

Government and the economy, 1688–1850

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INTRODUCTION

According to a well-worn myth, the British industrial revolution was a revolution that took place in the market, that was financed by private capital, and the agents of which were individual entrepreneurs.¹ The government, which had no industrialisation policy, played no significant role in this revolution. Rather, it gradually adopted a *laissez-faire* policy. Taxation was very low by modern standards and had no substantial redistributive consequences. Government expenditure conformed to early modern patterns and mainly took the form of military and crown expenses. The state owned neither means of production nor infrastructure and even its landownership had been dramatically reduced over the two previous centuries. Though some remnants of Tudor and Stuart regulation existed, particularly in the labour market and in overseas trade, such regulation was not effectively enforced and was in the process of being abolished. The minimal role of the state was unique to Britain. Elsewhere, government played an important role in inhibiting industrialisation (as in France or China), in creating industrialisation engineered from above (as in Germany and Japan) or in encouraging and subsidising private sector industrialisation (as in the USA). The more exceptional that Britain

¹ I am grateful to Martin Daunton, Stanley Engerman, Joshua Getzler and Joel Mokyr for valuable comments on drafts of this chapter.

was in terms of the role of government, the more attractive this minimal role became as a potential explanation of why Britain was the first to industrialise. If the first industrial revolution took place in a 'night watchman' state, should not economists, inspired by this interpretation of the roots of the industrial revolution, recommend free-market industrialisation as the prescription for industrialisation in eastern Europe and the Third World today? This view of the industrial revolution was most popular in the 1950s and 1960s.

This *laissez-faire* view can be contrasted with a state-centred view. The state-centred view has a dual origin: it is rooted in the fiscal-military nature of the state and in the definition of efficient property rights. The first origin attributes much to the financial revolution that began in 1688. This revolution was manifested in the rise of taxation, borrowing and financial institutions (see chapter 6). There was a strong connection between the financial revolution and Britain's rise to world mastery in the eighteenth century. The creation of a large national debt enabled Britain to finance its navy and colonial armies. As a result, Britain could, and France could not, meet the challenge of increasing costs and distances of the new global and technological wars. A financial-military nexus emerged. Merchants, city financiers and parts of the aristocratic landed elite supported this nexus and benefited from it, and the British economy prospered. The Empire and the trade it generated expanded markets, enabled specialisation, and provided surplus capital and raw materials; the rest of the story is well known.

The second origin is institutional. The political and legal institutions of Britain, notably parliament, the common law and the constitution, created the preconditions for the functioning of the market. The state created institutions that defined and protected property and lowered transaction costs. These included tradable government bonds, bills of exchange, insurance schemes, joint-stock companies, patent law and contract law, among others. These institutional innovations facilitated the development of overseas trade, capital markets and technological inventions, and the rest followed.

Britain was not exceptional in that it had a minimal or idle government. On the contrary, Britain's representative and constitutional monarchy and common law judiciary created the most active state apparatus in Europe, one that tirelessly conducted wars and/or created property rights. This context for Britain's industrialisation shows today's policy makers that political reforms, such as the formation of a representative parliament and an independent judiciary, and the adoption of rights-protecting constitutions should be the first step on the road to industrialisation and wealth.

Neither of these two views, in their extreme versions, is adhered to by many historians these days. But they encapsulate the stakes in terms of historical interpretations, economic theory and contemporary politics. They may also provide a dialectic tension, beginning with the extremes

and moving to a more complex and refined synthesis. As such, I will use them as a motivating starting point for the present chapter.

Can these two historiographical views be reconciled? One route towards reconciliation emphasises timing. In the first half of the eighteenth century, Britain was a fiscal-military and/or credible property-rights generating state. By the middle of the nineteenth century it had been transformed into a *laissez-faire* state. Another route emphasises the division within British capitalism between overseas commerce and high finance on one hand, and provincial industry on the other. The government played a key role in creating the British Empire and facilitating overseas trade, but not in industrialising Britain itself. A third route argues that it is all relative. Compared to the seventeenth century, government in our period was big, while compared to twentieth-century governments, it was small. A fourth way of bringing together the two historiographical approaches is by saying that it is all a matter of where one aims the spotlight. There are numerous ways of viewing the role of government and each may point in a different direction. I will take this fourth route as my organising framework and examine, one by one, the role of the state in regulation, in ownership of enterprises, in fiscal activity and in defining property rights.

