1973; Powelson 1994.

¹⁹ See, e.g., Jones 1981: 70–74.

Europe found enormous ecological relief beyond its borders—both acquiring resources and exporting settlers²⁰—such accounts rarely consider whether some densely populated core regions in sixteenth- through eighteenth-century Europe faced ecological pressures and options not radically different from those of core regions in Asia.

Thus, the literature that incorporates the “fall of Asia” tends to do so with the aid of an oversimplified contrast between an ecologically played-out China, Japan, and/or India, and a Europe with plenty of room left to grow—a Europe that, in one formulation, had the “advantages of backwardness”²¹ because it had not yet developed enough to make full use of its internal resources.

In an attempt to move beyond such impressionistic claims, chapter 5 offers a systematic comparison of ecological constraints in selected key areas of China and Europe. This inquiry shows that although some parts of eighteenth-century Europe had some ecological advantages over their east Asian counterparts, the overall pattern is quite mixed. Indeed, key Chinese regions seem to have been better-off than their European counterparts in some surprising ways, such as available fuel supply per capita. Moreover, Britain, where industrialization in fact began, had few of the underutilized resources that remained in various other parts of Europe. Indeed, it seems to have been no better-off than its rough counterpart in China—the Lower Yangzi Delta—in timber supply, soil depletion, and other crucial ecological measures. Thus, if we accept the idea that population growth and its ecological effects made China “fall,” then we would have to say that Europe’s internal processes had brought it very close to the same precipice—rather than to the verge of “take-off”—when it was rescued by a combination of overseas resources and England’s breakthrough (partly conditioned by geographic good luck) in the use of subterranean stores of energy. If, on the other hand, Europe was not yet in crisis, then in all likelihood China was not either.

In making this argument this book parallels some of the arguments in work on global development by Sugihara Kaoru—work I discovered too late in my writing to deal with in great detail.²² Sugihara emphasizes, as I do, that the high population growth in east Asia between 1500 and 1800 should not be seen as a pathology that blocked “development.” On the contrary, he argues, this was an “East Asian miracle” of supporting people, creating skills, and so on, which is fully comparable as an economic achievement to the “European miracle” of industrialization. Sugihara also emphasizes, as I do, the high standard of living in eighteenth-century Japan and (to a lesser extent in his view) China, as well as the sophistication of institutions that produced many of the beneficial effects of markets without the same state guarantees for property and contract

²⁰ Crosby 1986: 2–5, 294–308.

²¹ Frank 1998: 283, playing on Gerschenkron.

²² Sugihara 1996.

that many Westerners believe is the precondition of markets.²³ He also argues—a point consistent with my argument though beyond the scope of this book—that in the long run it has been a combination of western European and east Asian types of growth, allowing Western technology to be used in societies with vastly more people, which has made the largest contribution to world GDP, not a simple diffusion of Western achievements.

Sugihara does, however, suggest that a basic difference between these two “miracles” is that as far back as 1500, western Europe was on a capital-intensive path and east Asia on a labor-intensive path. By contrast, I argue—in keeping with the finding of surprising similarities as late as 1750 and with my determination to take the question “Why wasn’t England the Yangzi Delta?” as seriously as “Why wasn’t the Yangzi Delta England?”—that Europe, too, could have wound up on an “east Asian,” labor-intensive path. That it did not was the result of important and sharp discontinuities, based on both fossil fuels and access to New World resources, which, taken together, obviated the need to manage land intensively. Indeed, there are many signs that substantial regions in Europe were headed down a more labor-intensive path until dramatic late eighteenth- and nineteenth-century developments reversed that path. We will find such evidence in aspects of agriculture and proto-industry throughout Europe (including England) and in almost everything about Denmark.²⁴ The East-West difference that developed around labor-intensity was not essential but highly contingent; the distribution of population growth (as opposed to its aggregate size) turns out to be one crucial variable, which in turn has much to do with market *distortions* in sixteenth- through eighteenth-century Europe and with migration to the New World in the nineteenth century.

In both China and Japan population growth after 1750 was heavily concentrated in less-developed regions, which then had smaller surpluses of grain, timber, raw cotton, and other land-intensive products to “vent” through trade with resource-hungry cores; and since part of the increased population of these peripheral areas went into proto-industry, they also had less need to trade with core regions. In Europe, on the other hand, it was largely areas that were already relatively advanced and densely populated that had large population increases between 1750 and 1850. Most of eastern Europe, for instance, only began to experience rapid population growth after 1800, and southern Europe (especially southeastern Europe) began to catch up even later. Chapters 5 and 6 will have much more to say about the political-economic and ecological bases of these differences and their significance for industrialization. Meanwhile, it is worth emphasizing that they are not differences that reflect a greater

²³ It is worth noting, however, that in recent years many Western economic historians have also become interested in describing institutional arrangements that made contracts easily enforceable, and thus permitted efficient markets, even in the absence of much state involvement in guaranteeing property rights. For a helpful summary, see Greif 1998: 597–633.

