Before and Beyond Divergence

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The Politics of Economic Change in China and Europe

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In memoriam
Kenneth L. Sokoloff (1952–2007)
and
Charles Tilly (1929–2008)

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Contents

Preface

Why did China decline between 1400 and 1980, only to reestablish a major presence in the global economy? Why did Europe, a region torn by strife and suffering and economic collapse after the fall of the Roman Empire, become the birthplace of modern economic growth? These two questions are at the forefront of research in economic history. Answering them does not merely satisfy an academic curiosity; it also matters for understanding how the world is changing today.

Around the globe the unprecedented growth of economies during the nineteenth and twentieth centuries depended on innovations based on a model of technological change first developed in Europe. Those technologies were both capital and energy intensive. In the early twenty-first century we have become far more concerned about the natural world than we once were. Technological innovation today aims not only to foster growth but also to curb environmental degradation and ecological disasters. Nevertheless, we remain beholden to the approach to technological change that took root 300 years ago in Europe. We continue to expect the technology of the Industrial Revolution to solve our problems.

At the same time, and in part because of the technological change that has occurred since 1700, we confront political challenges. Unlike the consensus over technology, there has been much less agreement in public discussions about the desired path of change in the spatial scale of polities. Nevertheless, in the past five decades the world has been moving away from European-sized polities (populations in the tens of millions of inhabitants and territories in the hundreds of thousands of square kilometers) and toward polities and economic spaces that are Chinese in scale (with population in the hundreds of millions of citizens and territories in the millions of square kilometers).

Whether it be in the sudden relevance of Brazil, India, China, and Russia to the world economy or in the attempts at forging free trade in Latin America, East Asia, Europe, and North America, we are recognizing the importance of geographic scale for economic growth. At the same time, separatist movements from East Timor to Slovenia demonstrate that political scale does not simply reflect economic or technological imperatives. Moreover, the conflicts in Iraq and Afghanistan remind us that there are radical differences between internal peaceful political competition and civil and international strife. Hence as we debate economic globalization, we confront the importance of international relations. But ours is not some brave new world without precedent. The interactions between economic and political structures are long-standing and well-recognized phenomena in history. This book argues that there is much to be learned about how our world is changing by taking a longer view that examines hundreds of years of history.

Nowhere are the links between the distant past and the present more relevant than in the comparative economic history of China and Europe. Because the Industrial Revolution (the initial period of accelerated technological change) took place in Europe and in particular in Britain, scholars and pundits have fallen victim to the temptation of induction. Most of their reasoning begins with a known difference and constructs a plausible explanation of how that difference might have made China poor and Europe rich. As we shall see, this approach is shallow and often chronologically untenable. To begin with, China was once rich and is rapidly becoming one of the more prosperous economies in the world. We need an explanation of Europe's economic successes that also accounts for China's earlier achievements and more recent rise.

Our book offers a new explanation for the distinctive patterns of economic change in China and Europe. We argue that conventional arguments are either unfounded or can be reduced to the consequences of differences in political scale: although both China and Europe experienced long periods of unification and fragmentation, empire was the norm in China, while division prevailed more often in Europe. For much of Europe's history, it was poor because it was at war. The rise of capital-intensive methods of production in Europe was the unintended consequence of persistent political strife. In contrast, China, which was often peaceful and unified, developed large-scale markets and took advantage of the division of labor. It was only after 1750 that the advantages of machine-based, capital-intensive methods of production became apparent. Before that time the recipes for growth of the Qing emperors were commonsense everywhere: promote the expansion of agriculture, keep taxes low, and do not interfere with internal commerce.

This book also proposes some methodological innovations. Because we are each specialists in one of these two regions of the world, we can make specific comparisons of similar processes. We pose, whenever possible, falsifiable propositions so that our explanations of particular phenomena can be challenged, qualified, or confirmed by future research. We begin with a review of some conventional arguments offered for both China's failures and Europe's successes. Some of these we reject because of their inability to explain known facts. Others we accept but place within a larger framework of explanation that allies price theory and political economy. We contend that this approach provides a more satisfying discussion of the issues and formulates better answers to the big questions than do the conventional narratives. Our collaboration suggests that the alliance of economic theory with expertise in the history of both China and Europe makes for better economic history.

We hope, first, that when readers finish this book, they will understand that political economy matters to economic history in basic ways. Second, we hope that we have demonstrated that the kind of history we explain matters for understanding present practices and future possibilities. Third, the political economy of earlier periods of Chinese and European economic history makes clear the distinction between the intentions of actors and the significance of their actions, including unintended outcomes. Appreciating this distinction can help us better plan our desired futures and be more modest about our expected successes.

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Introduction

Miracles, Myths, and Explanations in Economic History

In the past three decades scholars have reconsidered what set Europe off from the rest of the world as the site of state formation and economic changes that led to modern nation-states and industrialized economies. The themes, of course, are far older. They recur in the inquiries of great social thinkers from Montesquieu and Adam Smith to Karl Marx and Max Weber. Europe's, particularly England's, success moved scholars to assess other societies from a European benchmark. Quite diverse social science scholarship presumed that there was a unique and European-defined path to modernization and prosperity. But in the 1980s doubts about the intrinsic superiority of Western political and economic practices began to creep into public discussions as Japan's rise to prominence as the world's second-largest economy was followed by economic transformations in South Korea, Taiwan, Hong Kong, and Singapore. The political and economic evolution of East Asia raised serious questions about the Western origins of contemporary political and economic ideas and institutions.

Because of China's persistent high rates of economic growth, East Asia has once again become a region of fundamental importance to the contemporary world economy. Rapid growth for thirty years with few legal changes and little political change more generally (toward either decentralization or democratization) also forces us to reconsider the extent to which we can account for the development of China with paradigms deduced from European history. If, in fact, European ideas and institutions are inadequate to explain China's successful growth, can we nevertheless put forward a method of comparison to evaluate the significance of similarities and differences between the two ends of Eurasia?

This book argues that this can and should be done. Rather than focus on the recent past, we consider the process of divergence that preceded the onset of modern economic growth in the eighteenth century. Our premise is that social scientists should integrate the legacies of history into falsifiable theories of historical change. Therefore, our enterprise is both more modest and more ambitious than most. It is more modest because we must focus on specific institutions and develop frameworks for making comparisons across societies and over time. It is more ambitious because at the end of the process we arrive at a sharper understanding of the links between politics and economics in China and Europe.

Ours is not the first attempt at such an analysis. In fact, comparative economic history lies at the core of efforts to understand why some places are prosperous and others are poor. Obviously, Europe and North America were the first places to experience modern economic growth, and they have also provided the heart of the evidence on which models of development have been based. The relative dearth of evidence on other parts of the globe has led comparative economic history to proceed in two steps. First, scholars find some trait that has been associated with success (e.g., representative government, the nuclear family, or Christianity); second, they seek to classify other societies on the basis of how close their institutions are to the favored one. Scholars have proffered many features to explain either Britain's or Europe's early success. These range from broadly cultural to more specifically social, political, and economic factors. Douglass C. North has led the way in stressing the importance of institutions to economic growth. Good institutions provide the rules and the sanctions to encourage productive behavior. People who enjoy secure property rights are more likely to engage in production and trade with others. Thus good government is crucial because only the state can provide laws and courts to make and enforce contracts. These maxims work well to give an account of how and why England succeeded economically in the seventeenth and eighteenth centuries in ways in which Spain or Portugal did not. Variations across Europe in early modern economic development line up quite well with the security of property rights and the effectiveness of law and courts in enforcing claims stated in contracts (North 1981). Because England was the first industrial nation, it makes apparent sense to consider the institutions found in England during the eighteenth and nineteenth centuries important factors in explaining the onset of modern economic growth. England's virtues extend well beyond improvements to production and exchange.

The logic of private property was intimately tied to ideas of "liberties," which elites vocally defended. In England propertied elites were locked into a struggle with the King that culminated his defeat and the rise of Parliament. On the Continent elites also negotiated with their kings and invoked similar political ideas, even if the institutions that gave them voice were not as effective as those forged in England. The political and economic institutions developed in early modern Europe were thus intimately connected to economic outcomes after 1750.

The gains and pitfalls of this approach are clearly in evidence in North's recent work with John Wallis and Barry Weingast, *Violence and Social Orders* (2009). Although they stress the importance of politics for economic performance, they generalize the links between political and economic practices found in European and American history. They identify a grand historical arc leading to modern societies characterized by the replacement of polities with limited access by polities with open access. Limited-access orders (societies where privileged elites limit the use of violence) have elites who capture wealth and power. Open-access orders, in contrast, allow everyone to enjoy economic opportunities and political voice. In an open-access society political and economic competition prevails because the cost of forming either political or economic organizations is small and equal for everyone. At the heart of their analysis are institutions that North has previously referred to as the "rules of the game" (North 1990: 3–4). In this work the authors explain, "Institutions include formal rules, written laws, formal social conventions, informal norms of behavior, and shared beliefs about the world, as well as the means of enforcement" (North et al. 2009: 15). The trajectory of change from limited-access orders to open-access orders is complex and contingent because it involves dramatic changes to the political coalitions that ensure civil peace and to the structure of the economy. In particular, success depends on the emergence of increasing numbers of economic and political organizations that can realize peaceful economic and political competition. Empirically, European history exemplifies the process they are reconstructing, and within Europe, England figures most prominently and positively.

China, our focus for comparison with Europe, presents a case far less easy to fit into their framework. China's experiences of industrialization in the 1980s and early 1990s, for example, did not depend very much on the formal institutions of property rights, contracts, and third-party enforcement by the state, as North's approach would have predicted. Recently, Avner

Greif has rehabilitated informal institutions, showing that they play a critical role in sustaining trade, and arguing that the social structures behind these informal institutions can powerfully affect the path of economic change (Greif 2006). In this book we suggest ways in which quite different institutions can perform similar functions. In fact, many of the arguments deployed in the past fall by the wayside as soon as one realizes that neither China nor Europe is homogeneous. In fact, in most situations before industrialization, European and Chinese individuals confronted a similar menu of institutions. The distribution of the institutions that were used responded to simple economic logic. It was not until much later that the institutional menus began to diverge. In the case of contracts, many of the differences between Chinese and European institutions can be understood in terms of the degree and substance of formality versus informality. Chinese and Europeans deployed both formal and informal institutions; what differed was their relative importance. When economic conditions changed, both societies altered their relative reliance on formal institutions, sometimes increasing it and at other times reducing it. That both societies responded to circumstances encourages us to consider that some early modern Chinese and European economic practices were different simply because of circumstances. Moreover, in this comparison the degree of formality of transactions is not an indicator of efficiency.

Putting institutions into spatial as well as temporal contexts also matters to us. The national units that North, Wallis, and Weingast favor as their units of comparison are nation-states that compete with one another. Their focus is heavily on domestic politics, and war is little more than another form of public spending. This approach is inadequate for Europe because international relations cannot be separated from domestic politics. It is even more inadequate for China because after A.D. 1000 the Middle Kingdom was always larger territorially and demographically than many European polities put together. To this day much of what passes for international relations in Europe is domestic politics in China.

The need to specify geographic units of analysis as part of the research process (rather than simply relying on political boundaries at a point in time) is well understood in social science but is very often ignored for practical reasons. We cannot do so because differences in spatial scale and in the resulting intensity of armed conflict are central to our analysis of China and Europe. Although the division between domestic and international makes sense for many twentieth-century subjects, it is certainly extremely problematic when one is making comparisons between China and Europe in the past. We therefore reevaluate conventional political contrasts of European fragmentation to Chinese unity to identify the advantages of a large spatial unit to economic activity. In this comparative light Europe's competitive political system was extremely costly. The costs that accrued to Europe from fragmentation were quite visible because they involved violent political strife; the advantages were unintended and, indeed, unanticipated.

We do not propose an equally bold but alternative framework. Indeed, it is history and its uncomfortable facts that force us to depart in significant ways from the model proposed by North, Wallis, and Weingast. Rather, our claims are more limited because they are more precise. It may well be that in considering change in Africa, South America, or Southeast Asia, a researcher can take the structure of political institutions as given. If so, the lessons of neither Chinese nor European history would export well. Even that negative finding would be worth establishing. We suspect, however, that the study of long-run economic change is informed everywhere by encompassing "domestic" and "international" political competition.

Our finding that European national units are too limiting a spatial focus brings us to a second major inspiration. Kenneth Pomeranz has led the way in thinking carefully about the interaction between space and economic history. In *The Great Divergence* (2000) Pomeranz draws on frameworks that have long touted Europe's geographic advantages in terms both of intra-European trade and of access to New World resources (E. L. Jones 1981; Wrigley 1988; Allen 2009a). In contrast, China did not have these spatial advantages, and as others have emphasized, it also did not possess a political system that sought maritime expansion (Wallerstein 1974-1989 vol. 1). But his analysis also rests on a much deeper understanding of China and thus offers the richest comparison of China and Europe in the economic history literature.

Pomeranz's argument that in the areas of markets, consumption, and life expectancy China appears strikingly similar to Europe well into the eighteenth century extends a line of inquiry one of us began some years ago (Wong 1997: 9–52). Pomeranz's work has made very clear the challenge of explaining how economies similar in many ways during the eighteenth century ended up diverging dramatically in the nineteenth century. His explanation of economic divergence stresses two sets of reasons for the break between Europe and China, both of which are based on environmental differences. First, the location of coal in Europe closer to cities hungry for energy than was the case in China gave the English, in particular, a critical advantage over the Chinese when timber became scarce. This argument expands on prior work from Wrigley and has received substantial support from Allen (2009a chap. 4). Second, the close proximity of the New World allowed Europeans to avoid the difficulties attendant on increasingly scarce land. Pomeranz's study satisfies historians' desire for a narrative account of the past. At the same time, it engages economists with arguments they recognize (e.g., European economic successes depended on labor-saving possibilities from abundant land and energy). His explanation is temporally focused on critical changes that took place in the late eighteenth and early nineteenth centuries.

We share with Pomeranz a desire to anchor our explanation of economic divergence in time and place even as we search for more explanatory mechanisms that go beyond the circumstantial (location of coal or proximity of new and unexploited resources). But although we find European national units too limiting a spatial focus, we are not arguing for a world perspective on early modern economic history. We believe that the most persuasive explanation for Europe's late eighteenth- and early nineteenth-century transformations is best provided by comparing the politics of economic change within China and Europe in the centuries that preceded their visible economic divergence. When one extends the analysis back in time, political reasons for different conditions in China and Europe come into sharp relief. These differences initially favored China because the empire could and did grow through Smithian principles of specialization and exchange, but the same forces later favored Europe when political fragmentation increased the likelihood of capital using technological and organizational innovations. Our approach stresses comparisons between world regions and how differences between them created an increasing likelihood of dramatic economic change taking place in Europe rather than in China.

Like Pomeranz, we also avoid invoking cultural traits as putative reasons for different economic outcomes in China and Europe. Unlike him, we do observe important differences between China and Europe that have been considered by some to reflect cultural traits peculiar to one or the other world region. For instance, China's eighteenth-century construction of a vast granary system can be considered the emperor's Confucian and paternalistic commitment to the people's subsistence security. Although eighteenth-century China's language of paternalism was no doubt difficult to translate into European languages, this difficulty did not prevent Enlightenment thinkers from identifying it as enlightened despotism (Montesquieu). European rulers also expressed paternalistic aspirations. What they lacked were the capacities to implement their political desires while at the same time pursuing war. European rulers faced political challenges radically different from those confronting an agrarian empire like China. What others have ended up thinking of as cultural differences are in fact better understood, we argue, as products of choices made in response to very different kinds of circumstances. These different circumstances are not simply natural and geographic, like Pomeranz's access to coal or proximity to the New World, but rather are produced socially and politically under diverse ecological and environmental conditions across both China and Europe.