REGULATION

Was the British economy substantially regulated by the state during the industrial revolution? Was it becoming progressively more, or less, regulated? After examining the statute books up to 1700, one might conclude that Britain was heavily regulated. Here one finds laws regulating production (notably in the woollen sector), labour (the Statute of Artificers), movement of people (the poor laws), shipping (the navigation laws), overseas trade (various monopolies), maximum interest rates (the usury laws), note issuing (the Bank of England Charter), and the activity of stock brokers (a 1697 act later extended and prolonged). To this list can be added the Bubble Act of 1720 that regulated the formation of joint-stock companies. This is an impressive list that could suggest that the government was highly interested in the economy, had a clear economic policy and was able to implement it by legal-regulatory means.

Much of this regulation was abolished in the first half of the nineteenth century. The wage-fixing and apprenticeship requirements of the Statute of Artificers were repealed in 1812–13. The new poor law replaced the old poor laws in 1834. The East India Company's Indian monopoly was abolished in 1813. The Bubble Act was repealed in 1825, the corporate and note issuing monopoly of the Bank of England in 1826, the corn laws in 1844, the usury laws in 1854 and the navigation laws between 1850 and 1854. Can we conclude from this second list that eighteenth-century mercantilism and regulation were replaced by nineteenth-century *laissez-faire*?

While the statute book is a readily accessible historical source that allows statutes to be easily listed, counted and quantified, it is not very good for learning more than the basics of regulation. It does not answer two very essential questions: why were specific pieces of regulation passed and what was their impact on the economy? I will not expand here on the first question but I will elaborate on the second, arguing that the effect of the statutory regulation on the economy is far from straightforward. I would like to relate to two aspects in the discussion: the level of enforcement and the level of maintenance.

The level of enforcement of economic regulation was not uniform. Attempts to regulate the labour market, or more specifically the poor, the unemployed and young and temporary workers, were relatively successful. Here the interests of masters, estate owners and local gentry were aligned with those of the regulators. In the case of taxation, which was not only a source of income but also a regulatory measure, things were more complicated, as the interests of the state and of some of its tax payers were often in conflict. However, here the state invested great effort in enforcing its laws. By 1782 there were almost 8,300 full-time tax collection employees, an impressive number by contemporary standards. But when we examine other sorts of regulation, the enforcement picture is much gloomier. The Board of Trade had only 122 employees in 1782 and the number of employees in other departments who dealt with the enforcement of economic regulation was even smaller. Overseas trade monopolies and the navigation laws were evaded by smuggling and the forgery of documentation. Evasion of domestic regulation of the capital and goods markets required even less effort. Here the interests of traders, bankers, manufacturers and brokers often prevailed over those of the state. The lack of police and other enforcement agencies, the meagre number of administrators, the absence of public prosecution, the small budgets of the non-taxing civil departments of the government, and the lack of coordination, provide much of the explanation for the gap between regulation in the statute books and its effect on the economy.

It is argued that as the nineteenth century progressed, civil government expanded. The budget of its civil departments grew. Administrative personnel, particularly regulation inspectors, increased in number (MacDonagh 1958, 1961). The enforcement of regulation became more effective. Some historians debate the reasons for this administrative growth or the capabilities of the administrators, but not the general trend (Bartrip 1982; Harling and Mandler 1993). If enforcement was stronger in the middle of the nineteenth century, one can argue that the economy was more tightly regulated in this period than a century earlier, when regulation in the books was more extensive but regulation in practice weaker. To this one should add the fact that, while many regulations disappeared from the statute books, several important regulatory acts, including the Factory Act of 1833, the Joint-Stock Companies Act of 1844 and the Railway Act of 1844 (to which I will return), were added.

Much research has been done on the enforcement of various pieces of regulation and there is still plenty of room for additional research. The task is complicated because of the lack of primary sources and for various methodological reasons. Here, my aim is not to evaluate the level of enforcement in various sectors and periods, but only to reiterate the importance of the gap between the formal legal rules and the economic practice in any discussion of state intervention by way of regulation.