²⁴ See for instance Ambrosoli 1997; Levine 1977; Kjaergaard 1994.

overall strain on resources in east (much less south) Asia as compared to Europe. Let us move, then, from arguments about quantities of resources available—either those already accumulated or those left untapped—to arguments claiming that European institutions *allocated* resources in ways more conducive to long-term self-sustaining growth.

Other Europe-Centered Stories: Markets, Firms, and Institutions

A second group of arguments—evident in somewhat different ways in the work of Fernand Braudel, Immanuel Wallerstein, and K. N. Chaudhuri, and in a very different way in that of Douglass North—pays less attention to *levels* of wealth. Instead, these arguments emphasize the emergence of institutions in early modern Europe (or some part of it) said to be more conducive to economic development than those existing elsewhere. The focus of these arguments is generally on the emergence of efficient markets and property-rights regimes that rewarded those who found more productive ways to employ land, labor, and capital. A common, though not universal, companion to these arguments is the claim that economic development was stifled elsewhere (especially in China and India) by a state that was either too strong and hostile to private property or too weak to protect rationalizing entrepreneurs when the latter clashed with local customs, clergy, or strongmen.²⁵

Potentially consistent with these arguments—though quite distinct from them—is the work of Robert Brenner, who explains divergent development paths within Europe as the result of class struggles that altered property-rights regimes. In Brenner's interpretation, western European peasants won the first round of a struggle with their lords in the century or so after the Plague, establishing their freedom from forced labor; eastern European peasants lost, and the ruling class lived for centuries thereafter by squeezing peasants harder, without ever modernizing agriculture or introducing labor-saving innovations. Within western Europe, Brenner continues, a second round of struggle ensued, with lords who now owned only the land seeking the freedom to manage it so as to maximize profits, often by removing unproductive or "excess" tenants. French elites lost this battle, according to Brenner, and France was stuck thereafter with an agricultural system based on millions of smallholders neither able nor very interested in innovations that would make some of them unnecessary. But in England the lords won, invested in innovations that made it possible to cut labor costs, and expelled huge numbers of unneeded workers from the land. At least some of these dispossessed farmers eventually became En-

²⁵ Wittfogel 1957; Jones 1981: 66–67, 118, 125; Jones 1988: 130–46; Mokyr 1990: 233–34, 256–60; Powelson 1994.

gland's industrial workforce, buying food from the agrarian surplus created by their expulsion and marketed by their former lords.

In Brenner's argument, class struggle, rather than either Malthusian pressures or the "natural" emergence of more perfect markets, supplies the motor of the story; the destination, however, is similar. How much a society winds up resembling neoclassical models determines how productive it will be thereafter; in particular, England, the country where land and labor wound up most sharply separated (and most completely commodified) is presumed to have *therefore* developed the most dynamic economy. In this, Brenner winds up rather oddly aligned with Douglass North, who—while rejecting class struggle as the explanation of property-rights regimes—also argues that economies became increasingly capable of development as they evolved increasingly competitive markets for commodified land, labor, capital, and intellectual property.

Both North's and Brenner's arguments focus on the institutional settings in which the great majority of people operated: markets for day labor, tenancy contracts, and for products that ordinary people both produced and consumed. In this they resemble the arguments discussed above, which argue that preindustrial Europeans were already uniquely prosperous and productive, and tend to merge with those arguments.

However, the other major set of institutionalist arguments—those of Braudel and his school—focuses more on the profits accumulated by a few very wealthy people; the institutions that facilitated this kind of accumulation often involved special privileges that interfered with neoclassical markets. Consequently, these scholars have paid more attention to profits based on the use of coercion and collusion. And because many of the great merchants they focus on were involved in long-distance trade, these scholars have paid more attention to international politics and Europe's relations with other areas. Wallerstein, in particular, treats the growth of trade between "feudal" eastern Europe and "capitalist" western Europe as the real beginning of a world economy, and he emphasizes that continued accumulation of profits in the free-labor "core" of that economy has required the continued existence of poor, generally unfree "peripheries."