We are interested in explaining economic change in China and Europe according to a common set of economic principles and in observing how the political contexts influence outcomes. We seek to use economic theory to explain variations within China and variations within Europe, as well as variations between them. Price theory figures prominently in our explanation of economic change. Long before the visible divergence of China and Europe after 1750, differences in relative factor prices in China and Europe set in motion incentives to save on labor and invest in capital that figure prominently in Pomeranz's account, as well as in other scholarship on European economic growth. To explain these differences in factor prices, we will stress conditions that are the outcomes, we will argue, of more basic differences in the spatial scale of polities in China and Europe. In this analysis we parallel Robert Allen's recent work on the progress of industrialization in England (2009a). Indeed, Allen puts special emphasis on relatively high wages and low fuel costs in explaining why the technologies we associate with industrialization were developed and deployed in England. But his analysis cannot explain why Europe (and not just England) developed a cadre of skilled workers and techniques that blossomed most fully in Britain. Nor can it explain why wages were high in Britain after 1650 relative to the Continent without recourse to politics. Moreover, an analysis of politics cannot be restricted to comparing England with France or China. It must start by examining differences between two units of similar scale that evolved separately: Europe and China.

Like Pomeranz, we seek to get at the roots of the divergence, but we believe that our approach integrates more social science and history. We do not, however, aim to offer a close historical account of the many particular changes made possible by the differences between China and Europe that Pomeranz emphasizes. What we lose by presenting a less full history, we gain in temporal reach, for it is our claim that in 2050, when China will look much more like Europe economically than it does today, the factors we stress—institutions and political scale—should continue to help guide our exploration of the way polities and economies evolve, whereas the importance of endowments has faded as transport costs have collapsed. After all, China's coastal provinces have been able to boom despite their distance from coal fields and the New World's natural bounties. The interactions between politics and economics remain fundamental to explaining economic changes in the future.

We believe that China and Europe were set on their separate paths long before 1750, when energy or distant land resources became more important. These factors no doubt contributed to the path of economic changes in Europe and may well have exacerbated the relative performance of economies like that of England in the nineteenth century, but they were neither sufficient nor necessary for China's and Europe's economies to diverge. Similarly, economic change in China and Europe was not driven mainly by differences in people's intentions, abilities, or personal circumstances (however much these factors can matter at the individual or local level). From the perspective of what individuals choose, we think that some of the most important factors influencing different likelihoods of economic change in the early modern era were unintended consequences of actions taken for reasons largely unrelated to improving the economy. Finally, we reject the idea that some narrow institutional differences between China and Europe were sufficient to change likelihoods of economic success because, as we show, different institutions can work as near substitutes in different circumstances. To observe that institutions are different does not necessarily mean that one set is always better than another. We will argue that political factors made it increasingly likely that parts of Europe, rather than any parts of China, would make the transition to modern economic growth by the late eighteenth century, irrespective of their relations to the New World or the location of their coal deposits.

As historians, we reject the myth of a contrast between European growth and Chinese stagnation in the centuries preceding the very visible nineteenth-century divergence. The evidence is clear: China did not stagnate economically until the nineteenth century, and even then not all parts of the empire were unable to grow. Analytically, slower growth is fundamentally different from stagnation with all its ghosts of overpopulation and Malthusian economics. Before 1700 similar dynamics of market-based (Smithian) growth worked through different political and economic institutions in China and Europe. The key reasons for economic divergence were political, and these increased the likelihood that modern economic development would take place in Europe before China. European advantages were unintended consequences of political differences with China.

To make our case, we proceed first with some history in Chapter 1 to highlight the striking differences in political scale in Europe and China. However, the same history makes us well aware that China experienced long periods of fragmentation, and that the entity known as the Roman Empire endured for centuries, even if we exclude its Byzantine temporal extension. Unlike most social science scholars, we do not take the differences in political scale as given. As a result our approach to, and resolution of, the problem of the consequences of political scale breaks with conventional interpretations

To answer this problem, we develop a sequence of frameworks. Chapter 2 considers the old Malthusian workhorse of household structure and demography as a possible source of significant institutional differences that could help us account for economic divergence. Kinship relations and population dynamics are implausible sources for divergence. Chapter 3 looks at the institutions enabling economic transactions in China and Europe between the mid-fourteenth and the mid-eighteenth centuries. We find that although the two regions were clearly not alike, their dissimilarities stem from political scale and seem unlikely to have caused economic divergence. Chapter 4 takes us to the realm of manufacturing or craft production, where we find that the urban location of much manufacturing in Europe and its more frequent rural location in China are significant, but not exactly in the ways conventionally argued and for reasons that others have not clearly explained. In Chapter 5 we consider how production and trade are financed and in ways similar to those we use in Chapters 2 and 3 discover institutional differences, but not ones we consider causally crucial to have set China and Europe on separate paths. In Chapter 6 we move to public finance, and here we find differences that cannot be accounted for by conventional contrasts of Chinese and European states in the early modern and modern eras. The differences we discover affect economic change in ways contrary to what previous scholarship has suggested, although the impact on overall likelihoods of economic growth is limited. The variation in public finance institutions, clearly tied to the agendas for rule in an empire versus those prevalent among a set of smaller competing polities, completes our analytical revolution. Europe succeeded despite rather than because of political competition.

In Chapter 7 we return to the history introduced in Chapter 1 and offer our interpretation of why the equilibrium size of polities was so different for so long in China and Europe. Having taken political scale as given and having shown its importance in Chapters 2 through 6, we consider in Chapter 7 some reasons for the differences of spatial scale of polities in China and Europe. We show that the politics of economic change in China and in Europe were quite different and, as early as A.D. 1000, enter into self-reinforcing patterns. The thirteenth reunification of China by Khubilai Khan completed the process of divergence.

We put forward general arguments and exemplify them with Chinese and European data. Not only are our economic arguments intended to account for variations within, as well as between, China and Europe, but they should also prove confirmable or falsifiable by data from other places outside both China and Europe. Similarly, our arguments about the significance of political scale are largely applied to explain one set of outcomes in China and Europe (economic divergence), but in the conclusion we also suggest that they remain relevant to more recent times. Our book is thus intended to be exemplary of an approach to explaining economic similarities and differences in the world of the past that also applies to predicting future changes. Our goal is to identify causal mechanisms that we know work across varied particular conditions, like those suggested by price theory, and to apply them to conditions that we think are best explained by considerations of politics. The exercise is not intrinsically historical or limited to explaining what we already know to have taken place. Indeed, effective explanations of what has happened in the past can help us anticipate future possibilities because many of the social processes at work today have historical roots and antecedents.

Our method of analysis identifies what we find to be persistent myths about China and Europe. It also allows us to reject accounts of what made Europe so special or its growth so miraculous. We pursue explanations of economic change that can account for observable behaviors in China and Europe, and we invite readers to assess the persuasiveness of our analysis and to extend our approach to other times and places. We will count ourselves fortunate if we engage readers seriously enough to evaluate our approach and compare its advantages and limitations with those of other studies of economic change. We will measure our success by subsequent efforts to amass more evidence and formulate research that confirms, qualifies, or undermines our explanations.

1

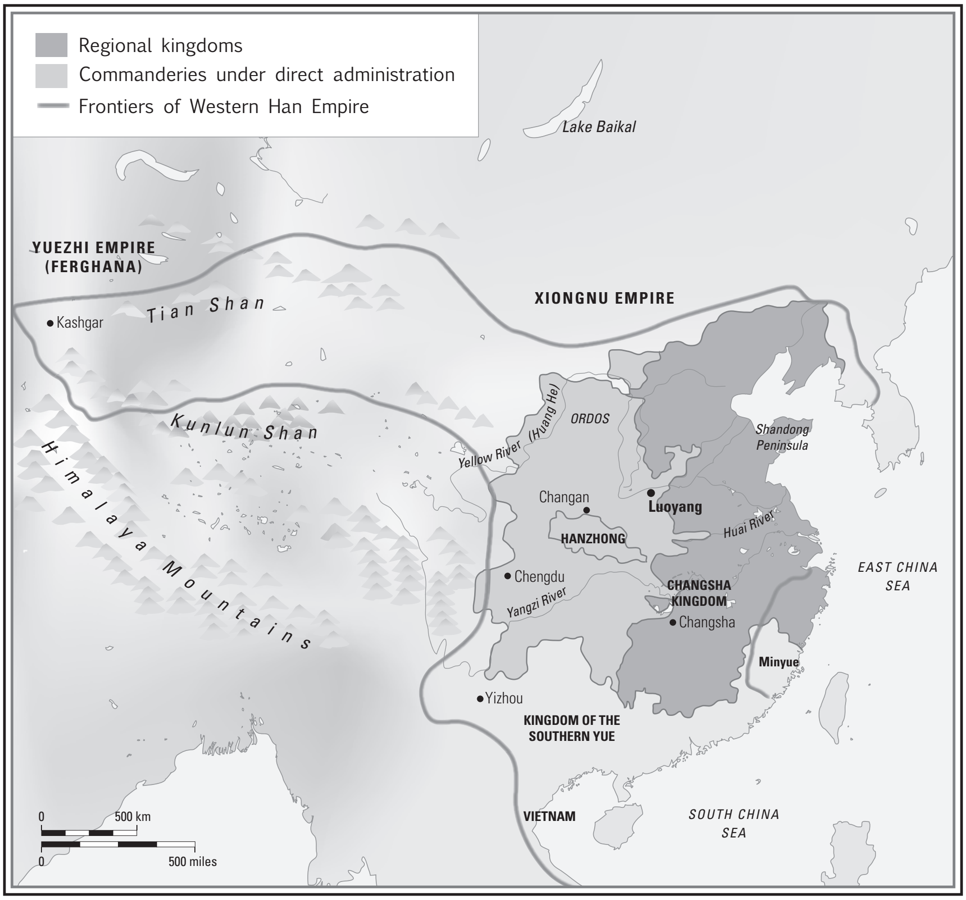
Space and Politics

A thousand years ago China was a vast empire. So it was a hundred years ago. A thousand years ago Europe was politically fragmented. It was still so a hundred years ago. These contrasts might suggest that massive differences in the scale of polities are constants in the histories of these regions. From this perspective it would be easy for us simply to take the divergent political structures as givens and put our energies into tracing their consequences for economic change. We could then appeal to either geographic determinants or cultural constants for the early and persistent Chinese success at creating a large integrated political space (and for Europeans, the failure to do the same). We have decided, however, to avoid this approach because we are aware that this basic political contrast between China and Europe was neither constant nor necessary. As Maps 1.1 and 1.2 make evident, a bit more than 2,000 years ago China and Europe were both large-scale empires. To be sure China was larger (the scale of the maps are slightly different), but as empires Rome and the Han were huge. What is more striking is that five centuries later the polities of China and Europe were both fragmented. Then from 500 to 1000 there were several long episodes of fragmentation in China and repeated attempts to put the Roman Empire back together in Europe. Given this more complicated history, we seek in this chapter to explain how it came to be that by 1279 (the end of the Southern Song) the European political equilibrium involved spatial fragmentation, while the Chinese political equilibrium featured spatial integration. Understanding this basic contrast is critical to our subsequent analysis of the political economies of growth at both ends of Eurasia.

An analysis of the history of China and Europe between 1300 and 1850 is necessary to begin exploring the evolution of each region's political economy and how it mattered for economic growth. Let us briefly consider a well-known example of the economic consequences of political scale to which we will return in Chapter 3. Empires afford greater opportunities for large markets and the kind of growth processes highlighted by Adam Smith than politically fragmented regions, in which, at the very least, war and customs barriers will surely impede trade. The opportunities for Smithian growth in empires can, of course, be undermined when rulers substitute themselves for the market (in particular, by using taxes to secure grain for politically sensitive locations like Rome, Beijing, or Istanbul) or interfere with the labor market (as in Russia's serfdom or Spain's American *encomiendas*) or land (as with the Ottomans' *timar* system for funding the army). But such intrusions into the market are not the peculiar proclivity of empires; other polities did much the same. Instead, we must accept the importance of the interactions between political structures and historical circumstances in shaping economic institutions.

For our purpose of comparing China and Europe, we set aside debates about the definition of *empire*. We will call empires those polities in Europe or China where a central ruler exercised effective authority over a large fraction of a contiguous region. Clearly, this definition is not intended to be general or prescriptive. Any reader familiar with the Ottoman, Hapsburg, or colonial European empires knows that these realms were neither geographically compact nor blessed with great political capacities. Furthermore, unlike the Roman Empire, where, after Caracalla, all free men were citizens, or the Chinese empire, where the Han were by far the dominant ethnic group, most empires have been ruled by a minority population that severely restricted the political rights of other groups. We choose this definition of empire simply because it encapsulates the key contrasts between Europe and China analyzed in this book. Our empire, therefore, is neither an ideal type nor a general phenomenon; it is just a practical appellation for spatially large polities in contrast to far smaller ones.

For most of this book we will trace the direct and indirect impacts of differences in the spatial scale of polities on economic development. We will argue that differences in political scale are critical to understanding the economic divergence between China and Europe, but we will not base these conclusions on the specific details of imperial political structure.



Map 1.1. The Han Empire, 207 B.C.–A.D. 220

Instead, we take the contrasting spatial scales of Chinese and European polities as key factors that both let and led rulers in these regions to develop different political priorities and policies. These policies, in turn, shaped the paths of economic change. Policies in other empires did not closely parallel those in China any more than policies in other fragmented states, such as those of Africa or Southeast Asia, reproduced the practices forged in Europe. Political histories embody much that is historically particular and spatially specific. For our purpose of comparing Chinese and

Map 1.2. The Roman Empire at its greatest extent, second century A.D.

European economies, we need attend only to the political histories of these two regions of the world.

In this chapter we seek to understand why, despite the existence of successful empires in both regions 2,000 years ago, the two political systems diverged to such an extent that 500 ago fragmentation was as stable in Europe as consolidation was in China. In this largely narrative chapter we focus on early processes of empire formation. We also consider the structures of the empires and the challenges they faced. We then examine the processes that after A.D. 200 led to the permanent breakup of the Roman Empire and the repeated reconstruction of the Chinese empire. By the early centuries of the second millennium (the Yuan and Ming dynasties), a political economy had emerged in China that favored the maintenance of a large and integrated political space. Henceforth, dynastic transitions were painful but brief. In Europe a political economy had emerged that overcame the extreme political fragmentation and instability of the early Middle Ages but made the reunification of Europe extremely unlikely.

Rather than seeing the repeated successes of Chinese rulers at maintaining or reconstituting their empire as a direct and simple consequence of the spread of Han culture, we show how Chinese imperial rulers and their official elites learned from their mistakes in order to become more successful at promising and delivering internal order and welfare-enhancing projects. We also argue that in many ways Europe's political elites, from the rise of the Roman republic to the fall of Constantinople, were striving to establish the kind of prosperity that was achieved in China, but they failed. Continued political strife in Europe ensured that rulers who focused simply on public order, access to markets, and infrastructure development would not have survived. Instead, European rulers focused on gathering the resources they needed for war. In the process of raising taxes to pay for warfare, European rulers enshrined many specific concessions to local groups in a plethora of charters. These, in turn, proved to be an enduring brake on the spatial scale of political consolidation in Europe.