The weaknesses of Tudor and Stuart regulation were a result not only of inadequate enforcement by the executive branch but also of its drafting and maintenance by parliament. The ceiling on interest in the usury laws was bypassed by adding risk fees, by fictitiously increasing the sum of the original loan, issuing bonds below par, playing with exchange rates on foreign bills or adding profit-sharing elements. When parliament drafted the usury laws, it did not sufficiently account for enforcement problems or for the complexity of the credit market. A much more intensive and sophisticated legislative effort was needed to produce sustainable usury regulation.

Some regulations were not updated to fit the changing reality. For example, the Statute of Artificers applied only to vocations existing when the original 1563 law was passed. Entrants to newer professions were not subject to the seven years of required apprenticeship, to wage control or the like. Furthermore, the level of wages fixed in this statute had to be periodically updated to suit inflation and labour market changes. Parliament did not do this. As a result, the Statute of Apprentices and its offspring became increasingly detached from reality as time went on. This was not a problem of enforcement. Parliament needed to invest time and effort in drafting the regulation in a manner that would be sufficiently detailed and would address the complexities and variety of contexts of real life. It took maintenance work to keep the regulation current. The British parliament often did not do this. The navigation laws were a notable exception that demonstrated the investment required for real economic engineering, and, as such, emphasises the norm of inadequate legislative maintenance.

Crude legislative work, in turn, left much room for the judiciary. Generally speaking, regulation in the form of specific rules limited the role of ex-post judicial interpretation while regulation in the form of general and abstract – and often cryptic – standards called for such interpretation. The Bubble Act is a good example of the role of the judiciary in determining the effects of regulation. The act was drafted and passed in the period of the turmoil of the South Sea Bubble. It was hastily drafted and was intended to serve the immediate interest of the South Sea Company in advancing its scheme for converting the national debt. The act was not abolished in the aftermath of the Bubble and was not maintained thereafter. When it resurfaced in the early nineteenth century, again with interested parties acting as private prosecutors, judges needed to interpret

the vague sections of the act before it could be applied. The interpretation of some judges was that any business association that contained elements of limited liability or transferable shares was illegal. Other, more liberal judges read the 1720 act as prohibiting only companies that had fraudulent intentions (Harris 2000: 60–81, 235–45). Thus the effects of the Bubble Act on the economy were determined by judges rather than by legislators. There are other examples of the important role of the judiciary. I shall return later to one of these: the role of the judiciary in interpreting section 6 of the Statute of Monopolies, which was the sole statutory base of English patent law during the industrial revolution.

To complicate things still further, I would like to introduce the regulatory role of the common law, and to move directly to one of its most complex manifestations, the interaction between statutory regulation and common law regulation. It is sometimes argued that there was a tradition of economic liberalism within the common law which dated back to the early seventeenth century and to Edward Coke, a tradition augmented in the eighteenth century by Lord Mansfield (Atiyah 1979: 112–38). This tradition could not be fully manifested in fields well regulated by parliament, but when fields of economic activity were left outside of the realm of parliamentary legislation, or if parliament decided on deregulation, common law judges, so it is argued, could step in and ensure free markets.

I would like to problematise this claim. In several important contexts when parliament abolished outdated regulatory statutes, the courts stepped forward and sustained the regulation, this time basing the prohibition on the common law. An antiquated doctrine, of unclear origins, held that some forms of price manipulation in the market – forestalling, engrossing and regrating – were illegal. This doctrine was primarily directed at the market for essential food supplies, particularly corn. In 1772 parliament was persuaded to abolish the ancient statutes that fixed penalties for these offences. However, common law judges, in a famous 1800 case and on other occasions, maintained the prohibition and sanctions on these market practices. They held that the basis for this prohibition could be found in the ancient common law, and thus was not abolished by the repealing statute.

Similarly, when parliament intervened in 1799 and 1800 and again in 1824 and 1825 to determine the legality of workers' combinations, common law kept resurfacing. The old common law crime of conspiracy was applied in the eighteenth century to workers who combined to raise wages. In 1799 (and in an amended version in 1800) the first nation-wide Combination Acts were enacted to void and criminalise combinations and contracts whose purpose was to raise wages, to decrease working hours, to reduce the quantity of work or to prevent persons from employing workers at will. The acts did not prevent employers from turning to a parallel track and suing on the basis of common law conspiracy.