But nonetheless, the motor of Wallerstein's story is western Europe's unique combination of relatively free labor, large and productive urban populations, and merchants and governments that facilitated long-distance trade and the reinvestment of profits. The international division of labor that emerged from this trade increased the difference in wealth between western Europe and everyone else, since peripheries increasingly specialized in those goods for which cheap, often coerced, labor was more important than the tools and institutions needed for high productivity—but it was based on preexisting socioeconomic differences that enabled western Europe to impose on others in the first place.

Problems with the Europe-Centered Stories

This work borrows from these arguments—mostly those of the various “institutionalists”—but ultimately argues for different propositions. First, no matter how far back we may push for the origins of capitalism, *industrial* capitalism, in which the large-scale use of inanimate energy sources allowed an escape from the common constraints of the preindustrial world, emerges only in the 1800s. There is little to suggest that western Europe’s economy had decisive advantages before then, either in its capital stock or economic institutions, that made industrialization highly probable there and unlikely elsewhere. The market-driven growth of core areas in western Europe during the preceding centuries was real enough and was undoubtedly one crucial precursor of industrialization—but it was probably no *more* conducive to industrial transformation than the very similar processes of commercialization and “proto-industrial” growth occurring in various core areas in Asia.²⁶ The patterns of scientific and technical development that were taking shape in early modern Europe were more unusual, but we shall see that they still did not, by themselves, guarantee that western Europe would wind up on a fundamentally different economic path from, for instance, east Asia.

Second, European industrialization was still quite limited outside of Britain until at least 1860. Thus, positing a “*European* miracle” based on features common to western Europe is risky, all the more so since much of what was widely shared across western Europe was at least equally present elsewhere in Eurasia.

Part 1 of this book calls into doubt various contentions that Europe had an internally generated economic edge before 1800. It substitutes a picture of broad similarities among the most densely populated and commercialized parts of the Old World. Chapter 1 draws on evidence from numerous places to show that Europe had not accumulated a crucial advantage in physical capital prior to 1800 and was not freer of Malthusian pressures (and thus more able to invest) than many other large economies. People in various other areas seem to have lived as long and as well as Europeans and to have been at least equally willing and able to limit fertility in the interest of household-level accumulation. The second half of the chapter then examines the possibility that Europe had a crucial technological edge even before the Industrial Revolution. Here we do find some differences that mattered—but which would have had smaller, later, and probably qualitatively different effects without both the fortunate geographic accidents essential to the energy revolution and Europe’s

²⁶ Sugihara and Hayami (1989) see the “industrial” and “industrious” revolutions diverging already in the seventeenth century, Arrighi in the eighteenth century. Although there are indeed signs of such a divergence that far back, I will argue that it was not sealed until the turn of the nineteenth century, when the New World plus coal made it clear that such a land-using, resource-intensive path would remain sustainable for a prolonged period.

privileged access to overseas resources. Technological inventiveness was necessary for the Industrial Revolution, but it was not sufficient, or uniquely European. It is unclear whether whatever differences existed in the *degree* of technological inventiveness were crucial to exiting a Malthusian world (technological breakthroughs could have been spread over a slightly longer period), but it is clear that the differences in global context that helped ease European resource constraints—and so made innovation along particular (land-using, energy-using, and labor-saving) paths a fruitful, even self-reinforcing, process—were significant.

Chapter 2 turns to markets and related institutions. It focuses primarily on a comparison between western Europe and China. It shows that western European land, labor, and product markets, even as late as 1789, were on the whole probably *further* from perfect competition—that is, less likely to be composed of multiple buyers and sellers with opportunities to choose freely among many trading partners—than those in most of China and thus less suited to the growth process envisioned by Adam Smith. I begin by comparing laws and customs governing the ownership and use of land and the extent to which agricultural producers could choose to whom to sell their output. The next section concerns labor: the extent of compulsory labor, restrictions on (or encouragement of) migration, restrictions on changing occupations, and so on.

The last and most complex section of chapter 2 treats the relationships between households as units of consumption and as institutions that allocated labor—particularly that of women and children. Some scholars have argued that Chinese families were more prone than western European ones to keep women and children working beyond the point at which their marginal output sank below the value of a subsistence wage, thus producing an “involved economy”; I will show that there is little reason to believe this.²⁷ Rather, labor deployment in Chinese families seems to closely resemble the reorientation of labor, leisure, and consumption toward the market that Jan DeVries has called Europe’s “industrious revolution.”²⁸ In sum, core regions in China and Japan circa 1750 seem to resemble the most advanced parts of western Europe, combining sophisticated agriculture, commerce, and nonmechanized industry in similar, arguably even more fully realized, ways. Thus we must look outside these cores to explain their subsequent divergence.

