States and Development: Early Modern India, China, and the Great Divergence

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Abstract Can differences in state capacity explain the Great Divergence between Asia and Europe? Evidence from India and China suggests that customary property rights provided de facto rights to land and community ties substituted for de jure property rights in mercantile activities. Economic activity did not face an undue risk of expropriation. China and India generated lower fiscal revenue per capita compared to Europe. We explain the big difference in revenue per capita between the two Asian countries and England in the early modern period. In terms of the differences in the threat of internal and external conflicts. The large empires in Asia faced a disproportionate threat of internal rebellions and traded off fiscal capacity for appeasement of local ruling groups and their military support in external conflicts.

Keywords Property rights • Fiscal capacity • Warfare • Great divergence • Mughal India • Qing China • East India Company

Did states in different world regions promote or inhibit capitalist economic growth in the early modern times? This is now the subject of a large scholarship. The comparative history evidence tests whether world regions were similar or different in the eighteenth century, whether "modern" polities emerged in these regions at the same time or not, suggesting new theories and clarifying older ones about how state formation and political modernization make a difference to economic change. The scholarship on Europe is extensive and has recently made a big move into comparing Britain with China. India is yet to be firmly integrated in this comparative history of states. The present chapter is an attempt to apply hypotheses drawn from the Eurasia literature to early modern India and draw comparisons with China.

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The state provides the necessary conditions to achieve long-run economic growth. It does it in two ways mainly: supply of growth-promoting institutions such as protection of private enterprise and supply of public goods such as infrastructure and defense. The first refers to the rule of law, that is, a legal system that enforces property rights (North 1982; North and Weingast 1989). It can also be based on community enforcement mechanisms that allow trade and commerce and even industrial activity to grow (Greif 2006). The second way requires the state to grow in size and capacity to invest, and in turn, grow in military capability as well. The states that emerged in Asia, Africa, and Latin America before European expansion and colonization pursued these objectives in a different way from the states in Europe. These considerations give rise to two broad questions about the comparative history of states and their divergent economic outcomes. How was secure property defined and protected by the state? What were the conditions for sustainable growth in size and capability?

The present chapter explores the evidence from India and China in relation to Europe in order to shed some light on these questions. We start with a discussion of the ways in which the states in India and China differed from Europe and pursued the objectives of limiting risk of expropriation and providing security of state boundaries in the early modern period. We review the comparative history evidence by bunching these questions into two sets, one dealing with property right protection, and the other with state capacity.

Property Rights: A Comparative History Perspective

Douglass North's interpretive history of Western Europe emphasizes security of private property and the related idea that state power to expropriate needs to be constrained. An important critique of the case for limited government is provided by S.R. Epstein (2000), suggesting that jurisdictional fragmentation rather than constrained government was the key to early modern economic growth. Controversies over the European experience aside, the perspective raises the question, how secure were private property rights from expropriation in other regions of the world?

The question of manipulation of property rights arises quite strongly in the particular context of European expansion in the New World. Organized land-grab and labor servitude defined the features of what has been called "extractive" settler policy (Acemoglu et al. 2001). The evidence concentrates especially on land and natural resource extractive activities. As for the Old World regions like India or China, Karl Marx believed that private property did not exist at all in Asia (Thorner 1966). Eric Jones (1988) believes that private property was insecure in the East. Most definitions of property rights hinge on the feature of marketability of land. If customary rights on land make the cultivator liable for taxation, then the absence of the right to buy and sell land is, at best, a narrow definition of property rights.

The oriental despotism scholarship inspired by Marx considered that the emperors also oppressed capitalists in Asia, whereas their power was constrained in Europe. "In general", J. Barrington Moore wrote, "the attitude of the political authorities in India towards the merchants seems to have been closer to that of a spider towards a fly than that of the cowherd towards his cow that was widespread in Europe at the same time."[1] William Moreland (1923), the economic historian of medieval India, drew a picture of the Mughal state as an extractive machine, leaving little space for a commercial culture to develop except in elite luxury goods or in moving grain. The Marxist anthropologist Eric Wolf (1982) saw the effect of the "tributary" Mughal system upon merchants in much the same light.

Property Rights: Mughal and Post-Mughal India

Was property secure and widely accessible in Mughal India? The existing evidence suggests that pre-British states in India took private property and the security of property quite seriously, so that there was little the most important post-Mughal regime, the British imperial state, could add to this dimension. The Mughals maintained detailed revenue records, conducted cadastral surveys, and offered incentives to established settlers. These measures suggest that the Mughals recognized and valued private property. Confiscation of property was a conditionality of tax farming arrangements common in the Islamic empires of Asia. But confiscation did not mean taking over ownership rights but the withdrawal of an entitlement. An entitlement to enjoy the returns from property did not mean the same thing as owning the property.