Employers continued to do so in circumstances in which they considered that the common law would lead to better and swifter results than the statutory offence. The 1824 Combination Act proclaimed that workmen who entered into any combination specified in the act would be exempt from prosecution 'under the common law or the statute law'. By this, it not only repealed the statutory prohibition on workers' combinations but also pretended to abolish the common law offence. A year later the losing side was able to regroup and pass the 1825 Combination Act that repealed the 1824 act and with it the statutory intervention in the common law of conspiracy. What common law judges did thereafter was to interpret the act to determine, sometimes narrowly, the boundaries of its application. Outside of these boundaries, they continued to apply, often harshly, the common law of conspiracy against workers and their unions (Orth 1991). What the story of conspiracy strikingly demonstrates is that, though parliament was the undisputed sovereign, it could not create common law doctrines and it was considered poor form for it to declare common law doctrines void. Furthermore it is evident that the judiciary applied its own policies to the organisation of labour continuously between the eighteenth century and the middle of the nineteenth century and beyond. Its policies were shaped independently of enactment or repeal of legislation and of the ongoing political struggles in parliament. Judges tended to be more conservative than legislators because they adhered to ancient common law doctrines and precedents and were not influenced by the writings of political economists or by the lobbying of emerging social and economic interest groups.

My third and last example is that of the invention of a common law prohibition of the formation of joint-stock companies, after the repeal, in 1825, of the statutory prohibition, the Bubble Act. Interested members of parliament tried to repeal the Bubble Act. The Board of Trade decided to join in and lead the repeal itself. Lord Chancellor Eldon objected to the repeal. After failing to block the bill in Cabinet and in parliament, he declared that he viewed the formation of joint-stock companies to be illegal by common law. After the repeal, Eldon prompted common law judges to act accordingly, and some of the judges followed his lead (Harris 1997). This instance again demonstrates the interaction between statutory regulation and common law regulation. The Lord Chancellor here acted in three interchangeable capacities: as a member of Cabinet, as the head of the House of Lords and as a senior judge. This example is particularly perplexing because, when resorting to common law, Eldon and the courts could not find a single precedent on which to base their prohibitive attitude.

This mode of judicial decision-making, which compensated for the withdrawal of the legislator from the regulation of a specific issue by reviving common law regulation, can be interpreted as a manifestation of an interventionist and paternalist judicial policy. A conservative judiciary

attempted to block a more liberal and market-orientated government and parliament. I do not argue that all the common law judges objected to free markets and supported regulation. But I reject the claim of Atiyah and others that they were, on the whole, passionate supporters of economic liberalism. The judgements varied according to economic contexts, legal doctrines, judges and cases. If anything can be said on a more general level, it is that some of the key common law and Chancery judges of the closing decades of the eighteenth century and opening decades of the nineteenth, the heyday of the industrial revolution, including Chief Justice Kenyon, Lord Ellenborough and Lord Chancellor Eldon, were more, and not less, interventionist and restraining than their predecessor Lord Mansfield. A claim, based on parliamentary deregulation alone, that the British state became less interventionist in the nineteenth century, which ignores judicial re-regulation, is misguided.

To conclude, in order to advance the discussion of the regulatory role of the state in the period 1700–1850, we have to move beyond listing or even counting statutes. Different statutes had different scopes. Counting clauses is not sufficient either, because at times single clauses (as with patents and joint-stock companies) had considerably more impact than statutes containing dozens of clauses (like those that aimed at regulating a single sector in a limited region). Public acts and private acts had different impacts, but neither disregarding the private ones nor giving the two equal weight is sufficient. A move from the statute books to the real world is essential.

A good first step is studying the resources invested in enforcing the statutes – budgets and employees – but this is only a first step. Much more can be done to integrate local enforcement and private enforcement. Actual prosecution in court can teach us much. The court played a multiple role: it created common law regulation, interpreted statutory regulation and enforced both. Its role as a regulator is an important but often neglected facet of the regulatory scene. It receives less attention from economic historians than statutory regulation because cliometricians do not possess sufficiently good theories and methodologies to deal with it (Harris 2003). The only generalisation I am willing to espouse at this stage is that, in the books, regulation provides a very limited view of the forms and extent of the state's role in the economy. While awaiting further research on the actual effects of regulation, we shall turn in the next sections to other roles of the state in the economy that should receive at least as much attention as regulation.