Building a More Inclusive Story

Part 2 (chapters 3 and 4) begins by moving away from survival-oriented activities to examine new kinds of consumer demand, the cultural and institutional changes that accompanied them, and the possibility that differences in demand

²⁷ P. Huang 1990: 11–17; for a related argument see also Goldstone 1996.

²⁸ DeVries 1994b.

had important effects on production (chapter 3). Here we find differences that may well have differentiated China, Japan, and western Europe from other places, but not very much from each other. The differences in both quantities of goods available and “consumerist” attitudes among these societies seem small and of uncertain direction. (For instance, mid-eighteenth-century Chinese almost certainly consumed more sugar than Europeans, and people in the Lower Yangzi core may have produced as much cloth per capita in 1750 as Britons did in 1800.) And institutions in all these societies (though not necessarily elsewhere) seem to have been such that increased production routinely created demand, while it is much less clear that increased demand could create supply. Finally, those differences in consumer behavior that did favor Europe seem to have been heavily influenced by extra-European elements—for example, the extraction of New World silver and the demand for it in Asia, which sucked other “exotic” goods into Europe, and the system of production shaped by New World plantations and slavery.

Chapter 4 then follows the merchants and manufacturers who brought the new “luxuries” of chapter 3—whether imported, imitated (e.g., Wedgewood “china”), or purely homegrown—to market. In doing so, it moves away from the “typical” household and the sorts of markets for land, labor, and consumer goods in which they participated. Instead it looks at actors who operated on a larger scale, examining markets in the last factor of production—capital—and arguments about a distinctive European capitalism. It thus moves away from institutional arguments focused entirely on the growth of allegedly more perfect markets within western Europe to those that pay more attention to external connections, find advantages for certain crucial actors in imperfect competition, and so also pay more heed to extraeconomic coercion.

Chapter 4 begins by rejecting various arguments that either the general structure of society or the specific rules surrounding commercial property gave European merchants a crucial advantage in amassing capital, preserving it from the state, or deploying it rationally. Although some financial assets may have been better defined and more secure in Europe (or at least in England, Holland, and the Italian city-states), such differences are too small to bear the explanatory weight assigned to them by scholars as diverse as Fernand Braudel, K. N. Chaudhuri, and Douglass North—and even harder to link to the early Industrial Revolution, which was not very capital intensive. Certainly some of the larger Chinese firms, for instance, regularly assembled sums of capital adequate to implementing the major technical innovations of the pre-railroad era.

Western European interest rates were probably lower than Indian, Japanese, or Chinese ones; but it turns out to be very hard to show that this made an important difference to relative rates of agricultural, commercial, or proto-industrial expansion, and even harder to show much impact on the early rise of mechanized industry. And it is significant that where eighteenth-century

Europeans' supposedly superior commercial organizations had to compete with merchants from other Old World regions without using force, their record was mediocre. Only in overseas colonization and *armed* trading did Europe's financial institutions—nurtured by a system of competing, debt-financed states—give it a crucial edge.

Even more important, as Braudel himself emphasizes, is the point that capital was not a particularly scarce factor of production in the eighteenth century.²⁹ Constraints connected to energy, and ultimately to quantities of land (particularly the shrinking forests of core areas throughout Eurasia), were a far more important looming impediment to further growth. The essence of development was that both labor and capital became more plentiful relative to land, but producing any of Malthus's four necessities of life—food, fiber (clothing), fuel, and building materials—still required land.

To some extent, capital and labor could create more land (reclamation) or make land yield more food and fiber through irrigation, fertilization, or extra-careful weeding, but this was quite limited compared to what late nineteenth-century chemical industries would make possible. And when it came to producing fuel and building materials before the massive use of fossil fuels, the ability of labor and capital to substitute for land was very limited indeed. Thus, even if Europe had an edge in assembling investment capital, this would not by itself have solved the ecological bottlenecks faced by all the most “developed” proto-industrial regions. Certainly there are enough examples of capital-rich but late industrializing areas even within Europe to make any link between greater capital accumulation and a transition to industrialism dubious. Northern Italy and Holland are obvious examples, despite their highly sophisticated commercial economies, and so, in a different way, is Spain, where a huge flood of silver into a less-developed economy may well have retarded growth.³⁰

Braudel did not systematically explore how his own insight about the relative abundance of capital before 1800 might affect explanations of European distinctiveness; instead he turned back to unverified claims that European fortunes were more secure.³¹ However, the Braudelian family of arguments does direct our attention toward long-distance trade and toward phenomena—the state, colonial ventures, and nonmarket extraction—which I think played a greater role in the European breakthrough than is visible in most recent studies. In particular, I will argue that while neither the new forms of property created in early modern Europe (e.g., corporations and various securitized claims on future income streams) nor the domestic policies of Europe's competing and revenue-hungry states made pre-1800 Europe itself a significantly better environment for productive activity, the projection of interstate rivalries overseas

²⁹ Braudel 1977: 60; DeVries 1976: 210–14.