From the late eighteenth century, much of India became a territory ruled by the East India Company. When in the late eighteenth century, the Company set out to create a new framework of law for territories it then controlled, they discovered more apparent similarities than differences between precolonial India and preindustrial Europe in the structure of economic laws. For example, the British discovered by perusing Sanskrit, Persian, and Arabic texts in the eighteenth century that the notions of legality and rule of law were as developed in India as in Europe. In some of these texts that they translated for use in the courtroom, the meaning of private property and the theory of the sanctity of contract closely resembled their European counterparts.

This does not mean that property rights were of the same kind in India and Europe. The peasant's property right was a right to use agricultural land but not exactly a proprietary right in the modern sense. It was not because the tax farmer or the military-fiscal tenure holder also had a right to use the same agricultural land in

[1] J. Barrington Moore, *Social origins of dictatorship and democracy*, 1967, p. 322.

a different way, but land could not be bought or sold without there being a political bargain of some kind. But that might not have adversely affected the peasant's incentive to improve land. The colonial government under the East India Company introduced a new land tenure system in India at the end of the eighteenth century to show that private ownership of land could be defined legally. The construction of property rights in land as a formal institution was new and de jure and gave landowners the right to buy and sell. But the customary rights before the arrival of the British carried with it "informal" rights to this land defined by the responsibility to pay taxes and intergenerational rights to cultivation.

By 1860, India was the largest colony in the British Empire. European settlers were few in number in the region, although they did exercise a great deal of influence on British imperial and foreign policy in the nineteenth century. Did the settlers also play a role in the allocation of resources? The evidence that they did so in an institutional way was largely absent in India. In land rights, British Indian legislation did not discriminate between people by the ethnicity of the right-holder. If anything, expatriate land-holding rights were weak compared with indigenous rights until well into the nineteenth century. Europeans could not own or purchase farmlands, for example, until the late 1830s, 80 years after colonization had begun. Agricultural land was owned by peasants and landlords, and the British legislated on these rights so heavily that any land transfer, because it involved a complicated legal process, became progressively rare. Only in the case of tea and coffee cultivation were forest lands leased out by the Government to plantation companies, but these actions did not involve transfer of property rights held by Indians before.

Did the Mughal state expropriate private capitalist property routinely? Recent rethinking of the Mughal state has more or less discarded the Marx–Moreland approach suggesting a huge imbalance in the relation between the state and the capitalist order, emphasizing instead its dependence on mercantile classes for a smooth running of the fiscal and monetary systems. While bankers could be pressurized to lend to the courts, there is little evidence that their property was under threat of usurpation in the Indian cities, barring sedition or disloyalty. Private trade developed and international trade saw rapid growth in the seventeenth and eighteenth centuries with the entry of the European trading companies. Trading rights were granted to these companies by the monarch and the risk of expropriation did not hinder India's domination of the international textile market. The rise and the expansion of textile trade and other market exchanges used community-based rules to provide a secure institutional setting for commercial activities.

Insurance rates on trade, which would reflect the risk of expropriation, were not abnormally high. Community enforcement mechanisms prevailed in the communities of Indian traders and bankers. The absence of such contract enforcement mechanism between the European companies and Indian producers and traders was seen as a shortcoming of the legal system for outsiders to the customary laws. For the Indian merchants customary laws were adequate.

Property Rights: China[2]

China's Tang rulers shifted the main source of tax revenue from labor to land at the end of the eighth century. From the perspective of tax collection, this put a premium on establishing clearly defined property rights in land. Accordingly, the state began to relinquish control and regulation of land tenure. While the emperor retained de jure control over all land, this new arrangement contributed to the emergence of de facto private land ownership and fostered the rise of a family-based owner-cum-tenant system of agricultural cultivation that dominated the economy of imperial China for the next millennium (Ma 2012).

The emerging private property rights over land typically included residual claimancy; the right to rent, sell, or mortgage land; and the right to bequest. Recognition of these rights allowed private owners rather than the state to capture the benefits associated with rising productivity, new land reclamation, and population growth. If households became unable to farm the land themselves, the opportunity to transfer their land-use rights via sale or rental allowed them to capture the returns to their investments in the land.

Although de facto private property rights in land date back to much earlier periods, the Tang reforms encouraged the development of increasingly sophisticated markets for land in which layers of ownership and user rights could be purchased, sold, rented, mortgaged, and divided.[3] Ownership of a single plot could be vested in separate parties endowed with rights over the surface and sub-surface respectively – the so-called *yitian liangzhu* (two lords to a field) or even *yitian sanzhu* (three lords to a field) system – rights that could then be sold, leased, or used as collateral. Tenants as well as owners could freely buy, sell, lease, or mortgage their access rights. The efforts of millions of households to use land as a vehicle for maintaining and, if possible, improving their socioeconomic status produced a variety of complex outcomes. Given the irregular income stream associated with farming, the rich array of vehicles that mimicked many contemporary financial instruments allowed average farmers to "financialize" land, their premier store of wealth, to provide liquidity and stabilize their income. The same features also facilitated payment of land taxes.