PUBLIC VERSUS PRIVATE OWNERSHIP

While industry overall (with the exception of royal dockyards and arsenals) was in private hands during the first industrial revolution,

infrastructure and utilities were not in purely private hands. Three of the most interesting examples of the complex mixture of private and public ownership are turnpike roads, water supply projects and railways. The failure of local government to maintain and improve the king's highways led to the development of a new institution, the turnpike trust, which first appeared in full in 1706 (see chapter 11). Turnpike trusts were created by acts of parliament, usually for a renewable period of twenty-one years. The acts named trustees who were empowered to raise money, conduct improvement works, close the road with gates and collect tolls from passengers. A turnpike trust did not have joint stock. Yet the money it used was private loans, not state money. The entrepreneurs involved did not receive dividends. Yet they benefited personally from its earnings by way of interest, salaries, freight hauling, etc. In fact, the state granted some property rights to groups of entrepreneurs over a section of road for a fixed period of time in return for investment in that road, subject to some regulation of the exercise of these property rights (Albert 1972; Pawson 1977; Harris 2000: 86–100). England did not privatise its king's highways. It created a private–public partnership, more or less along the lines of modern BOT (Build, Operate, Transfer) schemes.

Urbanisation took the government by surprise. Governmental reaction to the rapid growth of cities was, as we shall see in the next section, one of inaction. A notable exception was water supply. Here it is often assumed that the response was successful because the central government stepped aside, pushed aside local government, and let privately owned enterprise in. Entrepreneurs who raised capital on the stock market petitioned parliament for incorporation and then invested large sums in developing sources of drinking water, bringing the water to town centres and distributing it through a newly constructed network of mains and pipes. Is this another example of the positive role of the market and of private ownership in the unfolding of the industrial revolution? No. Things in fact were more complicated: the state played various roles in the functioning of these seemingly private companies. Until the passage of the General Incorporation Act of 1844, the state controlled the use of the corporate form. Until that time, parliament incorporated some water supply undertakings and refused to incorporate others. At the time of incorporation, parliament determined two major aspects of the activity of the water supply companies. First, parliament determined the limits on the powers of these companies to infringe on the property rights of city dwellers in order to construct pipes and works. Second, parliament determined the level of competition in the field when deciding whether or not to grant regional monopolies.

In the case of London, the New River Company achieved a dominant position by the early nineteenth century, acquiring or driving out of business most of its eighteenth-century rivals including the London Bridge Water Works and the York Buildings Company. In 1806–7, parliament

authorised the incorporation of the West Middlesex Company and the East London Company and the two began competing with the New River, one invading its eastern neighbourhoods and the other its western areas (Rudden 1985; Foreman-Peck and Millward 1994). A decade of competition drove down prices but also the quality of service, and parliament was again called upon to act. The next decades were marked by an attempt to divide London into one-company monopoly districts and at the same time to regulate the quality of water and service. But important issues such as the responsibility of water companies for cholera and typhoid epidemics, for drains and waste water, or their obligation to provide water to every household within their territory remained unsettled. This led to the establishment of numerous Royal Commissions and Select Committees and to the passage of many general and private acts of parliament. Edwin Chadwick became the leading mid-nineteenth-century reformer in this field. He proposed to consolidate the water supply companies and local sewers commissions into a single public body. While this proposed body was being discussed in parliament, he exchanged ideas with John Stuart Mill regarding it. What is interesting about this exchange and about much of the contemporary discourse as a whole is the consensus that existed as to the undesirability of private companies. Unlike Adam Smith who, three-quarters of a century earlier, had viewed water supply as a sector that should be in the hands of private joint-stock companies (as opposed to individual entrepreneurs), Mill believed that it should be in public hands. The discussion dealt only with the nature of the public body: should it be central or local, should it be staffed by elected representatives or by professional experts (Schwartz 1966)? In the end, the lobby for the water companies was able to block Chadwick's centralisation proposal for a while longer. But even so, water supply was not truly private. At the supposed heyday of *laissez-faire* and entrepreneurship, the state was engaged in massive regulation of water supply and seriously considered its nationalisation.