³⁰ Flynn 1984; Hamilton 1934.

³¹ Braudel 1977: 60–75.

did matter. Similarly, joint-stock companies and licensed monopolies turned out to have unique advantages for the pursuit of armed long-distance trade and the creation of export-oriented colonies—activities that required what were for the time exceptional amounts of capital willing to wait a relatively long time for returns. When we combine this notion of European capitalism, in which links to the state and the right to use force and preempt certain markets loom large, with the idea that advanced market economies everywhere faced growing ecological problems, a new picture emerges of what Europe's most significant differences were.

Part 3 (chapters 5 and 6) then sketches a new framework for thinking about the relationships between internal and external factors in Europe's development path. Chapter 5 begins by arguing for serious ecological obstacles to *further* growth in all of the most densely populated, market-driven, and commercially sophisticated areas of Eurasia. These were not so acute as to cause major food crises, but they made themselves felt in shortages of fuel and building materials, to some extent in shortages of fiber, and in threats to the continued fertility of some areas' soils. After examining these constraints, the last part of chapter 5 examines the attempts made by all these core areas to address these shortages through long-distance trade with less densely populated Old World areas; it argues that such trade could not provide a fully adequate solution. The high cost of transport before the age of steam was one reason, but others are rooted in the political economies of many of the "peripheral" regions, the relatively low levels of demand there, and the resulting difficulties of sustaining an exchange of core manufactured goods for raw materials without either a colonial system to enforce it or the much larger interregional differences in manufacturing productivity (often based on relatively immobile factors such as capital equipment embodying new technology) that emerged from the late nineteenth century onward.

Chapter 6 then considers the dramatic easing of Europe's land constraint during industrialization. It looks briefly at the shift from wood to coal—an important story, but one well covered elsewhere—and then turns to the ecological relief provided by Europe's relations with the New World. This relief was predicated not merely on the natural bounty of the New World, but also on ways in which the slave trade and other features of European colonial systems created a new *kind* of periphery, which enabled Europe to exchange an ever-growing volume of manufactured exports for an ever-growing volume of land-intensive products.

A crucial part of this complementarity, up through the early industrial era, was the result of slavery. Slaves were purchased from abroad by New World plantations, and their subsistence production was often limited. Thus, slave regions imported much more than, say, eastern Europe and southeast Asia, where the producers of export crops were born locally, met most of their own basic needs, and had little cash with which to buy anything else.

The plantation zone also differed in critical ways from free labor peripheries such as the Chinese interior. Exporters of rice, timber, and raw cotton in east Asia had more purchasing power than did peasants in regions of coerced cash-cropping and had greater flexibility and incentives to respond to external demand. But the same system of more or less free labor that produced these dynamic peripheries also allowed people to shift away from activities with diminishing returns. With time, these areas tended to undergo significant population growth (partly due to rising incomes) and proto-industrialization of their own; this decreased both their need to import manufactures and the surplus of primary products that they could export.

By contrast, the circum-Caribbean plantation zone showed much less tendency to diversify its production or to cease needing imported slaves and provisions. And since Europe acquired most of the slaves it shipped to the New World in return for manufactures (especially cloth), while much of the grain and timber sent to the Caribbean came from British North America, enabling those colonies to buy European manufactures, all of the New World's import needs—even those for grain and humans—helped Europe use labor and capital to solve its land shortage. Finally, we will also see in chapter 6 that dynamics set in motion during the colonial period created the framework for a flow of resources to Europe from both slave and free areas that accelerated throughout the nineteenth century, despite independence and emancipation.

In the process, chapter 6 also shows how differing long-term core-periphery relations could shift the significance of a feature common to various core regions in Eurasia. That feature is “proto-industrialization”: the massive expansion of nonmechanized industries, mostly composed of rural laborers producing for (often distant) markets through the mediation of merchants. Historians of Europe, who created the concept, have been divided about the relationship between proto-industrialization and industrialization proper. Some have argued that proto-industrialization contributed to the accumulation of profits and/or the development of market-oriented activity, specialization, and tastes for products hard to make at home. And Joel Mokyr has shown—in an argument I would claim is as applicable to parts of Asia circa 1750 as for his own European cases—that the development of a large pool of “pseudo-surplus labor” in proto-industrial occupations could make a crucial contribution to industrialization, without many of the complications that arise if we look for industrial workers to emerge from “surplus labor” in agriculture.³²

But Mokyr's model of proto-industrialization assumes that proto-industrial areas will be able to keep expanding their handicraft exports and agricultural imports without affecting relative prices in whatever “world” they are a part of. Considering the limits of this assumption brings into focus another side of proto-industrialization.