As noted earlier, one could attribute the existence of empire in China to a variety of extremely long-standing cultural attitudes or even to endowments. One could do the same for fragmentation in Europe. But such convenient explanations are belied by the fact that empires arise in a variety of settings across world history and well beyond China. Similarly, political fragmentation is not Europe's exclusive attribute. For economists, and many other social scientists as well, the evolution of the size of polities results from a competition between the heterogeneity of demand for public services and economies of scale in the delivery of these services. In our contemporary world scholars focus heavily on such domestic services as welfare, education, and infrastructure (Alesina and Spolaore 2003); in historical settings one must also include the military. The breakdown of the Roman Empire can thus be seen as the result of a collapse in the returns on maintaining a large-scale military, as well as an increase in the heterogeneity of demand for public services due to the influx of populations that had hitherto lived outside the empire. Similarly, the effectiveness of the Great Wall in containing nomadic raiders, as well as the overwhelming demographic size of Han populations in the empire, can be seen as making a large-scale polity easier to maintain in China. But this simple contrast, like many striking historical differences, requires closer analysis. The Great Wall had its parallels under the Roman Empire; such walls were just as much a European innovation as the military techniques that allowed Germanic tribes to defeat the Roman legions or the rise of siege artillery that eliminated petty lords in much of western Europe. A parallel contrast between China and Europe regarding the diversity of cultural identities in Europe and the dominance of Han identity in China requires us to consider more closely the hows and whys of social processes that led Chinese individuals to adhere to a common Han identity rather than privilege some more local identities.

From Early Empire to the Mongol Invasions: China's Memory

China's empire has very old roots, but sustaining and increasing the scale of China as a political entity required overcoming a number of challenges. Central to the establishment of the empire was the ability of the emperor to deploy overwhelming force over long periods of time because, as we all know, empires are generally created through military success. But sustaining the empire was a far more subtle endeavor. Consider the short-lived Qin dynasty. It achieved an imperial unification in 221 B.C., but Qin rulers fell only fourteen years after proclaiming their dynasty. As the standard accounts suggest, the Qin had a strategy of conquest but no imperial strategy of rule, and they fell to popular revolts prompted by their harsh demands for resources and labor from the common people (Bodde 1986).

Like the Qin, the next dynasty (Han) prevailed in warfare among rivals to assume imperial control, but unlike its predecessor, it developed policies of less harsh rule that allowed it to survive for some four centuries. The government opened new agricultural lands and maintained irrigation works that made these lands more productive. The typical rural settlement that the government sought to promote was an unfortified village with some 100 households, each owning its own small amount of land that allowed it to meet its material needs and pay taxes to the government. A society of prosperous small tenants was a persistent ideal of Chinese rulers (Nishijima 1986).

Benevolent rule was not a panacea, because not all Chinese were content to settle with the Han dynasty's rule. The emperors faced such serious challenges from elites that they lost power for fifteen years between A.D. 9

and A.D. 23 to a competitor whose failure to sustain his rule leaves him with the label "usurper" in history books. Although the Han ruling family regained power, the dynasty was unable to extend its authority to the local level. On the contrary, powerful landed elites controlled small areas and over time increased exactions from their peasants, thus sparking social conflicts that erupted into rebellion. Neither these magnates nor the Han dynasty could suppress the peasant uprisings. The social unrest proved fatal for the empire. Indeed, Cao Cao, the general who put down the rebels, took the opportunity to establish his own authority over a third of the empire. This potential founder of a new dynasty could go no further, however, in reconstituting the empire. After Cao Cao died in 220, his son did force the last Han-dynasty emperor to abdicate, but he could not extend his territorial control beyond the third of the empire he had inherited from his father. Three centuries of political division followed (Bielenstein 1986).

Once again the politics of violence are central to understanding this long period of fragmentation. Its causes include pressure from the Xiongnu, a steppe people who began to organize themselves as powerful foes long before the collapse of the Han dynasty. The Xiongnu had earlier responded to Han military efforts to push them further north and west with their own counteroffensive. Later, and to the Han dynasty's dismay, the balance of military strength shifted, and the steppe people gained more territory. Han leaders built walls in an effort to protect their initial territorial gains and then to protect themselves from Xiongnu advances, but nothing the Han dynasty did prevented the Xiongnu and other steppe peoples from becoming important military actors in the competition for control of northern China after the fall of the Han dynasty in 220 (Di Cosmo 2002).

For more than three centuries after 220, no set of leaders emerged either from within the Han's former territories or from the steppes who could build a successor empire. Political fragmentation in northern China proceeded to a very local level in some places, where militias were formed for self-defense and strongmen created their own small realms; other parts of the north were under the control of larger and stronger military rulers. In southern China military rulers ruled small kingdoms and faced two kinds of challenges. Domestically, they confronted powerful families who controlled large amounts of property; at the same time, they competed not only with one another but also with the much stronger northern regimes, which had richer resource bases and strong military traditions. While northern regimes had steppe warriors, southern regimes recruited tribal minorities, convicts, and vagrants (Graff 2002). Southern rulers also aspired to civilian political ideals that had been created under the Han dynasty; these principles helped rule an empire but offered little guidance to those seeking to build a new empire. By coincidence, this is precisely the period when the Roman Empire began to break apart. There, as in China, the same goals of achieving local security and reconstituting empire competed with each other.

Between the early third century and the late sixth century there was no unified empire on the Chinese mainland. In A.D. 400, had people been able to look across Eurasia, they would likely have doubted that an empire would form again either in Europe or in China. Although ethnic Han Chinese dominated demographically, in northern China they intermingled with a diverse array of steppe peoples, some of whom spoke ancient forms of Tibetan or Mongolian, while others spoke Turkic languages. These populations were organized into a series of culturally mixed small kingdoms. Their rulers were equally influenced by the steppe people's martial traditions and Confucian visions of imperial order. In particular, the military practices of steppe armies became the model for rulers of the northern portions of the former Han Empire. Yet whatever the differences that initially separated them, they were all exposed to Chinese political philosophy that affirmed the norm of empire and made recovery of empire the common goal. Although the rulers of the northern kingdoms were of diverse origins, they adopted the history of the Han Empire as a model for the world they had joined and wished to sustain (Tonami and Takeda 1997: 41–160).

To reform the empire required combining these imperial visions with sufficient military might, and it was by no means a foregone conclusion that any set of leaders would emerge who could conquer all their competitors. But such a leader did emerge in the north. Yang Jian built an army able to embark successfully on a march of conquest, first against other leaders in the north and then against southern regimes unable to mount successful defenses; his successes culminated in the formation of the Sui dynasty in 589. But just as in the case of the Qin, a strategy for conquest was not a strategy for rule. Sui leaders demanded too much of their subjects, who funded the building of the Grand Canal connecting the rice-rich south to the governing north and also paid for military adventures that took Sui armies unsuccessfully into the Korean Peninsula (Graff 2002: chap. 7).

The Sui rulers were replaced by a new set of leaders who established their Tang dynasty in 618 and proceeded to rule for nearly three centuries. The Tang focused on strategies for keeping the empire together. In doing so, they emulated and enlarged on the policies of the Han dynasty. For roughly half their period of rule, Tang emperors were successful in simultaneously expanding the empire's borders to the west and putting in place measures to stabilize the living conditions of their peasant subjects. At the same time, they extracted their revenues directly from the peasantry. The Tang worked to balance conformity with Confucian principles, and thus uniformity within the empire, with more practical consideration of the ethnic and cultural diversity of their subjects. The Tang capital of Changan became home to a diverse population of Han Chinese who intermarried with Di, Qiang, Tuoba, and other peoples, each of whom had distinctive languages, food, and clothing. Cultures and bloodlines mixed to create a range of lifestyles that together represented a cosmopolitan empire. In this setting lifestyles and cultural practices were chosen by individuals rather than imposed by genealogy. Imperial reconstruction was aided by the absence of any long period of anarchy like that which followed Europe's "barbarian" invasions. The arts, especially inspired by Buddhist influences from India and central Asia, flourished. Scholars sustained, without major interruptions, their classical traditions. Their Confucian ideas and institutions inspired the formation of a bureaucratic state with lasting political significance. Many of the principal organs of the Tang central government, such as the six boards, provided basic and important models for later Chinese dynasties (Adshead 2004).

The Tang dynasty shared the territorial ambitions of previous dynasties. Its rulers extended and opened the country's borders into central Asia. Like the Han dynasty, the Tang forged a presence to the west in several of the oasis communities along the Silk Road. These connections ensured that a diverse range of cultural influences originating in distant places would continue to enrich elements that later became considered typical of Chinese culture, including the poetry of Li Bo and the tricolored glazes of Tang porcelains. An open and expanding empire not only welcomed new cultural influences but also became ever more vulnerable to military threats, including those posed by some of the very troops who were expected to keep the empire safe from outsiders as the spatial scale of their responsibilities grew larger. Some of the military forces employed by the Tang state to maintain peace were recruited from central Asia and were descendants of the ethnically and culturally mixed groups that formed beyond the northern frontiers of the empire. Anxieties among some Tang court officials regarding the power of these military commanders led the general An Lushan to strike at the capital because he feared that the imperial court might attempt to limit or even undermine his power.

The Tang state was forced to seek strategic alliances with other steppe-region seminomadic military forces to defeat An Lushan's rebellion in 755. As a result, the Tang military had to withdraw from central Asia and accept a much-diminished empire. In the late ninth century domestic unrest among impoverished peasants and powerful local lords led to further troubles for the dynasty. Finally, in the early tenth century, the capital was captured by an enemy general. The fall of Changan marked the beginning of another period of political fragmentation in which rival forces established smaller kingdoms. For a period of nearly a millennium, from the Han to the Tang, Chinese dynasties found the balance between external expansion and internal cohesion difficult to maintain (Graff 2002: chaps. 10–11). As a result, the empire was repeatedly overrun and fragmented. Nevertheless, the empire was re-created later because subsequent rulers and their officials could draw on a growing repertoire of earlier ideas and institutions to which their own innovations offered their successors even more possibilities.

The Song dynasty, established by the general who came to power in the old Tang capital in 960, was no different. Its founder not only took over the remnants of his predecessors but also reconquered other small kingdoms that had emerged in what had previously been the Tang Empire. Nevertheless, the Song dynasty ruled a much smaller realm. It was in this smaller realm that a set of key administrative innovations occurred. These political processes may well have been spurred by the more rapid pace of social and economic change that was occurring at the same time (expansion of urban centers, small-scale tenant farmers producing for the market, improved transportation technologies, and new commercial institutions and merchant networks). Whatever their cause, Song political innovations should be seen as fundamentally new techniques of rule that reduced the transaction costs of internal administration. In particular, the dynasty created a civil service bureaucracy for which many officials were recruited on the basis of passing examinations; bureaucratic sophistication and specialization enlarged the government's capacities to mobilize resources and order local societies. However, domestic successes were undermined by a renewed vulnerability to states formed along the northern border by groups who combined military prowess with some of the bureaucratic institutions of rule developed within the empire. This military weakness ended up forcing Song rulers south, where they maintained a state that became one of several states on the Chinese mainland. Although the Song rulers' reach was not as extensive as that of some of the earlier empires, their retreat south was fortuitous because it also reinforced the dynasty's close connections to the emerging centers of economic and social change (Ihara and Umemura 1997).

Sitting in the Southern Song capital of Hangzhou in 1200, a well-informed observer of the dynasty's domestic conditions and foreign situation might well have been struck by the growing wealth of the country's cities and its increasingly precarious military situation along its northern borders, where a number of states, especially if they joined forces, could threaten the Song government. Without such a coalition or consensus among northern states, our observer, if he or she could think beyond the framework of Chinese dynastic history, might have imagined the possibilities of a multistate system emerging with militarily strong but commercially poor states in the north and a wealthy but militarily limited state in the south. In other words, the persistence of empire across the scale of space that had formed during the Han and Tang empires need not have been replicated thereafter. From the mid-eighth century, when An Lushan's rebellion ended effective central rule under the Tang, until the Mongol conquest of the Chinese mainland in the thirteenth century, there was no unified empire. Our imaginary observer, if he or she were particularly astute, might also note that even with a multistate system consisting of a few large realms (Rossabi 1983), the political equilibrium on the Chinese mainland need not have reached the level of spatial fragmentation found in Europe. After the Mongol conquest neither an imaginary observer nor subsequent historians were likely to recall the possibility that a multistate equilibrium could have become more permanent on the Chinese mainland.

Once again, the consolidation of the empire required a superior military force that could drive out its competitors, destroy them, or incorporate them. The Mongols did all three as part of an even larger enterprise that in the thirteenth century absorbed not only China but also much of central Asia reaching westward toward the Ottoman Empire. The Mongols' conquest of large parts of Asia created the world's largest empire. Their territories were so vast that it was impossible for a single leader to rule them effectively. In 1251 the empire was divided into four separate realms centered in southern Russia, Persia, the Mongol homeland, and China. The last of these was by far the wealthiest and most populous. From the vantage point of Chinese history, it is difficult to exaggerate the importance of the Mongol conquest; without the Mongols, northern and southern China (like the eastern and western Roman empires) might well have gone their separate ways. The Mongols simply destroyed all other would-be military competitors. When their far-flung empire fell apart, and the Mongols in China retreated to the pastures of Mongolia in the face of tremendous domestic unrest, a native Han Chinese dynasty could take over and establish its rule over the sedentary portion of their empire without facing serious territorial threats from strong "barbarian" forces in the north (Twitchett and Franke 1994 vol. 6, chaps. 4–9)

Clearly, the history of empire on the Chinese mainland over the first 1,500 years of imperial rule has a distinctive military rhythm. Empires formed and fell because of military offensives that often came from poorer external foes, but we can also see a pattern of internal processes that made the reorganization and persistence of the empire more likely. These involve the successful spread of Han culture among populations that were initially quite different in ethnicity, language, and social practices. These processes also involved the progressive creation of an effective structure of imperial administration. Thus some core elements of the mature Chinese empire have very old roots. But until the tenth century the empire withered away several times.

The persistence and growth of the Chinese empire and its equally recurring collapse lead to some reconsiderations of political economies of scale. Rulers were regularly tempted to expand their dominions in ways that were unsustainable. Furthermore, they were not always able to adjust their political organization to respond to new challenges (domestic unrest or foreign threats). Time and again we observe changes in internal governance or in the size of the realm that led to serious problems of governance and even the collapse of the dynasty. Over the long run, however, Chinese dynasties proved quite capable of learning elements of rule that made the empire more successful. The history of China before 1350 (from the Qin through the Mongols) can in fact be seen as a long apprenticeship in the strategies of internal rule.

Later dynasties, the Ming and even more the Qing, capitalized on their predecessors' experiences. Successful rule involved finding a balance with respect to the internal governance of the polity and its external relations. Domestically, emperors recognized the value of uniformity within the realm (which eased the flow of information) and a return to letting localities choose more specific institutions (which allowed innovation and specialization and reduced administrative expense). They also had to choose a level of requests for tax revenues from their subjects that was compatible with the services their officials provided. In each of these cases failure to maintain balance led to revolts and lower tax collection. Early on, rulers and their officials seem to have miscalculated repeatedly. In international relations imperial failures shine a bright light on the importance of balance. The Sui collapsed because their excessive appetite for territory brought about a reaction they could not control. Mongol rule of the Chinese mainland lasted less than a century; the Mongols viewed the people of the northern and southern halves of the empire differently and ruled them in institutionally different ways. What they had conquered they could neither transform nor rule for an extended period of time. Like their predecessors, they did promote conditions conducive to gains from trade and supported local governments that provided social goods inspired by Confucian ideas about good governance.