Revenue constraints at all levels of government led to a common pattern: officials granted merchants, guilds, or kinship groups unwritten but well understood and enforceable commercial property rights in return for a stream of tax revenues, in what amounted to a form of tax-farming. These accommodations typically involved agreements between officials and commercial groups (rather than individual merchants). Mercantile groups selected leaders whose authority was recognized by both officials and fellow merchants. Officials expected these "head merchants" to deliver

[2]The narrative on this section draws heavily from Brandt et al. (2014).

[3]Land transactions were often recorded in written documents, many of which survive in libraries and archives. See citations in Brandt et al. (2014).

tax revenues and control the actions of their associates. In return, officials stood ready to utilize their power—either directly or by allowing authorized merchants or their agents to act as informal official deputies—to block initiatives that threatened the operations of the "legitimate" or "insider" merchants (and hence the established revenue streams). Ho Ping-ti (1954) observes that "the interventionist state … protected the vested interests of all salt merchants".[4]

Such structures equipped mercantile groups with substantial control of their trades, at least within the territories administered by cooperating officials. Management of specific trades was often farmed out in this fashion to mercantile guilds, which typically allowed newcomers to enter their business provided that they obeyed guild rules relating to currency, weights and measures, product quality, apprenticeship, wages, piece rates, and, of course, tax payments.

These practices, which essentially amounted to official sales of market control in exchange for informal revenues, had important implications. The presence of entrenched commercial interests with backing from local or even central officials may have acted as a long-term brake on innovation. The prevalence of irregular taxation at all levels of government helps to explain the apparent contradiction between the low rates reflected in the receipts of the Board of Revenue (Table 2) and the popular image of Ming and Qing as rapacious regimes (Ma 2014).

The lack of legal formalization in commercial and civil matters introduced an element of uncertainty into private ownership. Although private property rights in Ming-Qing China were genuine and substantive, from the official perspective, private ownership remained secondary or derivative from the political standing of the property holders. Faced with the possibility, however remote, of confiscatory intervention that no legal response could remedy, property holders felt it necessary to seek shelter under an umbrella of political power (Deng Jianpeng 2006, p. 69). Despite elaborate and generally predictable informal arrangements for recording, protecting, and transferring rights over land and other tangible assets, the foundation of property rights in imperial China, particularly in the sphere of commerce, rested on politics rather than law, with implications for economic change during the nineteenth century and beyond, to be discussed later.

Although these property rights may not be real serious impediments to agricultural, and household production, or even informal and small-scale markets, these rights (and the underlying legal system) seem largely responsible for the restricted development of financial instruments, particular the absence of any formal market instruments for governmental or public debt, an area in which China looks much different from pre-industrial European nations, particularly Holland and England. De facto governmental borrowing (or extraction) existed in the form of advanced collection of taxes, forced "borrowing" from merchants, sale of official titles, and so on certainly existed. Any form of formal and institutionalized public debt instruments and markets would be hard to sustain in an environment where imperial power trumped whatever little bargaining power the merchant financiers

[4]Ho, Ping-ti (1954). p. 142.

may have had in traditional China. Indeed, a more formalized imperial or regional governmental borrowing in China started only in the nineteenth to twentieth-century treaty port era when the bargaining power of merchants and bankers (particular Westerners) were backed up by extraterritorial privileges or Western consular or military presence. The absence of orderly and credible financial instruments such as public debt restrained state capacity and rendered the traditional Chinese state prone to outright fiscal predation or confiscation in times of political crises or widespread breakdown in social order (Ma 2014).

State Capacity: The European and World History Perspective

Was the state capable? Whatever the status of private property, states matter to economic development because they supply public goods such as law, policing, and defense. These activities cost money, and therefore a state with a higher capacity to extract resources can in theory offer more of these goods. A simple measure of state capacity is fiscal capacity, tax per person, or tax per square mile of the territory under control; and comparative data on this measure shows wide differences between seventeenth-century western European states and Asiatic states (Table 1). The role of state capacity on economic development has been demonstrated in a number of recent works. Karaman and Pamuk (2010) have shown this for the Ottoman Empire and the Mughal Empire. Ma (2014) makes a similar point for the Qing Empire, and Vries (2013) demonstrates China–Britain differences with earning and spending data.

Fiscal capacity depends on the bureaucratic ability of the state to collect revenue. The ability of the taxpayer to pay also matters in terms of the volume of revenue. Richer societies can pay more taxes. In poorer societies, where a majority of the population is at a subsistence level, the capacity of the state to tax is also limited. The relationship between per capita taxation and per capita income is nonlinear. We show per capita tax rates declined in India and China until 1800. This is consistent with declining per capita GDP for India and China over the Long Eighteenth Century (Bassino et al. 2015). Economic development is endogenous to fiscal capacity. To determine a causal relationship, we need an exogenous factor. In the European literature these are wars. Post-Black-Death Britain never went back to a

Table 1 Tax revenue per head in grams of silver

	India	China	Ottoman Empire	France	Spain	England	Dutch Republic
c. 1670	20	7	12	46	36	45	
c. 1800	15	3–4	13–15	66	63	160–303	171
c. 1850	16	7				344	

Source: The figures for India have been calculated from the revenue data in Table 2 in Roy (2013). The figures for China are from Ma (2014). For other countries the data are from Karaman and Pamuk (2010), available at http://www.ata.boun.edu.tr/sevketpamuk/JEH2010articledatabase

Malthusian level due to the high mortality regime of wars and urban disamenity (Voigtländer and Voth 2013). The effect of military conflict in the years before 1800 operated through mortality shocks that raised per capita GDP and the capacity to pay taxes. Such instruments were missing in India and China.