³² Mokyr 1976: 132–64; compare Lewis 1954: 139–91.

Proto-industrial growth has generally been associated with significant population increases (though the exact nature of the connection is hotly disputed); and in many cases, rapid population growth in proto-industrial areas has been associated with a vicious cycle of very low piece rates, increasing output from workers struggling to buy enough food and often without much access to land, and still lower piece rates. Any shift in relative prices—whether created by an increased proto-industrial population glutting the export market while needing to import more food, or by diminishing external supplies and markets—will intensify this pattern of immiseration. And more generally speaking, population growth—whatever its relationship to proto-industrialization—could place serious pressure on the land needed for raising fuel, fiber, and other necessities of industrial development. Unless these goods can be acquired by trade, the only way to keep increasing output is by working the land more intensely, which with the technologies then available meant higher farm-product prices, lower per capita productivity, and a drag on industrial growth.

Signs of both serious ecological bottlenecks and spiraling poverty among too-numerous proto-industrial workers and underemployed farm laborers are as evident in many regions of mid-eighteenth-century Europe as in comparable parts of China or Japan—indeed, perhaps more so. But then, I will argue, Europe and east Asia changed places.

China's Lower Yangzi, for instance, had increasing trouble selling enough cloth and importing enough food and timber to sustain either proto-industrial growth or the relatively high living standard of its workers. This was not because of any internal "flaw" in the region but because the areas it had traded with were undergoing their own population and proto-industrial booms and so were becoming less complementary to it. To some extent, the Yangzi Delta compensated as a leading area should—moving up the value-added ladder by specializing in higher-quality cloth—but this was not enough. In short, markets worked well within China's eight or nine macro-regions (each larger than most European states), encouraging people in much of the interior to devote more time to making cloth and the like as they filled up the land, felled the trees nearest the rivers, and so on. But these smoothly functioning regional markets and interdependencies conflicted with the growth of empire-wide markets, especially after about 1780; this made it harder for one or two leading regions to keep growing and to avoid having to adopt even more labor-intensive strategies for conserving land and land-intensive products. Thus, freedom and growth in the peripheries without dramatic technological change led the country as a whole toward an economic *cul de sac*.

By contrast, northwestern Europe became able, in the century after 1750, to specialize in manufactures (both proto-industrial and industrial) to an unprecedented degree and to make its spectacular population growth during this period an asset. A big part of this transformation was, of course, a series of impressive technological advances in manufacturing (which made huge amounts of rela-

tively cheap goods available to exchange for land-intensive products) and in transportation, which greatly facilitated specialization. But these relatively well-known developments are not the whole story. Western Europe could also increase its population, specialization in manufacturing, and per capita consumption levels—when even eighteenth-century levels had seemed to many people near the limits of ecological possibility—because the limits imposed by its finite supply of land suddenly became both more flexible and less important. This was partly because its own institutional blockages had left significant unexploited agricultural resources that could be tapped after the French Revolution and post-Napoleonic reforms in Germany; partly because far more extreme institutional blockages (above all serfdom) in eastern Europe (the counterpart to, say, China's Upper Yangzi or southwest) had left lots of slack there; and partly because new land management techniques were brought home from the empire in the early nineteenth century. In all these ways, one might argue, Europe was catching up with China and Japan in both best and average practices in agro-forestry, rather than blazing new trails. Even so, Europe's transformation also required the peculiar paths by which depopulation, the slave trade, Asian demand for silver, and colonial legislation and mercantilist capitalism shaped the New World into an almost inexhaustible source of land-intensive products and outlet for western Europe's relatively abundant capital and labor. Thus, a combination of inventiveness, markets, coercion, and fortunate global conjunctures produced a breakthrough in the Atlantic world, while the much earlier spread of what were quite likely better-functioning markets in east Asia had instead led to an ecological impasse.

Thus, chapter 6 locates the significance of the Atlantic trade not in terms of financial profits and capital accumulation, nor in terms of demand for manufactures—which Europe could have probably generated enough of at home³³—but in terms of how much they relieved the strain on Europe's supply of what was truly scarce: land and energy. And because it helped ease these fundamental, physical constraints, Europe's overseas extraction deserves to be compared with England's turn to coal as crucial factors leading *out* of a world of Malthusian constraints, rather than with developments in textiles, brewing, or other industries, which, whatever their contributions to the accumulation of *financial* capital or development of wage labor, tended to intensify, rather than ease, land and energy squeezes in the core areas of western Europe. And, indeed, a preliminary attempt to measure the importance of this ecological windfall suggests that until well into the nineteenth century, the fruits of overseas exploitation were probably roughly as important to at least Britain's economic transformation as its epochal turn to fossil fuels.