From Rome to Charles V: Europe Skirts Anarchy

From China's history one might well be tempted to build a theory of successful empire based on military innovation and an ideology of rule that equated a ruler's success with his benevolent treatment of his subjects. The history of Europe suggests that these are far from sufficient if empires are to endure over the long run. Indeed, the Roman Empire was built on a military technology that vanquished foe after foe for half a millennium. Its cultural practices spread throughout the Mediterranean world; and its rulers espoused views of administration that are not dramatically different from those inspired by Confucianism. But after A.D. 200 the empire entered into a slow, violent, and inexorable decline. As we discuss later, and others before us have noted (Scheidel 2009; Potter 2004: 530), the Roman Empire shared many similarities in its rise, expansion, and fall with the contemporaneous Qin-Han Empire. In a wider comparison of empires worldwide, the fall of the Roman Empire may or may not be exceptional. What strikes us is that every attempt to put the Roman Empire back together was an utter failure. If we have only the Qin-Han and Roman cases to consider, it is difficult to take one as the norm against which to judge the other unusual. To expand on our two cases, with attention to the kinds of concerns we raise in subsequent chapters, will remain a task for future work by other scholars. For our purpose, as we have already suggested, we wish simply to explain how and why the equilibrium spatial scale of Chinese and European polities ended up being so different.

Had a subject of the Song dynasty found himself visiting Europe in the tenth century, he would likely have been shocked by the parochial nature of polities and statecraft. Although some princes could claim to rule over an area as vast as a Chinese province, few could exercise the same authority as a Chinese ruler over more than a fraction of their territories. Their powers were hemmed in by what Stephan Epstein has aptly called "freedoms," a host of particularistic privileges that limited the prince's capacity to tax, to regulate the economy, and to provide public goods (Epstein 2000). The recipients of these freedoms, whether they were elites or commoners, peasants or urban dwellers, stood ready to revolt should the prince attempt to gain more power. Hence not only did monarchs face the natural consequences of fragmented polities, namely, the threat of conquest, but they also had to meet very serious internal limits on their authority. By Chinese standards, European monarchs were henpecked by their subjects. By almost any standard, the rise of nation-states in Europe is nothing short of a miracle.

Europe had not always been so fractious, and had Chinese travelers managed to make to it Rome around A.D. 100, they would have found a much more familiar polity. Like the Chinese empire, the Roman Empire was born from the fire of war: from Hannibal's invasion of Italy in 218 B.C. to Varus's defeat in A.D. 9, the Roman army was dealt only minor setbacks. Although Varus's loss of three legions in Germany was shameful, it had limited consequences for the empire, and the westward movement of tribes in northwestern Europe was contained for another 400 years. Expansion continued in the east until Trajan's army found itself on the banks of the Tigris. The year A.D. 116 marked the end of conquest, not because the army had found too strong a foe, but because Persia was simply too distant from Rome to keep.

Like China, Rome took its imperial responsibilities seriously. The first was keeping the peace. Although until A.D. 116 the empire grew, effectively pushing its foes farther from Rome, after that time an effective policy of containment prevailed (Goodman 1997: chap. 7). As in China, walls were built. By the standard of the Great Wall, Hadrian's stone barrier across Scotland was short. A much longer wooden palisade was built across Germany and parts of central Europe. Legions were stationed along the border, and by A.D. 150 one of the emperor's most important responsibilities was to secure the revenues to pay the troops; failure at that task easily marked him for death. The other key responsibility was the provision of public goods. Although historians have emphasized the emperor's lavish spending on "bread and circuses" in Rome and later in Constantinople, one should not forget that the cost of these activities is likely to have been quite small relative to the investments in useful infrastructure. Indeed, the political structure produced massive private and public expenses for infrastructure that included roads, as well as urban amenities like paved streets, arenas, theaters, temples, and waterworks. Such investments were particularly noticeable in the western half of the empire because these provinces had been relatively less urbanized before conquest (Goodman 1997: pt. 4). Although many of these costs were borne by elites rather than paid for with tax revenues, these "gifts" were a key element of elite political control (Veyne 1976).

Like the Han dynasty, Roman emperors promoted bureaucratic integration and a common set of cultural beliefs for elites. All around the Mediterranean and throughout western Europe, provinces saw cities mushroom with their triumphal arches, arenas, waterworks, and similar administrative structures. Not only were the men who lived in these cities considered citizens of their hometowns, but soon enough they were also citizens of Rome. In fact, by the time the western empire collapsed, all free men in the empire were citizens, as were many of the leaders of the "barbarian" invaders. One need only tour the remarkable archaeological remains that survive from England to North Africa and from Spain to Turkey to get a sense of the scale of expenditures that went into forging a common identity for the elites of the Roman Empire. At the time of Trajan and Hadrian, the empire was prosperous, powerful relative to its neighbors, and culturally successful because its diverse populations were adopting Roman ways. In short, one could easily surmise that the Roman Empire was following a course parallel to that of China around the shores of the Mediterranean. By the second century A.D. the elites of the empire were drawn from all over the Mediterranean basin, and the emperor could and did dispatch them to any of the provinces making up his domains (Potter 2004: chap. 2).

Success did not last very long. By the reign of Marcus Aurelius the empire was on the defensive. Over the next century the demands of military operations pushed emperors to divide the empire into western and eastern halves. Although Constantine reunited them to some degree in A.D. 324, he also moved the capital of the empire away from Rome, which over time promoted separation. By the time of his reign, war demanded that individuals with considerable authority be in command of large armies both in Asia and in Europe. Because the emperor could personally attend to only one of these two areas, he had to find someone else to lead wherever he was absent. A successful general in the other part of the empire was a natural rival. Less than a century later Rome was sacked (A.D. 410). There is no obvious date for the end of the Roman Empire; its western half ended in 480, but its eastern half endured for another millennium. Over that time the territories of the eastern empire were slowly but surely incorporated into the Ottoman Empire, but this new political entity proved unable to push into Europe north of the Danube or west of the Alps

The Roman Empire, like its Chinese counterpart, faced many interrelated problems. That it endured is a sign that it could overcome them, at least for a time. From a modern perspective two sets of difficulties stand out. The first was the political instability of a regime with no set system of succession; the second was the continued problems with the peoples beyond the borders of the empire. To begin with, a Roman emperor was foremost a military leader. This was particularly so because Caesar's and Augustus's claims to the throne came from their military prowess. Not surprisingly, the legions and the Praetorian Guard had much to do with the selection of emperors. Few emperors died peacefully. Most seem to have met their fate at the hands of angry soldiers or as a result of an internal challenge from a relative or a general; some later emperors died in battle. Succession contests were further heightened because there was no rule that required a single emperor, nor was there a rule that allowed the army as a whole to make a decision about who should be its supreme leader. Instead, as early as Galba (A.D. 69), troops in one region could proclaim an emperor and, if successful either in intimidating the sitting emperor or in battle, see their choice rise to the top of the hierarchy (Potter 2004: chap. 3). The convulsions that marked the deaths of Nero and Commodus, as well as the longer crisis of the third century, were all internal struggles over who should lead the empire. But despite this apparently fatal flaw the empire managed to survive many successions.

The second problem the empire faced came from military conflicts with neighboring peoples. These varied in intensity and structure. Along the eastern border the Romans faced organized polities. In the first two centuries after Augustus, Rome's eastern neighbors were of limited importance; it was Rome that chose where to mark the borders. The legions encountered only limited opposition. But by the reign of Caracalla, the Parthian kingdom could muster a powerful army. It bested the Romans in battle in A.D. 217; the rise of a new dynasty in Persia led to further battles, resulting in the capture of the emperor Valerian in A.D. 259 (Potter 2004: 254–256). Although the conflict in the East was expensive and protracted, like the conflicts over succession, it was a threat that could be contained. In fact, the East remained the more valuable and safer part of the empire even after Valerian's defeat.

It was another external threat—from the north—that eventually proved fatal. Seminomadic populations living on the northern edges of the empire, from the Black Sea to the North Sea, grew in military strength over the course of several centuries. Despite the defeat of Varus (A.D. 9), Rome was able to maintain the advantage over these peoples until a major invasion of Italy in 259; the final blow came a century later after the defeat of Valens at Adrianople in A.D. 378. But the empire did not collapse. Like their Chinese colleagues, Roman emperors tried to co-opt some of the nomadic populations. By A.D. 270 Aurelian and his successors regularly negotiated with Germanic tribes in an attempt to turn enough of them into allies as a means to pacify the frontier. That proved insufficient, and there were attempts to alter the empire's political structure both to meet different armies' needs for imperial leaders and to avoid the civil strife of contested leadership. Commanders were needed both in the West and in the East, and under Diocletian a remarkable political experiment was attempted: the tetrarchy. It involved two senior emperors and two junior emperors. The members of this ruling collegium could provide enough commanders for the troops. At the same it offered the potential to co-opt new members in ways that should have discouraged revolts. By the reign of Constantine the experiment had failed, but it left open the idea that there would be eastern and western emperors.

Meanwhile, in the western reaches of the empire the Roman army enjoyed great advantages that allowed massive territorial expansion into regions that were sparsely populated by Mediterranean standards. As long as the Romans maintained their military advantage (which they did up to Marcus Aurelius), the western legions could police the frontier at low cost, and the ability of the emperor as a military leader was of little consequence. However, the relentless migrations of populations westward did not allow this equilibrium to persist. Indeed, these thinly populated territories could barely feed the legions stationed there, and these provinces could not provide enough soldiers to defend themselves. As a result, the emperor recruited auxiliaries from Germanic tribes and, if they served faithfully, settled them in the empire permanently. Because Rome's frontier blocked migration, the populations nearest the border were under pressure from populations migrating from farther to the east. Under these conditions instability was rife. The frontier populations, like those on the borders of the Chinese empire, were in close contact with Rome, at times serving as allies and at times launching raids into the empire. The Goths, who defeated Valens in 378, were refugees from Hun expansion. The Goths turned against Rome when local administrators failed to uphold their settlement treaty. From then to the sack of Rome, the western empire's decline was extremely rapid. Neither efforts coming from Constantinople nor those of Germanic tribal leaders could reunify the empire.

The collapse of the empire, seen in light of Chinese history, is not surprising. It was based on an idea of overwhelming military force that could not endure forever. What is more surprising, however, is the failure to reconstitute the empire. While a large and integrated polity survived in the East as the Byzantine and later as the Ottoman Empire, in the West the process of political fragmentation proceeded well into the Middle Ages. Even once the process of nation building characteristic of the early modern period was under way, it was territorially unambitious by Roman or Chinese standards. In fact, by the Middle Ages, within Europe, inheritance or marriage was a more likely way to create larger domains than conquest.

Why all this territorial fragmentation in Europe? It is clear that the Great Invasions—the massive population movements that occurred after 259—bear a great deal of responsibility. The invasions involved waves of populations whose demographic importance was locally quite large, and they had dramatic political implications (Bury 1928: 37). Whether the western half of the empire was always thinly settled or whether plagues or political disruptions drove population down is a matter of some debate. What is clear is that the Great Invasions were a process quite different from that of a military elite taking over an agrarian empire. The secular nature of the migration, as well as the serial nature of political change, ensured that dislocation was far more extensive than was the case with invasions of the Chinese mainland before the Mongols. It has often been argued for Europe that these ethnically divided populations had cultural practices and political structures incompatible with the Roman Empire (Bury 1928). The evidence on this point is far from compelling. Indeed, there is ever-increasing evidence that these populations were not fundamentally heterogeneous and that they were far more attuned to Roman culture than has been thought before. For instance, many "barbarian" leaders were also Roman citizens. What is also clear from the new scholarship is that notions of identity on both sides of the frontier were very fluid (Geary 2002). Having breached Roman defenses (or simply having taken over some piece of territory), invaders then faced the need to create the political conditions for lasting control. For example, the leader of a group like the Burgondes in fact faced multiple challenges. First, he had to hold together his "invading" army, for without troops his capacity to hold his territory would evaporate. Second, he had to find ways of ruling the local population that had been ceded to him. Most often this local population was larger than that of his "invading" group, but failure to establish his power would mean that his revenues would vanish. To achieve these two goals, invading leaders initially often chose to integrate themselves into what imperial authority existed. But the trend between A.D. 400 and A.D. 800 was unmistakable—the value of allegiance to some higher authority declined simply because no authority could guarantee protection. The Burgondes, for instance, were absorbed by the Franks. It became clear that to ward off the threat of a new invader or a neighbor, a ruler could rely only on the populations he controlled. The value of political and cultural practices that would have helped rebuild the empire collapsed, while the value of those that promoted local identity and local solidarity rose.

In western Europe the Roman Empire ended, but it endured in the eastern Mediterranean. Indeed, the polity centered on Constantinople (and later Istanbul) proved to be a durable empire. The direct successor of Rome managed to maintain a spatially large polity for several centuries, including some outposts as far away as Spain, Italy, and North Africa. For at least half a millennium after 378, the Byzantine Empire was the wealthiest and most powerful remnant of its Roman predecessor (Ostrogorsky 2002). It was also one of the locations where the knowledge and culture of the empire endured. Like its Song counterpart, however, it proved militarily incapable of reassembling the empire. In time, Constantine's heirs were replaced by Muslim rulers who took over all of the Roman Empire's eastern dominions and made its capital their own; but despite significant advances (at one time into Spain and part of France and more durably into the Balkans), neither Arab nor Turkish caliphs were able to put the Roman Humpty-Dumpty back together. Time and time again their advances were stopped either in the Iberian Peninsula or in the Balkans. Thus by A.D. 800 the former Roman Empire included a large polity in the East and many less stable ones in the West.

Medieval historians of western Europe have an uneasy relationship with the Byzantine Empire, and most prefer to leave it aside as a territory where feudalism did not take root. This is a convenient expedient because it allows us to think of the largest successor polity to the Roman Empire as non-European and thus beyond our concern (Patlagean 2007). From our point of view, ignoring the Byzantine Empire in European history has two consequences that we prefer to avoid. First, it makes the Roman Empire an epiphenomenon; political fragmentation, one might then argue, is the norm at the western end of the Eurasian landmass. The Iberian Peninsula, for instance, was fragmented before Rome took over from Carthage, and it remains fragmented to this day. European polities thus, for political or cultural reasons, can be assumed to be small. Including Byzantium makes this proposition untenable. Second, it reminds us that the political institutions of Rome did not vanish like some Atlantis but remained quite visible in the Byzantine state. Thus even in western Europe the idea of empire endured.

The political institutions of Rome did not fade from memory because they evoked levels of security and prosperity that most Europeans found wanting in their own times. Consider Charlemagne's empire, the last of the large empires before Charles V, as a sort of turning point. Charlemagne succeeded in controlling a swath of territory from France to Germany and from the Netherlands to Italy, although he did not attempt to conquer either England or North Africa, and his Spanish campaign was a failure. Having achieved conquest, he thought to stabilize his polity by having himself crowned by the pope. He also began the process of creating more enduring means for stability, developing a centralized administration intent on providing some public services. But the empire did not outlast him. Upon his death his three sons divided his territories among themselves and soon were at war with one another. The upshot was that the eastern part of his domains down to Italy became known as the Holy Roman Empire, while the western part became France. By this time most political entities throughout Europe (kingdoms, principalities, duchies, bishoprics, and so forth) had no formal allegiance to the emperor.