Railways provide another interesting example of the presence of the state as a factor in the development of infrastructure and of the link between regulation and public ownership (see also chapter 11). When the first railway scheme, the Stockton and Darlington, was conceived in the early 1820s, its promoters had to turn as a first step to parliament. An act of parliament was needed both for incorporation of the railway company and for enabling land expropriation. This involved the state in the development of the railway sector, beginning with the very first line. The value of the technology itself was discussed in the House of Commons. An elaborate set of standing orders made parliamentary scrutiny very detailed and expensive. Every bill went through a trial-like process in which its technical, financial and legal aspects were examined and all affected parties heard. By controlling entry, parliament not only shaped individual projects but also the formation of the network and the level

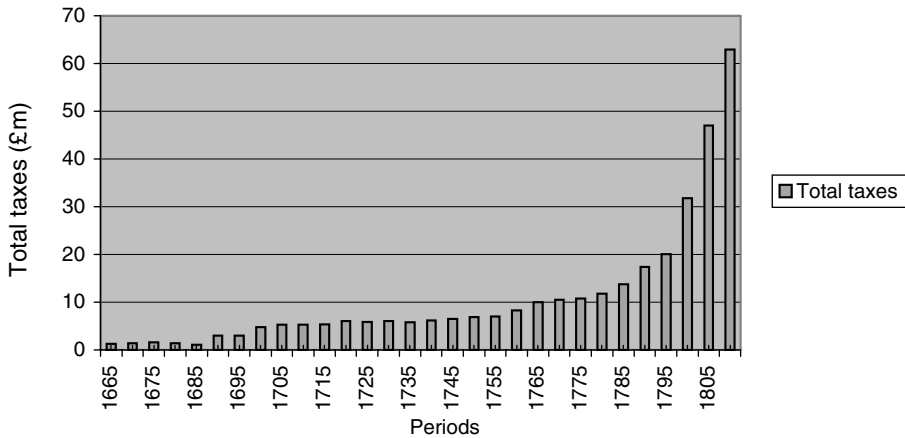
of competition (Kostal 1994: 110–43). This was not done intensively or through any coherent policy. Until 1844, state intervention was felt primarily by way of private bills incorporating specific companies. In that year, a major general statute, Gladstone's Railway Act, was passed. This act, comparable in scope to the Interstate Commerce Act (which was the first major federal regulation of big business – railways – in the US and has been widely studied by historians), has not always received the attention it deserves. It regulated various aspects of the services and rates of the railway companies. It strengthened the Board of Trade Railway Department so that it could supervise the implementation of the regulation. It required railway companies to issue financial reports. Most importantly (and unlike the ICC Act), it empowered the state to buy out, twenty-one years after their authorisation, railway companies formed after 1844. In fact, in the heyday of *laissez-faire*, parliament enabled the government to nationalise much of Britain's railway network, an option the state did not exercise when it became relevant in the 1860s. But the existence of the threat influenced business practices, prices and profits in the sector and facilitated the passage of more substantial regulation in 1868 in return for relinquishing the nationalisation option (Parris 1960; McLean and Foster 1992; Foreman-Peck and Millward 1994).

Thus the commonly held view that British economic growth was achieved by private enterprise is only partly correct. Manufacturing was indeed in private hands, but, as shown in this section, infrastructure and utilities were not purely private. The state not only authorised and shaped the undertakings in these fields, but in some cases also retained a degree of control over them or considered nationalising them. As we shall see in the next section, the state also played a significant role in encouraging and subsidising overseas trade, particularly within the expanding Empire.

FISCAL POLICY: TAXATION AND EXPENDITURE

The 1970s and 1980s witnessed renewed interest in examining the role of government in the economy through its fiscal, rather than regulatory, activity. I will sketch this trend, beginning with revenues, in the form of taxation and borrowing, and moving on to expenditure. Taxation was on the rise during the eighteenth century. In the century beginning in 1715, tax revenues rose tenfold in current prices and about fourfold in constant, inflation-adjusted prices.

The increase is lower, but still significant, when adjusted to the increase in population (an increase of 250 per cent) and to the increase in production (its proportion of the GDP rose from about 10 per cent to 18 per cent – though these figures are more tentative, as are GDP growth figures). The rate of rise in taxation in Britain was considerably faster



than in France, and probably the fastest in Europe. The real burden of taxation (relative to production and to population) in Britain by the middle of the eighteenth century was about twice as high as in France – its chief rival – and by the close of the century about three times as high (Mathias and O'Brien 1976).