What caused big differences in the capacity to extract resources? On this question, Vries and others rely on a factor, which Max Weber once thought was an important characteristic of modern or rational–legal states: a bureaucracy that is professional and acts without conflict of interest. State capacity can be constrained also by geographical factors, such as low productivity of land, and high trade costs, making it more difficult for states to raise resources by taxing trade. In criticisms of the settler model, Jeffrey Sachs (2012) has argued that a preoccupation with settler policy carries an oversight of geographical differences between tropical and temperate regions. Roman Studer has shown persuasively that costs of market exchange varied a great deal between early modern Europe and India due to geographical factors. Moving goods from the interior to the ports was a far more expensive operation in India in the 1700s than it was in Western Europe. States, in that setup, were constrained by the high cost of trade (Studer 2015).

A related question is: Was the state strong? States should be not only large but also capable of withstanding threats of invasion and rebellion in order to undertake investments. A subtheme in the Europeanist literature on the enlargement of the state in early modern times is the growth of military capacity. Some of the major European states in the eighteenth century moved towards sovereign control of the fiscal and the military organizations, away from dependence on mercenaries, creditors, and contractors. The phrase "military fiscalism" is used to suggest a co-evolution of fiscal capacity and military capacity (Wolfe 1972). The corresponding growth of "social power" through a process of conflict brought about the nation state and the state structures that defined European modernization (Mann 1986).

A great deal of the recent discussion on the comparative history of state capacity has focused on warfare. Following Charles Tilly (1989), many have argued that military conflicts created state capacity.[5] The European states introduced mechanisms to raise fiscal capacity in order to finance wars. Tilly argued that frequent wars in Europe created the need to finance militarization and therefore saw a rise in fiscal capacity. Hoffman (2011) distinguishes between the period before and after 1800, when military defeat under Napoleon led to loss of power. When monarchs were threatened with a loss of power, they invested in building military capability and introduced new administrative controls. Gennaioli and Voth (2015) and Dincecco and Prado (2012) find a positive correlation between wars and fiscal capacity. Does this have universal validity? Besley and Persson (2008) show that

[5]Mobilization of resources for war as a catalyst in the making of a modern fiscal system is emphasized in O'Brien 1988; and in the formation of nation states by B. Downing (1991). The military revolution and political change in early modern Europe. For an economic analysis of the contribution of war to state capacity, see Besley and Persson (2009). A recent paper argues that political competition induced investment in military technology, and the beginnings of a "military revolution" in England, France, and Germany, Hoffman 2011.

internal conflicts reduced state capacity, whereas external conflicts increased it. Besley and Persson (2009) show a positive correlation between fiscal capacity, legal capacity, and warfare.

The standard European account of warfare and state development predicts that historical warfare produced greater fiscal capacity and long-run economic development. These were mainly external conflicts. Dincecco et al. (2016) show that this argument does not hold for low population density African states with very different labor market institutions that generated conflict over labor use rather than territory. Greater prevalence of internal conflicts may lead to different outcomes too. Large empires such as China and India may have faced two different options: Appeasement and repression. The monarch may co-opt potential challengers through threat of repression or create an alliance with them through lower taxation when faced with the threat of a military challenge or rebellion With a multitude of ruling elites these empires therefore generate lower levels of revenue at the center. This literature raises two questions. Why was state capacity relatively small in Asia compared with Europe? (Table 1). And can the Asian divergence be assessed in terms of warfare?

State Capacity: The Indian Evidence

It is well established now that early modern and modern states in Asia were much smaller compared with contemporary European states in fiscal capacity. And yet, the Ottoman, the Mughal, the Qing were empires that lasted a long time. Surely weak fiscal capacity did not mean military weakness. What then did military power derive from?

Scholars of Europe have too readily wedded themselves to the idea, which Max Weber first introduced in his analysis of the modern state, that a state is an entity that enjoys a monopoly of violence.[6] Mancur Olson (2000) gave the idea a historical twist by suggesting that states evolved in the manner of a bandit that gives up oppressing its flock in unpredictable fashion and begins to collect predictable protection money (tax) from them instead. Both ideas, now famous clichés in economic history, suggest that a centralization of military power is a feature of any powerful state. The idea obscures rather than illuminates the character of Asian empires. There was no such thing as a centralization of power in Turkey, India, or Persia in the seventeenth century. Although China had the most centralized and hierarchical system, the size of the center, as we will see later, remained fiscally modest and militarily limited. The fiscally weak entities were heavily dependent on local constituents who were allowed to earn money on the side. And yet the imperial center did command military power when under serious threat. The West and South Asians achieved this by means of a cooperative arrangement with semi-independent

[6]For a discussion, see Berman 1987.

local chiefs and military elite. Sharing sovereign powers rather than concentrating it at the top was the key to their survival. The offer of temporary revenue grants or *iqta*[7] was an instrument of securing cooperation, and the withdrawal of that offer at times signified that it was a conditional entitlement rather than a property right.