By the end of the first millennium, one lesson that the rulers of the smaller polities did learn from Charlemagne's heirs was that they should not contribute to fragmentation. Hence the traditional practices of competitive succession or egalitarian claims were replaced by rules of primogeniture. Primogeniture ensured that one kingdom would not be divided into separate parts if a ruler had multiple male heirs, but it did not preclude a ruler of multiple kingdoms from dividing them among his children. Had rulers merged their territories into a single kingdom whenever they acquired new ones, Europe might have taken a very different political path.

Rulers, in fact, did the exact opposite of consolidating their disparate domains by formally recognizing a variety of localized practices in territories they acquired. These practices or customs covered subjects as varied as the nature of real property, relations between landlords and farmers (or lords and peasants), inheritance rules, units of weights and measures, mechanisms for deciding levels of taxation and the means to collect taxes, trade privileges, and more. In fact, late medieval and early modern societies were most often made up of many clusters of such rights for specific groups based on their social status, professional occupation, or place of residence. Until at least the seventeenth century, the trend was for the continued creation of such specific rights and hence for the continuing fragmentation of political space. We can use the ruler whose territorial sway could next rival that of Charlemagne as a case in point. Charles V of Spain was separately the ruler of more than two dozen territories; notably, he was king of Castile, king of Aragon, king of Naples, king of Sicily, archduke of Austria, duke of the Netherlands, and Holy Roman Emperor. Although the crowns of Castile and Aragon had been united under Ferdinand and Isabella, this did not imply that the territories were administered in a unified way, only that the heir to one throne would also inherit the other. Lordship of even the puny kingdom of Aragon involved the separate administration of many territories, of which the most important were Aragon proper, Valencia, the county of Barcelona, and separately the city of the same name.

Why did rulers in Europe accept such formal limits on their powers? To a large extent they were motivated by expediency. European rulers were well aware of the dire consequences of recognizing or granting economic and political rights to specific groups. Nevertheless, they ceded these rights both to reduce the likelihood of revolt and because it was often the only way to secure prompt tax revenue for the Crown. A local population might have conceded much greater authority to its ruler had he offered it the kind of economic and social environment that prevailed either in the heyday of Rome or around 1000 in China. But everyone was well aware that rulers could promise little more than Churchill's blood, toil, tears, and sweat. Indeed, the competition for territory remained keen for centuries, and rulers were eager to participate in this contest. Thus promises of using tax revenues for local prosperity would surely ring hollow. Instead, local populations wisely insisted on preserving their local privileges to limit their rulers' military ambitions. Certainly, a ruler who desired to extend his domain farther was unlikely to remove tolls or tariffs between two of his territories. Doing so would have reduced his revenues at the very time at which he needed them most. The political economies of empire and fragmented polities, as exemplified by China and Europe, will prove, as we demonstrate in subsequent chapters, to be significantly different.

Previous studies have argued that the size of polities in China and Europe shaped the path of economic change. For them, political competition among European states had positive economic consequences, and China's empire delivered stagnation. We will suggest that the costs of such competition were, in fact, heavy. Moreover, the advantages obtained from political competition and war making in Europe were indirect and unintended. Up to the eighteenth century, the direct and deliberate positive consequences of empire in China far exceeded the indirect and unintended benefits of political competition in other world regions. Many of the economic contrasts between China and Europe we develop in succeeding chapters depend on the different spatial scales of states in these two regions of the world. We will also discover that not all economic and institutional differences are equally important; some putatively economically significant differences between China and Europe historically did not in fact have clear consequences, while other assumed differences turn out to be not as stark as previously portrayed.

Our first chapter has addressed the historical reasons for the emergence of durable empire in China and the contrasting political equilibrium of small competitive states in Europe. Military factors and domestic political change clearly shaped the spatial scales of polities across China and Europe.

Up to the reign of Charles V of Spain, Europe had made little impact on the world, and China had had little interest in the western end of the Eurasian landmass. To the extent that Chinese and Europeans shared a common experience, it involved their difficulties in dealing with the steppe people. The thirteenth-century Mongols were the most formidable of these pan-Eurasia invaders. Their leader, Tamerlane (1336–1405), was the last great challenger to sedentary rulers in both the East and the West. Once it became clear that no military forces from the steppes would be able to take over both China and Europe, their political histories became largely unconnected for the next four centuries, and their economic histories were powered by often-similar but usually separate dynamics. In the next five chapters we explore the consequences of differences in political space for economic change in the era after Tamerlane. These differences help us provide an account of what the Chinese and European economies shared, how they diverged in the modern era, and why differences in the spatial scale of polities in China and Europe still matter to their economies today.

7

Political Economies of Growth, 1500–1950

We have seen in previous chapters that economic growth due to gains from trade was more easily achieved in China than in Europe during the early modern era. Despite differences among the kinds of economic institutions most typical of China and those most typical of Europe, we can find no evidence that these differences made for significantly different likelihoods of economic growth in one rather than the other. Nor do differences in the representative nature of political institutions play the often-anticipated role of serving economic growth. But it is easy to be suspicious that these claims must somehow be specious, for surely the economic and political practices preceding the Industrial Revolution must have influenced the manifest divergence between the economic trajectories of nineteenth-century China and Europe. We do not, however, claim that different practices preceding the Industrial Revolution had no significance for nineteenth-century patterns of economic growth. Rather, we suggest that some of the most important differences between China and Europe that mattered for nineteenth-century economic growth emerged several centuries before that time. In particular the political structures in place in the period 1650 to 1800 had already been long standing. As Map 7.1 shows, China under the Qing was a large integrated political space as it had been under the Han and much like today's People's Republic. Europe in the mid-eighteenth century, as Map 7.2 shows, was severely fragmented, less than it had been in the Middle Ages and more so than today. Nevertheless at all of these times Europe has been less integrated than China. Unlike many previous observers, we do not find that these differences were due either to a particular cultural genius of Europeans or to political and economic circumstances that endowed them with advantages from a very early time. In this chapter we argue that early modern Chinese political economy was more explicitly intended to foster economic growth than European political economies. Moreover, Chinese officials succeeded in part because they had created political peace and social stability for more people across far more territory than their European counterparts could realistically imagine, let alone pursue. At this point the nineteenth-century economic divergence is not merely a European success story and a story of Chinese failure to emulate those successes. It is also a story of the Chinese loss of an earlier era of political economy, in part due to the political challenges created by Western powers and Japan. This history may seem very distant from a twenty-first century that has witnessed an apparently relentless expansion of the Chinese economy, but the abilities of the Chinese state to foster conditions that have made this growth possible are in part explained by economic history.

Late Empire: Foreigners, Natives, and Chinese Strategies of Rule

While European princes, as well as rulers in the Islamic political world, were being advised about how to undo their princely rivals and suppress internal challengers, many Chinese officials were reading a text that was very different in substance and spirit from Machiavelli's *The Prince.* They studied the *Supplement to the Exposition on the Great Learning,* by the fifteenth-century Confucian scholar Qiu Jun, a work that combined descriptions of statecraft policies popular in earlier centuries with the author's own commentaries. Widely distributed after Qiu Jun presented it to the emperor, who ordered the text to be printed and disseminated across the empire, this work became a ready reference for officials considering a variety of statecraft subjects, including water control, grain storage, tax policy, and local administration of minority populations, among many others. The tradition of statecraft continued to evolve under the Qing emperors and their officials who promoted material well-being and social stability through their economic policies. They learned what the practice of benevolent rule across an agrarian empire could concretely mean. From the vantage point of the empire's sedentary population alive in the late seventeenth and eighteenth centuries, people who accounted for well over 90% of the empire's total, the Manchu emperors advocated and implemented an agenda for managing

Map 7.1. The Qing Empire

society that was far more energetic and ambitious than that of their Ming predecessors.

The emperor's commitment to neo-Confucian strategies of rule was by itself inadequate to create the conditions for Ming- and Qing-dynasty successes at ruling the agrarian empire. For these strategies to make a differ-

Map 7.2. Europe in 1721, after the treaties of Utrecht and Nystad

ence, elites and commoners alike also had to consider neo-Confucian priorities and policies expressed in works like the *Supplement* sensible and beneficial. At a minimum they had to believe that their interests were better served within this political order than by undertaking the costs of exiting the empire. We do not mean to suggest that people were constantly evaluating the relative benefits and costs of staying within the empire in late imperial times, but simply that if people had been actively dissatisfied, they would have sought to reformulate their relationship to the state through some combination of voice and exit; instead, they remained loyal for the most part. Why? Because most subjects had little incentive to bear the costs of inventing an alternative way of organizing political order outside empire when they enjoyed considerable social space where the state weighed lightly on them and they could enjoy its material benefits.

Given that both elites and commoners accepted imperial forms of rule, how did neo-Confucian strategies of social order deflect and defuse the challenges that strained and often fragmented other empires? First, the core of the social elite was composed of literati educated to seek official positions from which they gained their social status. Second, unlike either the early empire of the Han or the middle empire of the Tang, the late empire of the Ming and Qing dynasties did not have to confront great magnate families. Third, commercial elites were not pressed so hard for resources that they considered mounting major opposition to the center. Landed and commercial elites were instead effectively delegated the tasks of maintaining social order by the bureaucracy, and as long as no serious troubles emerged, they were largely left alone by the state. Elite interests were effectively served by a partnership with officials.

For their part, merchant elites specifically benefited from state policies that facilitated long-distance trade, and their riches (unlike the wealth of Italian and German merchants, which was chronically vulnerable to predations from princes anxious for resources) could usually be protected from extraordinary state exactions. The state could keep its direct costs of governing the empire relatively low because it depended on local elites to shoulder much of the burden of formulating and maintaining institutions of local order, such as granaries and schools, as well as ensuring the upkeep of roads, bridges, and temples. Social order was the joint product of official and elite efforts (Wong 1997: 105–126). When natural disasters or social problems emerged, officials, elites, and common people often expected that joint efforts would solve the crises, and when they did not think that this was likely, they did not imagine that some exit strategy from empire would improve their condition. The late Ming dynasty survived the kinds of domestic threats from regional power holders that undermined the effectiveness of other empires. When it lost control, its ideology and institutions of rule for society were largely adopted by the Manchus who succeeded it.

The Manchu-led Qing dynasty that came to power in 1644 expanded the empire's borders once again into central Asia. Unlike the Mongols, the Manchus largely adopted the bureaucratic institutions of civilian rule to administer the vast peasant population of the empire. They made changes designed to improve communications, bureaucratic effectiveness, and, in particular, responsiveness to imperial orders, but the basic institutional template and ideological justifications of rule followed the principles and policies of earlier rulers of empires.[1] As we look at the role of the Manchus from the vantage point of the role of outsiders either promoting the persistence or hastening the destruction of empire, we can appreciate the degree to which Manchu successes across peasant China depended on their integration into an ongoing bureaucratic structure of rule. The eighteenth-century imperial anxieties about Manchus losing their martial spirit and becoming assimilated into Han Chinese culture reflect the considerable assimilation they underwent (Elliott 2001). The differences between the Manchus and the Han Chinese, important as specialists have shown them to be, remain less stark than those between Mongols and Chinese a few centuries earlier. The political similarities and connections between Manchus and Han are even more apparent, and for us crucial, when we put this Manchu-Han relationship into a common frame of reference with the relationship between imperial Rome and its “barbarians.” In contrast to the Western situation where large numbers of distinct groups invaded portions of the Roman Empire, none of whom were able either to ally with or to defeat the others, outsiders in Chinese history were smaller in number relative to those already living under imperial rule. By the time the Manchus appeared on the scene, a demographically small group from beyond the empire had available a repertoire of policies that created benefits for both the rulers of empire and their subjects.

The political economy of the eighteenth-century state generally followed principles articulated in the previous centuries, but it committed officials to a greater degree of intervention and activism for longer periods of time than had been typical under the Ming dynasty. During the eighteenth century domestic commercial taxes were deliberately kept minimal. Merchants largely regulated local markets on their own. For its part, the state depended on markets not only to purchase the commodities consumed by the imperial household and the bureaucracy, but also to purchase the construction materials and hire the labor needed to build and repair government buildings. More significantly for the population, the state also bought grain in times of dearth to transport to places that were suffering the greatest subsistence needs. These features of the state’s political economy contributed to the expansion of long-distance trade and the importance of informal institutions addressed in Chapter 3. The state also encouraged the diffusion of handicraft production (which we evaluated in Chapter 4) throughout China. Some officials disseminated information about craft technologies as they moved from post to post across the empire (Wong 1999). As we saw in Chapter 6, the state more generally chose not to tax the craft output of agrarian households, limiting itself to taxing the household's agricultural output. Indeed, it would have been far more costly to tax widely dispersed rural craft production than to tax urban-based production in larger workshops, which makes the state's decision to forgo these taxes more understandable than if the crafts had been concentrated in fewer locations.

The state's role in private and public finance also promoted economic growth. The private credit market we examined in Chapter 5 was largely informal, and the state played only a small role in regulating its activities. Chinese business was able to develop informal mechanisms to finance production and distribution without much recourse to government intervention. The costs of doing business were therefore lower than they would have been had more formal institutions been established. In public finance, as we showed in Chapter 6, the eighteenth-century Qing state invested far more in infrastructure (e.g., water control for production and transport) than was possible in Europe in the same period. The state's social spending overall was higher, and it stimulated and guided local government and elites to fund granaries, schools, road and temple repairs, and social surveillance against crime in their areas.

The contrasting spatial scales of the Chinese empire and European states offers a splendid illustration that the trade-offs offered by the theory of the firm are relevant to understanding the importance of scale in political economy. Firm size (in total capital and employment or in the number of tasks that it takes on) is variable as technology changes, and a manager who wishes to expand his or her firm must develop techniques of administration that make internal management superior to that of the market. The Ming chose a smaller empire, but one in which the population was overwhelmingly sedentary and thus receptive to the value of peace and internal trade. They did so not because they could not muster the might necessary to recover part of the western lands held by precursor dynasties. On the contrary, they limited their spatial ambitions to focus their resources on internal growth. The Qing dynasty, building on that effort, was able simultaneously to expand the set of services it rendered to its peasant population and to bring the empire to its largest scale. Its successful strategy of rule provided the resources for expansion. How different was the experience of state formation in Europe?

State Formation in Europe from Charles V to Napoleon

Machiavelli's *The Prince* was a guide for rulers who faced enemies from all sides. As Machiavelli saw it, the ambitious prince wanted to enhance the size of his realm at the same time as he wanted to avoid being beholden to his subjects. Pursuing his ambitions implied defeating his external enemies while holding the rebellious tendencies of his subjects in check. That *The Prince* was the main secular guide to rulers' behavior reminds us of the long history of European political strife. European states could not be built from a core relationship between subjects and rulers focused on low taxes and public goods. Instead, they had to be built in struggles that included conflicts between dynasties, as well as violent confrontations between subjects and rulers.