The composition of tax revenues was changing. The most remarkable change was the decline of direct taxation on manifestations of wealth and income and the rise of excise, levied on the purchase of consumption goods. The share of excise in total tax revenues rose from 26 per cent at the beginning of the eighteenth century to 50 per cent in the middle of the century, and decreased very moderately thereafter. The share of direct taxes decreased from 36 per cent to 15–20 per cent (to increase sharply for a few years during the Napoleonic Wars with the introduction of Pitt's short-lived income tax). It was argued that the shift from direct to indirect taxation had considerable redistributive effects (O'Brien 1988). While the rich carried much of the burden of direct taxation (on land and houses, servants and carriages), excise was levied mostly on basic consumption (salt, bricks, printed cloth, domestic spirits, etc.) of the middle and even the lower classes. The magnitude of the redistribution and the question of how much tax was paid by each social group, and the more complicated question of whether the social groups that paid more actually carried the burden or shifted it elsewhere via the market, are still being debated.

The state revenue system experienced two institutional transformations late in the seventeenth century, transformations whose effects on eighteenth-century government was immense. While during the Tudor and early Stuart reigns, non-parliamentary revenues (crown income, sales of lands and monopolies, and mint profits) comprised about 75 per cent of total revenues, these dropped to about 3 per cent of the total after the Glorious Revolution. This put parliament in control of the revenue side of British fiscal policy. The system of tax collection changed after

Figure 8.1 Total tax revenue, 1665–1805

Source: O'Brien 1988: tab 4.

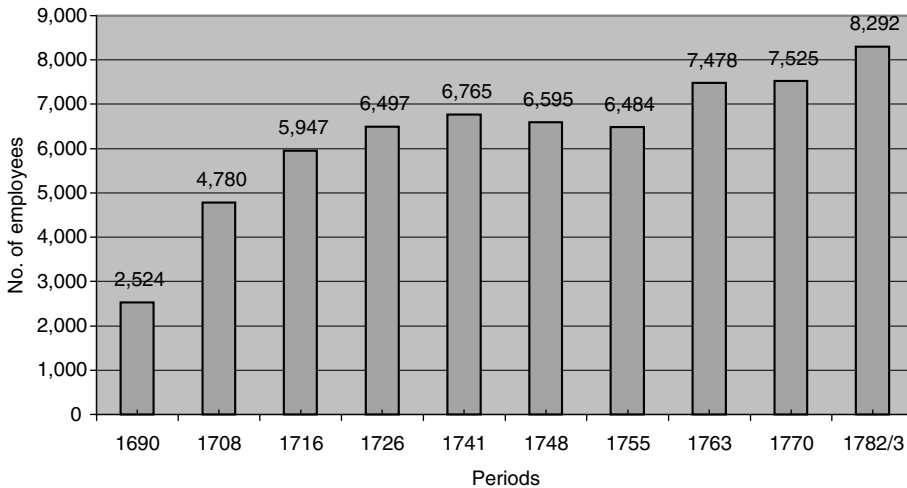


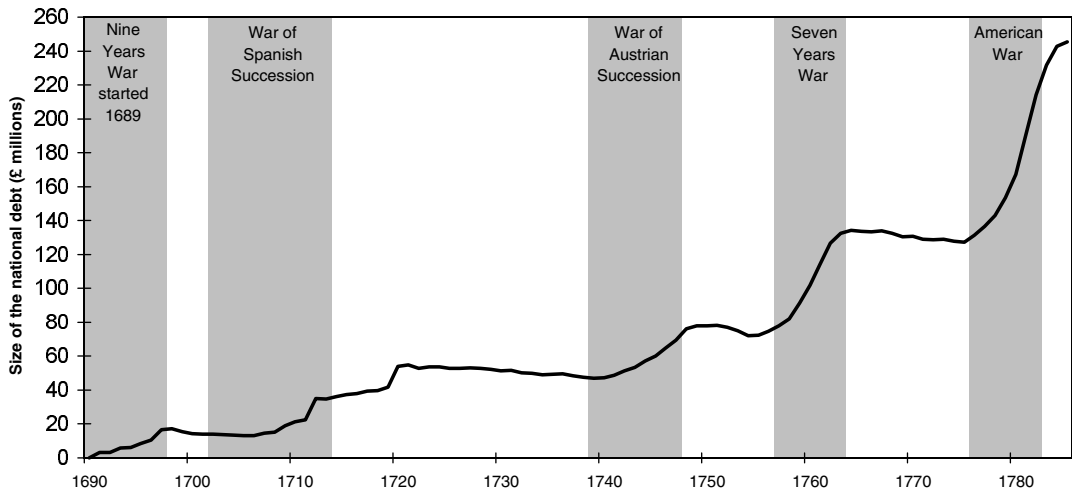
Figure 8.2
Employees in fiscal
bureaucracy,
1690–1782/3