Recent interpretations of the Mughal state and fiscal system have revised earlier views of a highly centralized state, by placing a great deal of stress on the dependence of the political center upon local power structures, consisting of the landlords and military tenure holders known as *jagirdars* and *zamindars*, among others (Hasan 2004). The concept of a decentralized polity is found to be a useful construct also for medieval Deccan and Maratha states and for Northern India itself (Stein 1985; Perlin 1985; Wink 1986; Ali 1993). Kathleen Gough (1979 and 1981) interpreted the Chola state in South India as a regime that allowed communities to retain substantial social and economic autonomy. Another closely related notion is suzerainty, wherein taxpayers enjoy some domestic autonomy in exchange of a promise to pay taxes, as opposed to sovereignty. Suzerainty was applied in the context of the Ottoman imperial state and found useful by Aidan Southall (1988) to describe the Chola and Rajput lineage states. The principle of leaving lineages alone was common between those examples of Africa and South Asia, in which the term "segmentary state" was used.

The military strength of such a regime flows from bottom to the top, from the army units contributed by local chiefs and communities. In principle the local chiefs would weigh the advantage of staying in the coalition as a security against rebellion or invasion in their own domain against the disadvantage of having to pay regular tribute to the center. If, perceiving that the disadvantage weighed more than the advantage, an individual chief rebelled, the risk of a crushing retribution was too great. If a number of them reasoned in the same way and rebelled together, the empire would collapse. The Mughal emperor tried to protect his interest by maintaining a sound system of intelligence and by the bifurcation of the governance of provinces into two heads, the head of civil affairs and the head of military affairs, the latter being usually recruited from immediate family and the former from among competent court officers. At the turn of the eighteenth century, nevertheless, the balance did seem to change as a simultaneous outbreak of rebellions rendered the center suddenly vulnerable. In a remarkably short period of time, the Mughal Empire lost major provinces to nominally loyal but fiscally independent governors, and a number of border zones to rebels and enemies.

The collapse of the coalition turned the members of the coalition upon each other. The dominant tendency in the second half of the eighteenth century was an increasingly violent contest for revenue between regimes that had succeeded the Mughal Empire. The breakup of the empire, and the struggle for revenue among contenders, unleashed much potential for violence. Rulers, noblemen, warlords, and underneath them, landlords and peasant clans more or less lived in a state of war, especially in western and northern India. All of them sought to improve the means

[7] Land grant given to a local feudal lord.

to acquire more money to finance warfare. But the outcome of the contest was not collective empowerment of the states after the pattern of Western Europe, but quite the opposite, a collective disempowerment. In keeping up the military enterprise, almost all of these political actors ran into fiscal crisis and the states or quasi-states that they had formed shrank in size.

There was one large exception to this picture, and that was the British East India Company. The Company gained in military power through the conflict. Did it gain also in fiscal power? It did not. There is no evidence that the overall fiscal capacity of the state had dramatically improved after British takeover. The Company did, however, manage to reduce the dependence of the government upon local powers. This required a twofold change. First, converting entitlements to property into ownership right, which reduced the power and the military role of the former holders of military tenures. Second, creating a standing army. There was a redistribution of sovereign power and military power at the same time. The process was far from a straightforward one, but it did deliver a degree of centralization that did not exist in Indian history before, at least not on such a scale as in the nineteenth century. The Company's strategy to concentrate military and fiscal power at the center made it a distinctively new kind of rule in India, and an essentially European one, in comparison with most of its Indian contenders. New scholarship shows why the Company succeeded as a military-fiscal state whereas its Indian rivals often failed, and emphasizes the European dimension in the Company's strategy and statecraft in late-eighteenth-century India (Oak and Swamy 2012; Roy 2013).

The centralization of the army was reinforced by the Company's already established position as a naval power. Whereas most empires of the past had a tenuous access to the seaboard, the Raj controlled the seaboard firmly and used that control to foster maritime trade. The Raj emerged not from outright conquest but from the activities of the East India Company between 1765 and 1818. The Company was a merchant firm. Although it had left its commercial legacy far behind in 1858 when it was removed from the formal rule of India, it understood the commercial importance of India, especially its port cities.