Fragmentation in Europe ended haltingly, but by 1300 the trend toward ever-smaller polities that had begun with the collapse of the Roman Empire had reversed, and states were generally growing (Tilly 1990). One reason for this is that by then the external challenges to Europe were limited geographically to the formidable threats represented by the Ottomans. From Spain to Poland, Europe was expanding through use of a military technology that was not only radically different from that of the Roman legions but also unlike what had prevailed at the end of the first millennium (Hoffman Forthcoming). On the defensive side the importance of fortifications made it possible for relatively small states (like the Low Countries) to hold off larger ones. But fortifications required resources, and expenses did not stop there. By 1300 feudal levies of troops had long been replaced by soldiers who had to be paid (whether they were foreign mercenaries or domestically levied troops like the Spanish Tercios). By 1400 artillery trains added to the cost of war. Only states with large treasuries could continue to compete in Europe's political contests. Such large treasuries were possessed either by small but very prosperous polities, like Venice or Florence, or by very large ones, like France or Castile. Although many independent polities disappeared, there were serious obstacles to the expansion of states, most notably the general tendency of alliances to form against the major power of the time. Throughout the centuries between Crécy (1346) and Waterloo (1815), international conflict was perhaps only somewhat less pervasive than in the preceding millennium. The persistence of war had several consequences. One of these was the development of a military infrastructure that by the end of the sixteenth century had enabled Europe to extend its political ambitions to many locales across the globe. The other is that the demands of warfare in Europe would make the development of Chinese like-strategies of rule simply impossible before 1815 (Parker 1996).

In 1516 Charles Hapsburg ascended the throne of Spain. This is none other than the Charles V we have already met in Chapter 1. Charles was the focal point of an extraordinary dynastic convergence (Lynch [1964] 1991 Chap 1). Through each of his grandparents he inherited a formerly sovereign entity. Along with the crown of Spain on his head, Charles also was ruler of major parts of the Italian Peninsula, Austria and its dominions, and the Low Countries. Not content with these, he had himself elected emperor of the Holy Roman Empire as well. Soon his domains included most of Latin America after the conquests led by Hernán Cortés and Francisco Pizarro. Consequently, by the time of his abdication in 1556 he was the ruler of an empire of nearly Chinese proportions and one that, even though it did not include France, vastly exceeded the dominions of Charlemagne or Napoleon. But as had been true for Trajan before him, Charles V's capacity to acquire territory exceeded his capacity to rule it. When he abdicated, he split the empire, carving out the imperial crown and the Austrian dominions for his younger brother and leaving the rest to his son Philip II.

Charles V's European empire was definitely un-Chinese and, for that matter, un-Roman.[2] Obviously it was far from compact, and it was not the result of some persistent expansion based on one group's military prowess over another. Furthermore, although Charles's legitimacy as the ruler of these lands was unquestioned, the extent of his authority in any one of his domains was a complicated matter. Charles was hemmed in by the liberties his forebears had granted to the different regions they had acquired, and some of these were quite extensive. More important still, the administration of each region was sui generis, and changing any of the key institutions in a locality required the assent of a local representative body, the presence of the monarch, or both. Because many of his territories were quite small, Charles had much greater difficulty ruling his domains than his Chinese counterparts did. Subjects in Castile fell under a relatively uniform set of institutions, but they inhabited only about two-thirds of the polity we now call Spain. In the Netherlands there were nearly a dozen separate provinces or territories where Charles's authority varied. Moreover, although Castilians and Catalonians may have recognized more connections among themselves than they did with the king's subjects in Naples or Vienna, they were far more likely to emphasize their differences and to take political action to maintain these differences. Hence Charles V's efforts at creating coherence in his European domains failed; his son Philip II continued the effort, only to spark the Dutch revolt.

At the cost of a digression, it is worth noting that European rulers' inability to gain more riches and territory at one another's expense propelled some of them to go overseas. In the Americas large expanses of land were claimed for European crowns and for a time provided massive wealth for the Spanish Crown. Trade with Asia was organized around monopolies that were supposed to make regular contributions to the state's coffers as merchants maneuvered to gain positions at new and old ports from which they could purchase precious spices and luxury goods. In both instances European states built what historians have labeled *empire.* These territorial and commercial expansions do not meet our criteria for empire in terms of population and territory. Indeed, these empires were either purely commercial or heavily extractive—in no case was there any effort to fold newly gained territory into a larger, homogeneous whole. This fragmented strategy persisted into the colonial rush of the nineteenth century. Thus there is a fundamental institutional contrast between Chinese and European empires.

Nowhere is this more evident than in the deep concern of Charles V's subjects for their local privileges, which meant that in Europe larger polities did not realize many of the gains that one might expect (Lynch ([1964] 1991, Elliott 1986). Indeed, these larger territories were themselves institutionally fragmented and constantly at war. From a Chinese point of view, Charles's European dominions were small and not very well integrated. To promote gains from trade, a peaceful empire was more advantageous than smaller war-making states could be. In this matter, the difference between the Hapsburg empires and Britain was in fact less than that between these empires and China. Neither Charles nor his successor could sustain a program of institutional harmonization because of the demands of war. Europe remained a competitive political system. As we saw in preceding chapters, the economic advantages to be realized from competing states came late and were unintended. The dominant impression of political change from 1300 to 1700 must be one of states fighting. To a lesser extent, polity size was growing, but the rise of more uniform institutions came later—after the onset of the economic transformation of the Industrial Revolution.

Europe's Industrialization and Imperialism: State Transformations and Economic Growth

Social scientists often associate the conditions conducive to economic growth with those that enable democratic political regimes. Individuals who enjoy liberties and freedoms typically also benefit from secure property rights. Those places in Europe that developed economically were also those that formulated democratic political institutions. The rise of representative government constitutes a remarkable break in its political history not only for Europe but for the world. Nevertheless, rather than the Glorious Revolution, it was the French Revolution that was a watershed for European political structures (Bogart et al. 2009). In the eighteenth century no European country followed Britain's lead of parliamentary monarchy, just as in the seventeenth century no country had followed the Netherlands by establishing a federal republic. To a large extent such regimes were anathema to Europe's rulers. In the quarter century following the French Revolution, however, Europe experienced a massive political transformation—the creation of unified parliamentary monarchies in France and the Netherlands, a significant reduction in the number of independent entities in Germany and Italy, the creation of a unified authoritarian monarchy in Prussia, and attempts at constitutional monarchies in Spain and Portugal. Napoleon's attempt to forge a large political entity failed, but many of the changes he initiated endured. Most strikingly, none of the restored ruling houses in France, the Netherlands, or Italy gave up on fiscal centralization. Moreover, these changes spread; for instance, when Belgium became independent in 1830, it immediately adopted a form of representative government.[3]

The transformation brought on by the French Revolution has typically received less attention than the rise of democracy in the later nineteenth century for several reasons. Most important, this transformation was quite likely to create or bolster conservative or authoritarian regimes (as it did in Prussia, the Netherlands, the Austrian Empire, and Russia). As a result, although this transformation seems to have been a complement to the surge in infrastructure investment that spread throughout Europe after the demise

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of Napoleon, it did not lead to the appealing equation of liberalization and growth. But from the point of view of our comparison this is the period when European states begin to look Chinese. Rulers in Europe demonstrated a new emphasis on efficient governance and providing prosperity. That said, it is remarkable how little effect this major political innovation had on fragmentation in Europe. It is true that the number of independent states continued to fall between 1789 and 1815 because Napoleon and the Congress of Vienna redrew the boundaries of Europe. Overall, however, the most radical attempt at reducing fragmentation—Napoleon's gambit to create a single state out of territories in much of western Europe—simply failed. Although many populations might have welcomed the reforms that French conquest brought in its wake, they did not want to be ruled by Frenchmen. Local elites were sometimes divided about reform, but they were always opposed to the elimination of their power and to foreign overlords.

The French Revolution and the regimes created in its wake typically downplayed regional identities in favor of national ones, but these new identities were no more favorable to the creation of a common political space than the older provincial ones. From a Chinese perspective, the partial replacement of Breton identities with French identities, for example, was not much of a step toward creating a European identity.

European history up to the mid-nineteenth century makes it abundantly clear that the fragmentation of the Roman Empire had tremendous consequences for this end of Eurasia. Long after the Great Invasions had passed, and long after Europe had become an exporter of military violence, political processes remained mired in a local logic. There were economic, political, and military reasons for states to grow, and to some extent they did. Territorial growth, however, was painful and slow. After 1815, when Napoleon's defeat closed the path to a unified Europe, the surviving states could enjoy the benefits of a significant reduction of the power of subnational institutions. They also tried to reduce the economic costs of political fragmentation through trade and monetary negotiations. They articulated a political logic of balance of power meant to acknowledge competition among themselves while reining in any unbounded pursuit of power at one another's expense. These efforts extended and elaborated on the political sensibilities formulated in the mid-seventeenth-century Treaty of Westphalia. Had Europeans been able to do more politically, they could have achieved a larger economic space with lower transaction costs and greater gains from trade. Clearly, they believed that such union was not feasible. Thus the approach to regional economic institutions in Europe that bypasses the problem of political union has its roots in the nineteenth century. Clearly, building a large economic space from the bottom up is different than building it from the top down.

Beyond their own fragmented region, Europeans grasped the desirability of pursuing power and wealth internationally. Consequently, at the same time at which the domestic regimes of European countries developed new political institutions and fashioned new political ideologies, some of them embarked on new overseas adventures. During the second half of the nineteenth century much of the world that had not already been settled by white Europeans became formal colonies of European powers. The military expertise they had gained in a dozen centuries of internal warfare allowed Europeans to exploit the labor and raw materials available in many Asian and African areas. More generally, industrialization fostered an international division of labor within which industrial capital concentrated in western Europe and North America bought raw materials and attracted labor from other parts of the world (Findlay and O'Rourke 2007: Chap 7). The British promoted free trade as a virtuous and efficient way to benefit people and their economies. The degree to which these economic principles dominated international exchange remains a topic of disagreement. To be sure, free trade and an international division of labor based on comparative advantage and natural-resource endowments prove to be powerful engines of growth. The European pursuit of these economic possibilities grew out of an early modern era in which Europeans for the most part competed with one another overseas rather than cooperated with one another within Europe.

Nineteenth-century British domination of the world had more than four centuries of European maritime exploration and conquest as its historical background. The ability of the British and other Europeans to exploit economically their international political position depended on technological and institutional changes more likely to occur in Europe than in China or anywhere else. War making drew entrepreneurs seeking to defend their capital into cities where relative prices ended up favoring capital investments, agglomeration favored growth, and certain technologies improved on advances made in military pursuits. In previous chapters we noted what we consider the key reasons for economic growth in China and Europe in the early modern era. We have argued that China was not obviously or certainly failing to grow as Europe did. But key differences in relative factor prices, which we explain through the impact of political differences on economic decision making, explain the far higher likelihood of an industrial revolution occurring in parts of Europe than anywhere in China. Once this economic transformation was under way, it no longer makes sense for us simply to compare the dynamics of economic growth in China and in Europe. We must also evaluate the significance of European impacts on China. It is possible that after the Middle Kingdom was forced to enter the global economy, politics either prevented it from doing so on its own terms or made it much more difficult for such a transformation to succeed.

After 1850 we no longer can analyze China and Europe as two large and important regions independently. Indeed, it is not obvious that the dynamics of political and economic change in one region can be kept separate from changes occurring in the other region. In the European case the influence of China was probably limited, although relations with the Americas and other parts of the globe were of considerable importance (Findlay and O'Rourke 2007: 402–424). In the Chinese case the major focus of politics and of economics could not simply be domestic. Even though China did not become a formal colony of any foreign power in the nineteenth century, the political and economic influence of foreign entrepreneurs and officials was huge. The growing presence of Europeans in nineteenth-century China was accompanied by increasing signs of a weakening central government unable to meet the twin challenges of maintaining the virtues of eighteenth-century statecraft and fashioning a new kind of state power able to manage new kinds of foreign relations. For a century after 1850 the Chinese government failed to maintain itself, let alone provide order across the country.[4] Nonetheless, China emerged after 1949 as a sovereign nation that comprised almost all the territories previously ruled by the Manchus. The Chinese accomplished this feat by asserting the primacy of a unitary state in which authority was vested in the central government. As a consequence, the Chinese were in a position to benefit from the economic advantages of spatial scale once again and in ways that Europeans began to approach concretely only after World War II.

Chinese Empire: Limitations on Growth in a World of European Dominance

For two millennia starting with the Qin, the Chinese economic growth that we have examined in earlier chapters of this book was possible because of the country's imperial scale. During this time the state's political economy helped support the institutional practices and relative prices that favored an agrarian and rural economy. But such strategies proved increasingly difficult to sustain as foreign political pressures created new demands on the Chinese state. We do not believe that their ultimate failure in 1911 can be attributed to the limitations of the earlier dynamics of growth. Instead, the economic advantages of empire were lost in the nineteenth century when the demands of managing both domestic space and foreign relations became increasingly expensive and difficult.

The Chinese political economy of promoting trade across a peaceful empire and supplying social services and goods with relatively modest taxation was no longer feasible in the nineteenth century. Chinese leaders had to invest in new political institutions and economic efforts designed to strengthen the state. They had to raise more taxes and were able to supply their subjects with fewer public goods. Around midcentury the Chinese state began raising taxes on commerce. By the 1870s and 1880s it appeared that the state was coping adequately with its new political agenda. A crucial turning point came in 1895 when the Qing emperor was defeated by Meiji Japan in a naval war waged around the Korean Peninsula. The victorious Japanese imposed a punishing indemnity. To pay the Japanese, the Chinese government was forced to increase its taxes and face growing domestic dissatisfaction. The Qing state confronted an even more difficult challenge after an eight-nation army marched on the capital in 1900 to demand that the Qing state put down the violence of the Boxer movement against foreign Christians. The ensuing indemnity equaled roughly three times the total annual revenue of the government. The only way even to attempt to meet the foreigners' demands was to reorient all government revenues toward that one goal.

It is little wonder that China's eighteenth-century focus on prosperity based on an agrarian rural economy lost pertinence. After 1911 and the fall of the Qing dynasty, such a political economy became completely irrelevant because the Chinese mainland was politically fragmented for most of the years preceding the founding of the People's Republic in 1949.

Even in the decade between 1927 and 1937 when the Nationalists claimed to rule China, they could collect agricultural taxes from only five provinces. Their rule over many areas depended on understandings with military warlords, and they could claim sovereignty in name only over other parts of the former Qing Empire, such as Tibet. Taiwan, which had been settled by Chinese immigrants centuries earlier and had been incorporated administratively by the eighteenth-century state, was no longer a part of China but a formal colony of the Japanese. More ominously, the Japanese established a puppet state in the northeastern area of Manchuria, taking away from Chinese rule the Manchu homeland to which millions of Han Chinese had migrated in the nineteenth century. Together, these changes meant that China faced a very uncertain future in the 1930s.

Political competition and military conflict were chronic features of Republican-era China. The kinds of conditions fostering economic growth in the empire that we have examined in earlier chapters of this book were largely lacking. Instead, political conditions in China resembled more closely the war-making competition and chronic fiscal shortfalls of early modern Europe. If European history had supplied all the lessons, we could have expected the Chinese mainland to become a set of states in competition with one another. Chinese political development could be presented as a late copy of dynamics that had worked themselves out in Europe centuries before. In this light the Chinese phase of political competition would have been set off by imperialism more than by any other factor. Although foreigners' interventions in nineteenth-century China caused severe political dislocation, there was no attempt to control any significant part of the empire until 1895 when Taiwan came under Japanese rule. In the absence of colonization we mght expect competitive political dynamics similar to those in early modern Europe to have played a decisive role in early twentieth-century China. From a European perspective, China might have remained politically fragmented because so many empires broke apart. But if we generalize from European history or put the Chinese empire into a common category with other landed empires, we simply fail to explain what did in fact happen. Fragmentation did not endure.