³³ On capital accumulation within Europe versus "exotic sources" see DeVries 1976: 139–46, 213–14. On demand, see *ibid.*, 176–92; Mokyr 1985b: 21–23; and Mokyr 1985a, which questions the significance of demand factors in the Industrial Revolution more generally.

Comparisons, Connections, and the Structure of the Argument

Thus part 1, which is essentially comparative, argues that although a combination of relatively high levels of accumulation, demographic patterns, and the existence of certain kinds of markets may separate out a few places—western Europe, China, Japan, and perhaps others—as the most likely settings for a dramatic shift in economic possibilities, they cannot explain why that shift in fact occurred first in western Europe, or why it happened anywhere. Nor can technological differences explain very much before the nineteenth century (when Europe closed the gap in land management and took a wide lead in many other areas)—and even then, only when Europe’s complex and often violent relations with other parts of the globe are added to the story.

In part 2, intercontinental comparisons continue, but in a context in which intercontinental connections also begin to be important. It argues that as we move toward kinds of economic activity less directly tied to physical necessity—and involving a smaller share of the population—some possibly important western European differences in culture and institutions do appear, even vis à vis other “core” regions. However, these differences are ones of degree rather than of kind, quite limited in strength and scope. They certainly do not justify any claim that western Europe, and western Europe alone, had either a “capitalist mode of production” or a “consumer society,” and they cannot themselves explain the dramatic divergences that *would* emerge in the nineteenth century. Moreover, it is striking that where significant differences are discernible, they are consistently related to *deviations* from simple Smithian market dynamics—especially to state-licensed monopolies and privileges, and to the fruits of armed trade and colonization.

Part 3 begins with comparison again, showing that whatever advantages Europe had—whether from a more developed “capitalism” and “consumerism,” the slack left by institutional barriers to more intensive land use, or even technological innovations—were nowhere near to pointing a way out of a fundamental set of ecological constraints shared by various “core” areas of the Old World. Moreover, purely consensual trade with less densely populated parts of the Old World—a strategy being pursued by all the core areas of Eurasia, often on a far larger scale than pre-1800 western Europe could manage—had limited potential for relieving these resource bottlenecks. But the New World had greater possibilities, in large part due to the effects of global conjunctures. First, epidemics seriously weakened resistance to European appropriation of these lands. Second, the transatlantic relations that followed conquest and depopulation—mercantilism and especially the African slave trade—made the flow of needed resources to Europe self-catalyzing in ways that consensual trade between Old World regions was not: it anticipated, even

before industrialization, the self-perpetuating division of labor between primary products exporters and manufacturing regions in the modern world. Thus the world's first "modern" core and its first "modern" periphery were created in tandem—and this global conjuncture was important in allowing western Europe to build something that was truly unique upon the base of an advanced market economy whose main features were not unique. We end, then, with connections and interactions explaining what comparison alone cannot.

A Note on Geographic Coverage

Having sketched the book's main ideas, a brief warning is in order about its geographic coverage. While joining the burgeoning field of "world history," this book treats the world's regions very unevenly. China (principally east and southeast China) and western Europe are treated at some length; Japan, south Asia, and the Chinese interior much less so; eastern Europe, southeast Asia, and the Americas still less; Africa even less, except through the slave trade; and the Middle East, central Asia, and Oceania are barely mentioned. Moreover, China, Japan, south Asia, and western Europe are treated in terms of both comparisons and connections. In other words, they are treated both as places that were plausible enough sites for fundamental economic transformations that their experiences illuminate the places where such a transformation did occur, and in terms of the reciprocal influences between themselves and other regions.

Eastern Europe, southeast Asia, the Americas, and Africa, on the other hand, are treated largely through their interactions with other regions. This does not imply that they were only acted *upon*—on the contrary, the argument sketched insists that what was possible in the areas we think of as "cores" was conditioned by the development paths and internal dynamics of "their" peripheries. Nor should it imply that the regions I treat comparatively were the only ones where important changes could happen. Industrial growth is just one part, albeit a vital one, of what we call "modernity": others may have other geographic origins. Nor, for that matter, can we afford to understand only those areas that were the seedbeds of what we now take to be the dominant characteristics of our age; to do so would greatly increase the risk of taking those features to be inevitable. In short, adding a few Chinese and Japanese foils to a European story does not make it "world history."