The centralization of military power made the East India Company and the Crown rule that followed it, a strong state, and a European experiment in India, but did not make it a more capable state in terms of spending power. The Raj ran a small government. In the 1920s, nominal tax collection per capita was 6 % of tax per head in Britain adjusted by purchasing power parity (Roy 2012). British India was poor also in relation to most of Britain's tropical colonies and other Asian countries in the interwar period. Between 1920 and 1930, the government of the Federated Malay States spent on average more than ten times the money spent in British India per head, that of Ceylon spent more than three times, those of the Philippines and the Dutch East Indies more than double, and those of Siam and French Indochina 40–50 % more (Roy 1996). The Raj was a small government also in relation to its own national income. Government revenue as a proportion of national income was 2 % in 1871 and marginally higher at 3–5 % in 1920–1930. It was 19 % in Britain and 29 % in Japan in the interwar years (Roy 2012).

The result of this fundamentally European experiment in India was distinctly modern if we measure modernity by military capacity. For the first time in Indian history a state did enjoy an absolute monopoly in the exercise of violence. But it was a distinctly traditional Indian indigenous state if we measure modernity in terms of spending power, especially spending on public goods. Barring canals in some regions, and limited road-building projects, public goods such as health and education were created only on a modest scale. The cities were better provided for than the countryside. Growth of trade and the manufacturing industry created a demand for higher education, spurring private investment as well as provincial government investment in education, but again, the scale of spending was biased towards the richer regions and the port cities where most of the wealthy capitalists lived.

State Capacity: The Evidence on China

The biggest threats to the Chinese emperor, with absolute hereditary power and without formal constraint on its rule, came from external invasion or internal insurrection. Rebellions were frequent throughout Chinese history. While external security required additional revenues, internal rebellion required distribution of taxation to ensure a satisfactory level of income for the peasantry. China's fiscal system was centered on the taxation of privately owned land.[8] For simplicity, we assume a fixed stock of taxable land, so that increasing fiscal revenue depended on the official tax rate on a unit of land and the expenditure on the bureaucracy devoted to tax collection. Government revenue was increasing in both.

In this very simple setting, the problem facing the Emperor was to determine the tax on land and the size of the bureaucracy that would maximize net fiscal revenue (total tax collection less administrative costs) and at the same time prevent discontent among farm households by leaving them with a decent post-tax income. The land-tax system created sharp conflicts between the tax collectors and land-owning households, including local elites, who often held substantial acreage. There was unofficial tax farming that allowed the local officials to tax the peasantry for their private benefit. The peasants resisted such impositions through violent protests and allied themselves with the local gentry. High agency costs associated with administration of the revenue system and concerns about insurrection steered imperial China towards modest formal taxation, a small official bureaucracy, and a correspondingly limited scope of non-military activities financed from the public purse.

[8] Yeh-chien Wang (1973) shows that the share of land tax in total fiscal revenue was 74 % in 1753 (p. 80). Other sources of taxes included revenue from state monopolies, particularly on salt. The predominant share of land tax in total taxation can be observed throughout the Ming and Qing dynasties. Ibid.

Following the uprisings during the early years of the Qing dynasty as order was re-established, formal tax revenue expressed in silver taels remained fairly constant between 1700 and 1850, fluctuating around an annual average of 36 million silver taels, of which approximately 70 % came from taxes on land.[9] With stable revenue and substantial growth of population, per capita tax revenue fell steadily: by 1850, per capita revenue was less than half the level for 1700. Nominal revenues rose sharply in the late nineteenth century, but the increase was modest in real terms. The share of government revenue in total output during Qing was low: Yeh-chien Wang finds that late-nineteenth-century land taxes represented 2–4 % of the produce of the land in most areas, although it may have been a larger share in the prosperous Yangzi delta region, and that total government revenue from all sources amounted to roughly 2.4 % of net national product in 1908 (Ma 2014; Wang 1973).

Comparative data shown in Table 1 demonstrate the Qing dynasty's limited fiscal capacity. During the late eighteenth century, per capita revenues were the lowest in China not only in comparison with the European states, but also in comparison with India and the Ottoman Empire. England's government revenue even surpassed the comparable figure for the immensely larger and more populous Qing Empire! The data also show that per capita revenues, which remained roughly constant over long periods under the Qing, tended to increase in most countries (See Fig. 1). Expressing the tax burden in terms of the number of days an unskilled urban worker would have to work in order to earn the equivalent of the average individual tax payment provides an alternative view of the Qing Empire's modest fiscal capacity (Table 2).

Limited revenues meant that the size of the bureaucracy lagged far behind the growth of population. Indeed, the number of counties (*xian*), units ruled by magistrates who occupied the lowest rung of the official hierarchy, hardly changed after Han times (206 BC–AD 220). Despite a vastly larger population and territory, Qing China had only 1360 counties compared to 1230 under the Song (Skinner 1977). Limitations on the size of the bureaucracy help explain why the imperial administration never penetrated below the county level. With a near-static administrative structure, population growth meant that an average Qing county had more than triple the inhabitants of an average Song county. This increased the administrative burden facing local magistrates and magnified their dependence on the active cooperation of local gentry, which in turn reinforced the pressures mandating a low-tax regime, as efforts to increase taxes would place local officials in direct conflict with the economic interests of the same elites whose advice and cooperation was needed to manage local affairs and preserve social order.