Historians depict nineteenth-century Chinese history as a narrative of decline qualified by some signs of adaptive abilities to develop new institutions to accommodate the increased presence of Western merchants, missionaries, and diplomats. But although it was obvious to Chinese leaders that they faced multiple challenges, none could anticipate in the 1850s and 1860s or even the 1880s and 1890s that their system of government would fail in 1911. It may well be that leaders in other large nineteenth-century polities also lacked the foresight to recognize growing signs of failure, but in the Chinese case leaders confronted the end of their imperial system by developing new strategies and institutions to create a government that replaced empire. Although their success was certainly in doubt for several decades of war in the first half of the twentieth century, defeat of the Japanese and the conclusion of a civil war did not lead to a divided country. It culminated in the establishment of a regime claiming in large measure to rule all the territories and peoples once ruled by the Qing dynasty. When political stability was reestablished, the Chinese could once again enjoy many advantages of a large political unit. Obviously, the leaders of the People's Republic of China did not take effective advantage of these possibilities until three decades of rule had passed. In many ways China's experience since Mao's death reminds us that the region had a real economy before the Qing Empire's demise and that foreign political demands clearly constrained how that economy could evolve.

The failure of the Qing dynasty to manage the transition to a modern economy turns out to be distinct from the possibility of a large-scale polity reemerging after a period of disunion. In one sense such an event lends credence to those who suggest that the Communist Party is simply the most recent dynasty in a long line of rulers who have controlled the Chinese mainland. But in another sense the Chinese state that emerged after 1949 was one that could take advantage of practices begun by earlier generations who had managed to adopt and adapt a variety of foreign economic, social, and political ideas and institutions. The fact that little advantage was taken of this legacy until thirty years after the founding of the People's Republic does not make those earlier experiences any less relevant to understanding how and why China has grown so rapidly since the early 1980s. Understanding how the spatial scale of a polity matters to economic growth today, however, is a question quite different from the one that has occupied our attention in this book: how differences in spatial scale affected China and Europe before the nineteenth-century divergence. We have offered an abbreviated sketch of some features of Chinese political change in the nineteenth and twentieth centuries to remind the reader of the durability of a spatially large polity on the Chinese mainland. Empire, as we have used the term, has survived in China at the same time at which Europe has (since the 1950s) been moving more explicitly toward political and economic unification. We have allowed the narratives of European national state making to supply the norms for political development for too long. If it is disorienting to realize that Europe has been moving toward a Chinese norm of political scale rather than China moving toward becoming like any particular European state, that is only a measure of the bias of long-standing approaches in Western scholarship. The historical perspective we have gained here at least begins to correct that bias.

Political Competition and Economic Growth

Although the two ends of Eurasia achieved radically different political equilibria, the dominant underlying political economy analysis used to explain both is remarkably similar. For Europe, scholars have emphasized the importance of institutions of parliamentary representation and interstate competition for growth. Conversely, for China, and for despotic governments more generally, scholars have found only economic stagnation. In Europe the advent of good institutions was thought to be responsible for the onset of sustained growth, while in China the stifling oppression of the omnipotent emperor led to a population living near the Malthusian minimum. As the reader has discovered, our thesis is rather different. At the aggregate level, interstate competition was quite costly and certainly had a negative impact on the size of the market, while we see emperors surviving in part because they cared about their subjects' welfare. Nevertheless, the superiority of a particular form of governance should not be overstated because well into the nineteenth century massive variation in political structure remained within Europe, and massive variation in levels of well-being characterized life both within China and within Europe.

In China, scholars have recently been uncovering mounting evidence of regional differences in income before the twentieth century that is not consistent with an empire whose subjects were barely eking out more than subsistence. Moreover, imperial policies do not seem to have been so extortionate that they led to low levels of investment or to massive poverty. On the contrary, it seems that these policies aimed at expanding the regions of prosperity across the realm. The evidence for Europe is even more at odds with the old assumptions, given that representative governance was not consolidated until the last quarter of the twentieth century, even in the parts of Europe that were not behind the iron curtain. To be sure, one could argue (and we have done so elsewhere) that rulers were unwilling to adopt the more efficient structures of governance because that would have reduced their power (Rosenthal 1998). In the light of China's history, that amendment is insufficient. The level of economic growth in Wilhelmine Germany was remarkably robust even though by English or French standards it was an incomplete democracy. Equally problematic, the levels of economic achievement of England had few echoes in Ireland (although it was formally part of the same polity) during the 120 years in which the union between the two countries prevailed. And these examples are small matters relative to examining either Austria-Hungary or the Iberian Peninsula. In short, the logic whereby the competitive state system provides great rewards simply does not hold throughout Europe. Economically more efficient states, like the Netherlands in the seventeenth century or England in the eighteenth, did not gain territory in Europe. States that transformed themselves may have garnered a higher rate of economic growth, but their territorial expansion in Europe was nil—to the extent that when there was a reward, it came in the form of colonial empires.

We do not mean to suggest that efficient forms of governance neither exist nor prevail in the long run, but rather that the pressure to adopt representative institutions was weak. Moreover, the impact of reform was dramatically different across space. Political structures affected economic growth historically and continue to do so today, but the putative virtues of European state formation for economic growth have been misspecified, and contemporary political changes in Europe suggest that China is at least as much a political norm for effective state policies on the economy as any individual European state or the European Union can claim to be. We emphasize that in historical terms political regimes were adopted largely for fiscal reasons, not because of a love of liberty or an unwillingness to put up with a corrupt monarch. Furthermore, the conflict over representation was, more than anything else, a struggle over the control of expenditures and the level of taxes. Hence one cannot argue that representation was somehow promoted by individuals who wanted to reduce the distortions inherent in despotic taxation. Rather, these individuals wanted to strip the power of choosing the level of taxes and the distribution of expenditures from the sovereign. The European dynamics of political transformation did matter for economic growth because, as we argued in Chapter 3, the competitive state system was directly (though unforeseeably) responsible for Europe's adoption of capital-intensive methods of production, while China's peaceful empire privileged recourse to labor-intensive methods. In this chapter we have seen how the political structures that were in place at the time of Charles V in Europe and the Ming dynasty in China have continued to influence the process of institutional change. To be sure, Europeans are no longer quite as enamored of their parochial privileges, but national and, to a surprising extent, provincial identities already in place in 1500 continue to hamper European unification. China's growth, by contrast, is occurring under the guidance of a very strong center that must sometimes reckon with provincial priorities. How the spatial scale of polities continues to matter to economic growth today is a topic to which we now turn as part of a more general conclusion about the ways in which China and Europe have been changing in recent times. In particular, the end of political-military competition, coupled with a general openness of international markets, makes it easier to sustain fragmentation in Europe. If Catalonians, Scots, and Flemish were forced to endure the risk of invasion from neighbors and were shut out of international trade, they would be much less likely to seek independence than they are now.

Conclusion

Findings, Methods, and Implications

This book has considered a classic question in economic history: why did sustained economic growth arise in Europe rather than in China? The preceding seven chapters argue that political processes drove the economic divergence between the two world regions. This divergence became increasingly visible in the nineteenth century, but its causes are located in far earlier times. For centuries, China's peaceable empire was more prosperous and more stable than Europe's warring polities. But war, which offered to those who lived through it little more than misery (and even less to those who perished), also produced a series of distortions that pushed Europe toward urbanization and capital-using technologies several centuries before 1700. Stressing the political contexts of these two world regions does not mean that we wish to overturn the economic arguments. On the contrary, for preindustrial economies, the theories of the school of economists epitomized by Adam Smith and David Ricardo are extraordinarily insightful.

The problem with earlier attempts to assess the significance of political differences for economic development rests on the inference that the competition so useful for economic development is also salutary among polities. That view has relevance for modern times because if political actors are themselves subject to the rule of law, their political campaigns may well impose a far lesser economic burden than the follies of rapacious dictators. By implication, scholars have concluded that a competitive and innovative Europe outperformed an imperial and traditionalist China. This volume has argued against such easy inferences from the contemporary world to the past. We suggest that the historical costs of political competition were very high. Although political competition has been overwhelmingly prevalent throughout human history and throughout the world, it has rarely created prosperity. In the past, rather than gentlemanly electoral jousting, political competition involved real internal and international violence. The need to secure the resources for political action drives a political actor to intrude into his own economy and destroy those of his rivals. In historical environments in which rulers faced few constraints, the economic consequences of such competition were dire—as Hobbes famously put it, life is nasty, brutish, and short.

The roots of the economic divergence between China and Europe did indeed lie in their political differences, but we view European political competition less as the source of economic virtue and more as a vice that reduced the possibility of economic growth. Europe's persistent poverty before the late eighteenth century resulted from the limited domestic realms of rulers and the resulting restrictions on markets. The rise of capital-intensive methods of production that characterize the modern economy was an unintended consequence of Europe's political anarchy, not a carefully crafted result of government efforts. Conversely, China's vast and stable empire was the source of its millennium-long prosperity, a linkage presented in Chinese historical texts in terms of the state promoting prosperity in order to sustain a vast and stable empire. Together these two observations make it impossible to presume that China failed either because its economic system was incapable of development or because it was hobbled by some overarching cultural, environmental, or political factors.

It turns out that European institutions were not obviously superior to Chinese ones in the ways that are conventionally believed. Therefore, we cannot accept the still-common narratives of a European march forward toward technological breakthrough contrasted with Chinese stagnation. Because we have evened the playing field, it becomes worthwhile to study these economies jointly. We believe that the intellectual payoffs from such a focus are demonstrated in the previous chapters. On one level we argued that other economic or cultural factors that are often invoked (e.g., demography, informality, capital markets) either have their roots in the political processes we highlight or else fail to stand up to evidence. On a second level we have traced the implications of differences in international relations for technological change, credit markets, and government spending.

This has allowed us to show that the chronic threat of war in Europe produced unanticipated positive conditions for economic change, and its absence allowed the Qing dynasty to implement policies favorable to Smithian growth but unlikely to produce industrialization.

Our analysis has been less concerned with explaining precisely when and why Europe overtook China's economic leadership than in tracing the consequences of two political structures (empire and fragmentation) on economic change. We have built our argument in terms of an increasing likelihood that new forms of economic production would emerge in part of Europe rather than in any part of China and have demonstrated that what drives these different probabilities can be brought back to differences in political structures. The more typical comparative analyses that seek to explain when and why Europe overtook China in the early modern era face two dangers we can more easily avoid. First, given the state of quantitative information, a precise dating is likely to be inaccurate. In fact, any statement more precise than "sometime between 1450 and 1800 per capita income came to be higher in Europe than China" is unlikely to be very meaningful. This may be a measure of the dismal precision of social sciences, but we should not presume more. Second, analyses that seek to pinpoint a moment of major shifts tend also to search for all the factors present in that historical moment. Such accounts of change are usually quite thick with description. They thus invoke many causal factors whose relative importance or significance is difficult to discern. By arguing for the growing probability that Europe rather than China would be the world region where modern economic development would begin, we offer a kind of explanation similar to those more common in the social sciences: a thesis about expected likelihoods of certain events or effects taking place given the presence of certain other conditions or factors.

Our approach to comparative economic history differs significantly from those currently on offer. Rather than one big theory, our explanation relies on a number of small sharp theories. Each theory or model has clear implications for differences in the structure of economic activity both between Europe and China and within each region. For instance, in Chapter 2 we considered the effect of household structure on the labor market by positing a model of how household structure affects the size of the labor market, and then we formulated a series of propositions about the average skill of wage earners in economies with different household structures.

We seek to be explicit in creating specific causal chains because such chains can be fruitful, in particular when large amounts of data are unavailable. In Chapter 4, to briefly offer a second example, we first used a Leontief production function and then a Cobb-Douglas production function to work through the effects of war on relative factor prices, thus revealing differences in urban and rural locations of production as a function of the fear of military disturbances. We moved from a static model to a dynamic argument that considers war's influences on relative factor prices and the direction of technological change. At all stages the links in our reasoning are explicitly identified and evaluated.

Our comparative economic history is economic because it consciously applies economic theories to the questions we face. It is explicitly comparative and historical because we attend to various elements of context, in particular, seeking to explain how specific sets of institutions operate in different settings, whether these are household structures and kinship systems, financial markets and credit practices, or commercial dispute resolution by government officials and merchants themselves. Our scales of comparison take China and Europe as large and different world regions within each of which there is all manner of variation. We argue that variation in some phenomena, such as intensities of commercial production, should arise both within each region and between China and Europe for simple economic reasons. Among the differences that emerged between China and Europe, we distinguish those for which political factors were most crucial.

Our strategy of analysis applies a number of general principles to specific regions over long periods of time. We are by no means modest in our ambition, but our claims are certainly bounded—they exist within certain contexts. We do not offer any universal explanation of economic change or any general theory about the impact of politics on economic change. Indeed, we are somewhat skeptical that much universal explanation is plausible in the social sciences, historical or otherwise. More specifically, we have offered an explanation of why modern economic growth began in Europe rather than in China. Many of our explanations are specific to major aspects of this large problem. A few are more general, such as the argument in Chapter 6 about the composition of public goods and levels of taxation in China and Europe; we explain both why China had lower taxation and higher public goods provision than Europe did before the nineteenth century and how China's levels of taxation subsequently rose and public goods provision fell for reasons similar to those at work in an earlier period of European history. Although circumstances have changed—in particular, military budgets have shrunk relative to other government spending—tensions over fiscal policy remain at the core of politics. Furthermore, and as we discuss later, the institutions that distribute power between the center (Beijing or Brussels) and the provinces or countries (e.g., Sichuan or Guangdong, Spain or Sweden) have tremendous persistence.

Overall, however, our explanation of why modern economic growth began in Europe rather than China has stopped around 1800. In this book we seek to understand the factors that caused the great divergence in technological change, and that process was completed by 1800. Thus we have not discussed much nineteenth- or twentieth-century material nor evaluated other world regions outside China and Europe. Certainly, the process of economic growth changed during the nineteenth and twentieth centuries and thus includes new problems and possibilities we have not had reason to consider. Nevertheless, our historical perspective on institutional change has implications for how we view twentieth-century transformations in China and Europe, as well as what we might anticipate in the future. We argue that institutional change is always, at least in part, an extension and elaboration of previous practices, whether consciously conceived as such or not. Moreover, contrasts between China and Europe help highlight the challenges these regions face and the opportunities they can seize.

The global twentieth-century economic environment is, of course, fundamentally different from the settings in China and Europe with which we have been principally concerned in this book. Technological progress and political change have altered both the kinds of institutions people can construct and the choices they are likely to make. For instance, the importance of relative factor costs for production choices that is basic to our account in Chapter 4 of manufacturing locations in early modern China and Europe matters far less in the twentieth century. Nowadays, war is not as important, and entrepreneurs and policy makers throughout the world pursue capital deepening. Local variations in relative factor prices may affect the process, but even the most labor-intensive outsourcing involves capital deepening in poor economies. Similarly, changes in labor markets and demography render the arguments we analyzed in Chapter 2 quite irrelevant after 1900 or so: firm size is now so large that household structure is much less important for labor markets than in the past. We are neither surprised nor dismayed to confirm that some of our substantive analyses work for particular times and places and do not readily extend to other cases. On the contrary, these limitations are what we expect of many explanations in the social sciences.