But there are reasons besides my finite energies for focusing as I do here. Some have to do with the stories I want to question and some with the story I want to tell.

First of all, it is China, more than any other place, that has served as the "other" for the modern West's stories about itself, from Smith and Malthus to Marx and Weber. Thus, two crucial aims of this book are to see how different

Chinese development looks once we free it from its role as the presumed opposite of Europe and to see how different European history looks once we see the *similarities* between its economy and one with which it has most often been contrasted.

Second, the processes emphasized in my own argument direct us to densely populated parts of the world and their trading partners. On the one hand, ongoing specialization is fueled by high population density; one cannot generally support oneself doing certain tasks that each person needs done only occasionally unless there are many people within one's market area.³⁴ Population density is not the sole determinant of Smith's "extent of the market," nor is it impossible for even sparsely populated areas to have elaborate arrays of specialists who subdivide certain tasks that the culture deems important. But for elaborate specialization to be developed in many areas of economic activity—food production, clothing production, building, transport, and exchange itself—there is ultimately no substitute for having many people within an affordable physical and cultural distance. (This is also true for specializing in the investigation of the natural world and the quest for new ways to manipulate it—the Smithian component of the much less predictable, but obviously crucial, process of generating technological change.)

Meanwhile, the ecological pressures that are also central to my argument are even more closely linked to demography.³⁵ Of course, areas that are sparsely populated in an absolute sense may also come under heavy ecological pressure if they are simply not capable of supporting very many people, or if people use their environment in certain ways. Thus in part 3 I make a distinction between densely populated areas and what I call "fully populated" ones—areas that have little room left for extensive growth without significant land-saving technological change, institutional improvements, or increased access to land-intensive commodities through external trade, even though they may have fewer people per acre than some other area. (Thus eighteenth-century Britain, for instance, could be more "fully populated" than Bengal, even at a lower population density, given its far lower per-acre yields and higher standard of living.) But this criterion, too, leads to a focus on western Europe, China,

³⁴ It should be noted in this connection that "specialization" is not the same as "division of labor," much less "complexity." One could imagine, for instance, a society with extremely complex rules of exchange determining who baked the bread each week, but in which no one person was a full-time baker. Such a society could certainly be as complex as any, and its people each master of a very complicated set of skills, but precisely for that reason, it would not have the same economic dynamics as one in which people are continually driven to focus on just a few tasks for which they in particular can find a market.

³⁵ I call these dynamics quasi-Malthusian because I do not argue that population densities were necessarily about to lead to a decline in the standard of living in any of the core areas I discuss, but only that worsening land/labor ratios were a serious obstacle to large amounts of further growth given the technologies of the preindustrial revolution, and that while early industrial technologies alleviated this constraint, they were not by themselves sufficient.

Japan, and, to a lesser extent, India. Further arguments might be made about dense populations, the pooling of information, and the likelihood of certain kinds of technological and institutional changes, though these are less straightforward.

A final, though less intellectually defensible, point is that my own training has equipped me better to write about China, Europe, and Japan than about other places and to access the relatively large piles of existing research on them. What James Blaut refers to as “uniformitarianism”—the idea that at a certain point (in his analysis, 1492), many interconnected parts of Afro-Eurasia had roughly similar potential for “dynamism” in general, and thus for “modernity”³⁶—is a useful point of departure, but has limits we must discover empirically. It would be a remarkable coincidence if it turned out to be applicable everywhere, and there is much evidence that it is not. My own guess, as made above, is that population density will turn out to be extremely important, and thus that it is more likely that, say, north India will turn out to belong with China, Japan, and western Europe than, say, central Asia or even the Ottoman Empire.³⁷ (It is worth remembering in this connection that anyone attempting to write a book like this ten years ago would have had a much harder time finding literature to support the case I make for China than I have; twenty-five years ago it would have been hard even for Japan.) But with the literature available now—both based on my own limits and the limits of our knowledge—the geographic emphases in this book seem adequate to at least put new questions on our agendas. The places I look at relatively closely are not the world, nor does the rest of the world only matter as it interacts with them, or when it serves as a negative example, illuminating, for instance, how eastern Europe shows what China and western Europe share by being much more different from both China and western Europe than China and western Europe are from each other. But this is, I think, a reasonable distribution for rethinking where our current industrialized era came from.

³⁶ Blaut 1993: 42, 124, 152.

³⁷ On Ottoman population, which seems to have been both relatively sparse in most of the empire and declining for most of the eighteenth century, see McGowan 1994: 646–57.