Like all revenue-constrained pre-modern empires, Qing's public spending was limited to programs of external and internal security. A large empire like China with

[9]One Chinese silver tael = 37 g of silver.

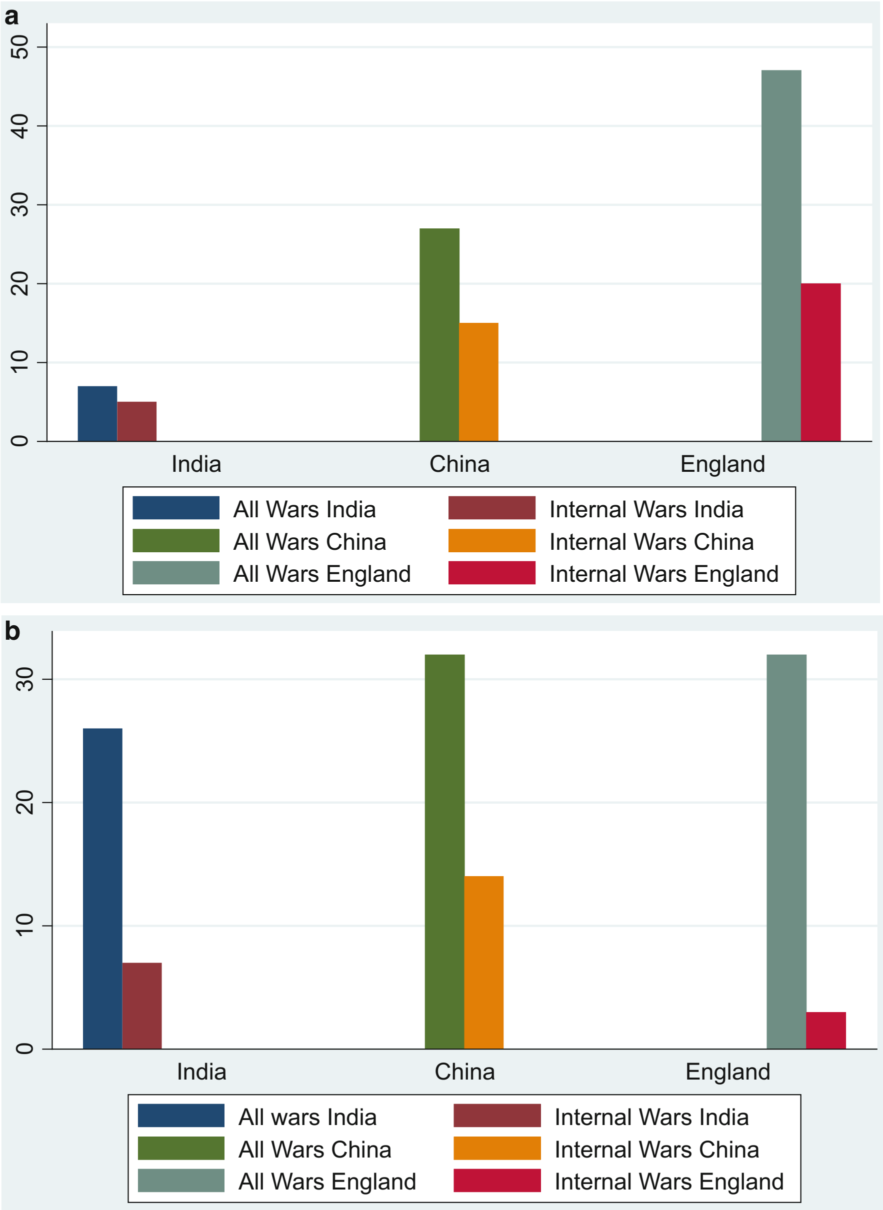

Fig. 1 (**a**) Number of wars in the seventeenth century. (**b**) Number of wars in the eighteenth century. (**c**) Number of wars in the nineteenth century (Source: Brecke Data Set, Conflict Catalog (Violent Conflicts 1400 A.D. to the Present in Different Regions of the World), Centre for Global Economic History, Utrecht)