Many scholars accept a periodization of history in which the end of World War II marks a significant rupture with the preceding decades and centuries and thus will naturally be skeptical that much of what we have considered in this book could matter to the past half century. As a result, readers may not be especially disturbed by the reminder that some of our empirical analyses are not directly relevant to the study of the present-day world. If this temporal divide created a consistent division of labor between those working on earlier periods and those working on the recent past, scholars might comfortably continue along their separate ways to develop their distinct literatures. But this is hardly possible because so much of the social sciences and humanities makes claims to levels of generality that depend on propositions persuasive for the present being plausible for earlier eras. Many of us are quite ready to look on the past with our eyes fixed largely on the present. Similarly, many scholars are comfortable making the ideas and institutions of Europe and neo-Europes the norms with which we generalize about the world, an ease demonstrated by *Violence and Social Orders* by North, Wallis, and Weingast (2009), already discussed in our introduction. Much of our book has aimed to counter this convention. We have put China and Europe on the same analytical platform, and, guided by some basic principles of economic theory and knowledge of Chinese and European history, we have evaluated factors of possible significance for economic performance in the past. Now we turn to the post–World War II era to suggest that much about the recent pasts and possible futures of the Chinese and European economies can be better understood by including an understanding of history.

Because institutional changes take place in particular contexts with important historical dimensions, politics can always influence economic practices. We have made much of the recurring capacity of states to create ideas and institutions of empire across the Chinese mainland and the absence of a comparable capacity in Europe. For both China and Europe, the years from 1914 to 1947 were a succession of catastrophes, most of which had political origins and international scope. Although economic growth might have been rapid in some places during the 1920s, the longer period

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bracketed by the two world wars was a very dark period at both ends of Eurasia, which were beginning to converge toward polities of more similar size. In particular, war-torn China fragmented and began to resemble a more familiar fragmented Europe. Thus if we were to focus on the first half of the twentieth century, it would be easy to conclude that our contrast is no longer relevant: the empire was vanishing.

If we fast-forward to the late twentieth century, we witness a reunified China and a Europe moving in fits and starts toward reduced competition, more coordination, and even integration. Europeans have begun to achieve a spatial level of political coordination and economic integration that China repeatedly achieved in earlier periods of history and continued to pursue after the founding of the People's Republic in 1949. Europeans were encouraged to achieve greater political cooperation because the globe had been divided by the Cold War. The fault lines created by the Cold War made intra-European political competition less plausible. Although economic recovery from World War II was pursued at the national level, it was framed within a new international competition between the capitalist West and the socialist East. The Communist threat made the battle lines of the world wars obsolete and enabled the seeds of European economic integration to be sown. But economic coordination remained limited and integration slowed because regional policy making continued to be hostage to nationalist visions of economic growth. We can look back from the present and see the precursors of the European Union (EU) in such institutions as the European Coal and Steel Community and later the Common Market, but these were hardly key components of political policies that framed economic activities. The more visible flowers of unification bloomed decades later.

In China a different rupture with earlier practices took place in the 1950s and 1960s. By the mid-1950s central planning replaced markets that had spanned urban and rural areas and that had induced many people to adopt technologies and institutions first formulated in the West. Although many of the economic practices and their institutional settings we have analyzed in previous chapters were demolished by the Communist regime, certain key political and economic elements remained or resurfaced at various points after 1949. The People's Republic formed a unitary centralized state governing virtually all the territory amassed by the Qing Empire at its height. The advantages of centralized bureaucratic rule, as well as the institutional limitations of such rule, were rediscovered by the

Communists even as they forged a political ideology and institutions that consciously owed more to Soviet influences than to earlier Chinese ones. The ideological and institutional ruptures between the late imperial past and the socialist present of the 1950s and 1960s obscures just how much these two unitary and centralized states shared.

To appreciate the significance of China's late imperial past for its present and future practices, we must consider some persistent differences in Chinese and European political economies. If we turn to contemporary public finance and recall the argument presented in Chapter 6—that the eighteenth-century Chinese state made all taxation decisions at the central level—and contrast this with the absence of an EU level of government in this same era, we can uncover some of the bases on which we hold very different expectations of public finance in Beijing and Brussels. For EU administrators to acquire a budget equal to 10% of EU gross domestic product would require a far greater transfer of sovereignty than most Europhiles contemplate. At the same time, it is difficult to imagine the central government in China managing such a small percentage of Chinese gross domestic product in the future. Similarly, Beijing produced a fiscal stimulus response to the 2008 financial crisis that far exceeded what Brussels could even imagine. The Chinese approach combined funds from the center with directions for provincial-level stimulus targets. It also left many details for provincial authorities to decide. In its structure it is highly reminiscent of the ways in which mid-eighteenth-century Chinese officials mounted famine-relief campaigns that involved central government authorities making plans and the coordination of the efforts of multiple provincial-level administrations. The EU-level response to the 2008 financial crisis was simply pallid. Bailouts and fiscal stimulus packages were left to the national governments. Beijing, in contrast, put up half the funds for its stimulus package and dictated the kinds of infrastructure projects that would be supported. Even more recently, Brussels has allocated no funds to respond to the Greek financial crisis; at best, it can coordinate the different national governments. In the end, each member state decides whether to help out. The EU simply does not have the money to do much, and, of course, Europe had no early modern parallel to China's famine-relief campaigns.

Over the past three decades, China has embarked on processes of economic transformation that promise a great deal of improvement for extraordinarily large numbers of people. The number of potential consumers in these countries has made the heads of global firms giddy with anticipation.

But exactly what are the bases of this stellar performance? Among contemporary China specialists it is generally well understood that growth in the 1980s largely occurred without the benefit of the formal institutions deemed so important both for Europe's economic history and in the prescriptions made for development in the contemporary world. Much of China's industrial growth in the 1980s and early 1990s was produced by township and village enterprises (TVEs), firms outside the state plan that lacked clear property rights structures and engaged in exchanges without the benefits of a court system to enforce contracts. One hears some China scholars and observers remark that this was a natural way to begin growth. It did not pay for Chinese officials to develop formal institutions to manage production and exchange early on. Instead, informal institutions could shoulder the burden until China became rich enough that it could afford to improve its legal infrastructure. That scholarship leaves in the dark why such "natural" growth experiences do not occur more generally throughout the world and, conversely, why post-Communist China was able to rely on informal institutions during the explosive TVE growth period. Our account in Chapter 3 suggests that informal institutions had long been important historically in China not to palliate failed formal institutions but as complements that enabled market exchange. Chinese policies after 1949 took away many informal institutions and put in their place formal institutions quite different from those of a market economy. Mao's radical rule was brief enough that the earlier history was not forgotten. When in the mid-1970s leaders decided to allow and accept growth outside the formal state sectors and plans, people depended greatly on earlier informal institutions as the basis on which they began to pursue development. Chinese economic growth in the 1980s was thus built on the past.

Since the early 1990s policies and economic conditions have changed, and so have Chinese enterprises. Industrial production increasingly takes place in sophisticated factories whose owners and managers require more clearly stipulated property rights than those of the TVE era. But contract enforcement remains uneven at best, and not all property rights deemed necessary and appropriate in Euro-American contexts have been specified clearly in Chinese situations. We believe that such differences can often be explained, at least in part, by preferences and practices of earlier eras. The extension of our argument in Chapter 3 to more recent conditions counsels us to avoid simple projections about institutional convergence that accompanied the once-popular "end of history" kinds of arguments.

Similarly, our analysis does not support the view that China's development can serve as a refutation of American economic practices specifically and Western ones more generally. It also does not support any arguments about a "clash of civilizations." It has become popular to see different economic practices as evidence of persistent differences that make foes of people in different world regions. As we have repeatedly indicated, economic principles at work in one world region apply equally well in another. The differences we have found depend on history's influence over institutions that are, to some degree, always embedded in broader social contexts that have features distinguishing them from others.

This perspective figures prominently in our account of credit institutions and financial markets in Chapter 5. In spatial terms we developed and applied an argument to explain variation among early modern European situations, as well as between them and the far less well-documented range of situations in late imperial China. Different types of debt were developed in Europe, and financial markets in many countries responded to new demands for credit. European governments did not collect large amounts of data on private financial markets, but their policies greatly influenced the institutional particularities of financial markets. The diversity of financial practices, however, did not produce clear and important economic differences among different parts of Europe. Europe was able to tolerate financial diversity and variation with no sharp impact on economic efficiency. Scholarship on Chinese economic history has yet to discover and analyze data that would allow us to assess the nature of variation across the empire. However, we have been able to show both that the absence of European-style financial institutions does not mean that the Chinese were bereft of credit mechanisms, and that it is unlikely that the limitations of capital availability were a crucial constraint on economic growth in the era preceding the Industrial Revolution. Moreover, when we turn to the recent past, we can see that politicians from different European countries have continued to be willing to pay a high price for financial diversity—most notably in the regulatory failures that led to the Icelandic financial collapse.

In contrast, a strong centralized government in Beijing after 1949 was able to redefine the institutional bases of Chinese credit institutions and financial markets, thereby asserting its capacities to define formal institutions. Its ability to coordinate banking policy has avoided the tensions and inconsistencies that have plagued the EU. This contrast is plausible despite the repeated rounds of banking and financial reforms that have changed the formal system and permitted some local and less formal forms of financing to thrive. Irrespective of the relative virtues of the Chinese and European financial systems, it is at best premature to anticipate that Chinese practices should converge toward any European or American practices that can confidently be assessed as superior. Some of the formal reforms undertaken by China have made some of its banking practices conform more closely to international standards defined by some mix of European and American practices, but the Chinese financial system remains very distinct from those present in Europe and the United States (Z. Fan 2007). Both are subject to reforms, some of which make them more similar. Other features, less commonly noted, reflect their persistent differences.

The politics of contemporary economic differences have historical dimensions that almost all observers of the contemporary world ignore. We suspect that this ignorance handicaps our abilities to anticipate the likely range of future changes in any of these situations. This book is certainly not intended primarily to proclaim the virtues of historical social sciences for confronting present problems and imagining future possibilities. It has taken on a more modest challenge of exploring and explaining the relative performance of China and Europe over many centuries. We chose to do so by combining our different expertises; that in turn forced us to reconsider and reject some approaches to comparative economic history.

In understanding persistent differences in economic institutions, social scientists have become fond of frameworks that emphasize the long shadow of history. A variety of cognitive, cultural, or political factors conspire to make that shadow so powerful that societies become locked into specific institutions. Whether these are informal institutions, religious constraints, or family practices, these modes of behavior lie outside the standard policy domain and largely doom these societies to poverty. Even when they do not suggest that institutional change is virtually impossible because of path-dependent constraints, social scientists have come to recognize the tremendous difficulty some societies experience in making institutional innovations (La Porta et al. 1997, 1998; Acemoglu et al. 2001; Engerman and Sokoloff 1997). Even though a set of technologies and institutions that massively raised individual welfare has been developed, only a fraction of the world has yet to take full advantage of these innovations. Explaining the persistent differences between societies that have embarked on modern economic growth and those that have not done so attracts scholarly attention to institutional differences. With respect to arguments about different kinds of path-dependent institutional lock-in, we suggest that such ideas should be pursued with extreme caution: appearances can be very deceiving. What seem to be path-dependent institutions can change rapidly if the economic or political contexts change. To the extent that we seek a revolution, ours is more narrowly political. Rather than consign some societies to poverty in the absence of radical cultural change, one should seek to alter the political structures that shackle growth. Our research indicates that this would require more than the simple transcription of Western models (e.g., democracy). Rather, the history of China and Europe favors a gradual evolution in which either indigenous elements are transformed to serve new purposes or external institutions are inserted into a local structure.

This economic history also argues that if social science is to contribute to the process of change, it must ally local historical expertise with the abstract concerns of economic and political theory. This is not as easy as it seems because of disciplinary conflicts. Too often economists consign the knowledge of historians to the bin of irrelevant details, while historians and area-studies scholars treat economic theory as a construct with little relevance to the real world. It is also difficult because scholars working on Europe or North America have more often than not thought to evaluate specific institutions with a home-country bias. From their point of view, because Europe experienced economic growth earlier than elsewhere, it must have had better institutions. This has led them to a line of inquiry that rationalizes the inferiority of alternative structures. Economists are particularly tempted by such analyses because they fit neatly in the discipline's focus on optimal decision making. Unfortunately, as the preceding chapters show, this approach can lead one seriously astray.

This set of observations on our method of comparative economic history and its virtues for analysis, both historical and contemporary, concludes our book. We have sought in the preceding seven chapters to provide a combination of Chinese and European historical narratives and economic analysis adequate to persuade the reader that understanding the politics of economic change in China and Europe before the Industrial

Revolution is both possible and useful. In particular, we suggest that these efforts enable us to identify key factors that explain the economic divergence between these two world regions better than those previously proffered. If we have achieved any success at reaching our objective, we hope that the reader will also consider the book's approach for subjects far beyond our particular historical subject that lie in the recent past and will confront us all in the future.

Notes

References

Acknowledgments

Index

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Notes

2. Population, Resources, and Economic Growth

1. These assumptions make about as much sense as one that would assume that marginal productivities are equal for all households at all times.
2. The analogy comes from flipping coins an even number of times and examining the share of heads. As the number of flips increases, the proportion of heads gets concentrated around 1/2, while at the same time the likelihood of a sequence that has exactly half heads goes to zero. The first effect drives the shrinking labor market, while the second drives the increasing share of households in the labor market.

4. Warfare, Location of Manufacturing, and Economic Growth in China and Europe

1. A factor share is the ratio of expenditure on one factor to total expenditure. If w is the wage rate and r is the interest rate, the factor share for labor is $wL/(wL+rK)$, while the factor proportion is simply L/K.

5. Credit Markets and Economic Change

1. Mathematically, if the individual discounts the future at rate d, then the interest rate, r, must be such that $d = 1/(1+r)$.
2. The one mysterious period is the long hiatus in the empire under the Sung. For some three centuries the Chinese mainland was divided into competing regimes. A European, at least, would have surmised that either the Sung or its rivals would have developed credit institutions in a gambit to reunify the empire.

6. Autocrats, War, Taxes, and Public Goods

1. After that time some states launched road-building efforts to move their troops; the same roads were also useful in speeding up transport (see Arbellot 1973).

2. There are exceptions, of course, such as the French state investment in royal roads in the eighteenth century. It is worthwhile to note, however, that these roads had important strategic value and that this investment came late in the preindustrial period.
3. Richard Bonney (2007) puts the cost of Versailles at 92 million livres. That amount was less than 2% of tax revenues during Louis's half-century reign.

7. Political Economies of Growth, 1500–1950

1. Crucial Manchu innovations took place in the dynasty's relations to other groups along the empire's northern frontiers, especially with different Mongol, Uighur, and Tibetan groups, but these important changes, the subject of much recent and current research in Qing history, concern areas that are not the sites of economic practices with which we have been concerned in this book.
2. We concentrate on the European empire because it is the most relevant to the issues in this book. We return briefly to the colonial empires in the last part of this chapter.
3. As in all things in Europe, there are exceptions. Notably, the Austro-Hungarian Empire was immune to the reform epidemic. Its various nineteenth-century guises emphasized the institutional distinctiveness of its different components (down to the emperor of Austria separately ruling as the king of Hungary).
4. For a narrative of this period of Chinese history the reader may consult Spence (1990: 137–513).

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