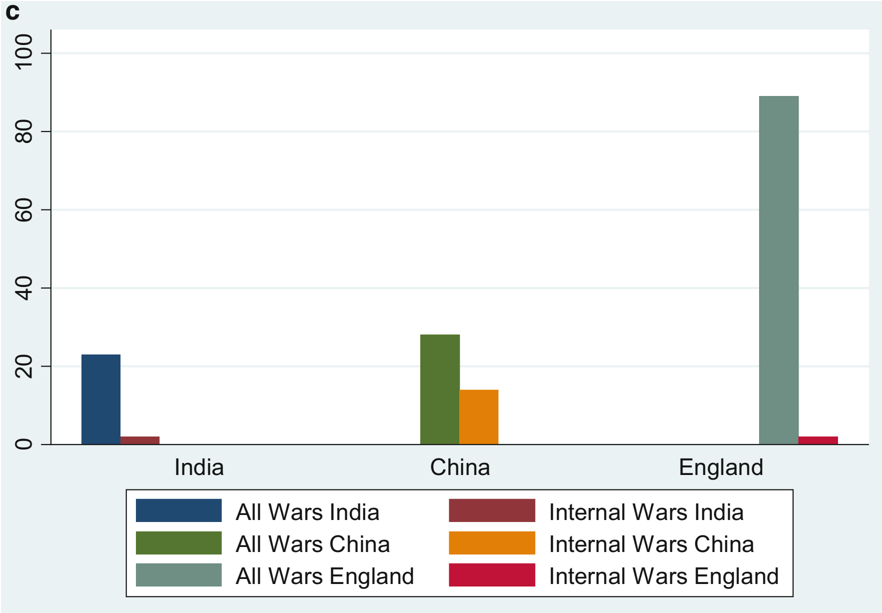

Fig. 1 (continued)

Table 2 International comparison of per capita tax revenue in days of urban unskilled wages

	China	Ottoman	Russia	France	Spain	England	Dutch R
1650–1699		1.7		8.0	7.7	4.2	13.6
1700–1749	2.26	2.6	6.4	6.7	4.6	8.9	24.1
1750–1799	1.32	2.0	8.3	11.4	10.0	12.6	22.8
1800–1849	1.23					17.2	
1850–1899	1.99					19.4	

Source: See Ma (2014). The figures for China are from Ma (2014). For other countries the data are from Karaman and Pamuk (2010), available at http://www.ata.boun.edu.tr/sevketpamuk/JEH2010articledatabase

limited revenues and a small bureaucracy was therefore constrained to spend on public goods. One area where they focused was maintaining increased agricultural productivity – for example investments in water management and irrigation – and on the operation of official granaries that could stave off famine and hence maintain public order when natural disaster struck. Such programs contributed directly to mitigate public discontent and thus supported the longevity of the imperial system (Brandt et al. 2014).

Warfare and State Capacity: An India–China Comparison

Can the pattern of warfare in India and China explain why a divergence emerged in fiscal capacity? If the frequency of wars benefited Europe by raising fiscal capacity after 1800, what was the evidence on warfare in China and India?

Figure 1 shows a comparison of warfare in India, China, and England. We consider the seventeenth, eighteenth, and nineteenth centuries and measure the number of wars in each year summed up to the total in each century.[10] We find that China experienced a large number of conflicts in the seventeenth century. However, an overwhelming majority were internal conflicts. This pattern continued in the eighteenth century. The very low revenue per capita in China (Tables 1 and 2) may well suggest a policy of appeasement as suggested in our discussion. In contrast most of the wars in England were external conflicts. The number of such conflicts in England rose sharply in the eighteenth and nineteenth centuries with colonization of the Americas, Asia, and Africa.

India shows a relatively low incidence of both external and internal conflicts in the seventeenth century and a higher revenue per capita compared to China (Table 1). External conflicts rose from the eighteenth century as European powers began their quest for colonization. Many of England's external conflicts from the late eighteenth century were imperialist wars in different parts of the world rather than only in Europe. India's external conflicts in the eighteenth and nineteenth centuries were with European powers first seeking new markets in India and then acquiring territorial rights. By the mid-nineteenth century, most of India was under British rule.

If wars are conflicts over markets, then large empires with large markets may be less prone to external conflicts. As in Besley and Persson (2008), external conflicts raised fiscal capacity. For large empires internal conflicts were the real threat. A monarch with long-term interest in governing tended to keep taxation at a level that prevented the threat of a rebellion. Evidence from India and China suggest that monarchs used various mechanisms to deal with the threat of internal rebellions. This equilibrium sustained the tenure of the Mughal Empire until the middle of the eighteenth century. Chinese empires similarly managed the threat of rebellions through various concessions. As suggested by Besley and Persson (2008), the internal conflicts reduced fiscal capacity rather than enhance it. Large Empires developed alternative means of militarization through decentralized support for local rulers and tax collectors. Therefore warfare rather than increasing fiscal capacity may have lowered the incentive to tax the producers and also prevent accumulating revenues centrally. Decentralization of revenue and its use in appeasement worked adversely for building fiscal capacity in large empires.

[10]We can also show the number of war years in each century, which takes into account the length of each war. The picture does not change.

Conclusion

Can the origin of the Great Divergence be explained in terms of the quality of state capacity? This chapter argued on the basis of evidence from India and China that we have to be careful in applying concepts derived from European history to these large Asian regions. In both India and China customary property rights worked as effective mechanisms against risks of expropriation and allowed economic activity to flourish. State capacity provides a more promising account of divergence. But the underlying causes of difference in state capacity need to be interpreted cautiously. This important qualification applies especially to the connection drawn between warfare and state formation in recent world history scholarship.

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