Source: Brewer 1988:
tab 2.

the Restoration and the Revolution from tax farming² to direct collection by government departments. This was reflected in the growth of the tax collection bureaucracy from a few hundred employees during the Interregnum to 2,500 in 1690 and to over 8,000 in 1782/3, making revenue department employees by far the largest group of government employees (Brewer 1988).

The transformation of taxation in terms of overall revenue, composition and the levying and collection institutions, had far-reaching political and economic consequences. Among others, it created the precondition for another major transformation: the creation of the national debt. A variety of institutional novelties coupled with the changing tax system to bring this about. They included the subjection of the crown to parliamentary supervision through the Bill of Rights; the linking of loans to specific taxes that were supposed to provide the assured stream of income out of which interest would be paid – the so-called funded debt; and the incorporation of the Bank of England as a pivot that connected private lenders with the Exchequer. These political-constitutional-institutional changes were completed by the time the Hanoverians arrived in 1714. They enabled the Hanoverians, so it is argued, to make the credible commitment that they would repay what they borrowed. This was a novelty, because the Stuarts had been unable to convey credibility in the previous century, both because of their practice of forcing loans and stopping the payment of debt, and because they did not create institutional safeguards that would prevent them from repeating these practices (North and Weingast 1989; Weingast 1997). I shall examine the actual credibility of the Orange and Hanoverian crown in the next section. Whatever its cause, the result

² Under tax farming, private institutions paid the government a lump sum fee for the right to collect tax. This transferred both the cost of collection and the risk of default from the government to the private contractor.



of the change was stupendous. National debt jumped from around £1 million in 1688 to £15m a decade later, to £78m in 1750 and £244m in 1790. The trend was remarkable, and indeed exceptional, by European standards (Dickson 1967).

What did the government do with all the new resources, tax and loan money, at its disposal? It conducted wars. Total expenditure fluctuated considerably between war years and peacetime. The task of the newly created national debt was to flatten this fluctuation and enable massive government military expenditure during war years, to be repaid by tax money in the years of peace that followed.

Eighteenth-century British expenditure was pre-modern in the sense that it was mainly military. But its size constantly grew until it reached a modern scale, enabling Britain to operate more ships and soldiers in more remote parts of the globe than in past centuries and most importantly on a scale with which the French fiscal system could not compete (Kennedy 1987; Brewer 1988; Ferguson 2001; see also table 8.1).

How did these military expenses contribute to Britain's economic growth? Wars disrupt trade and bring destruction and casualties. But a nation that is able to win wars can minimise these and partly offset them by spillover effects, territorial expansion and, in the long run, also by increasing trade. It is argued that the British regime tended to wage more profitable wars than the French regime and to have the means ultimately to win these wars (Hoffman and Rosenthal 1997). Britain was able to fight its long eighteenth-century wars on foreign soils, spend

Figure 8.3 Growth of national debt, 1690–1780s

Source: Brewer 1988, Fig. 4.6.

Table 8.1 Size of navies, 1689–1815 (Ships of the Line)

	1689	1739	1756	1779	1790	1815
Britain	100	124	105	90	195	214
Denmark	29	–	–	–	38	–
France	120	50	70	63	81	80
Russia	–	30	–	40	67	40
Spain	–	34	–	48	72	25
Sweden	40	–	–	–	27	–
United Provinces	66	49	–	20	44	–

Source: Kennedy 1987, Table 5.

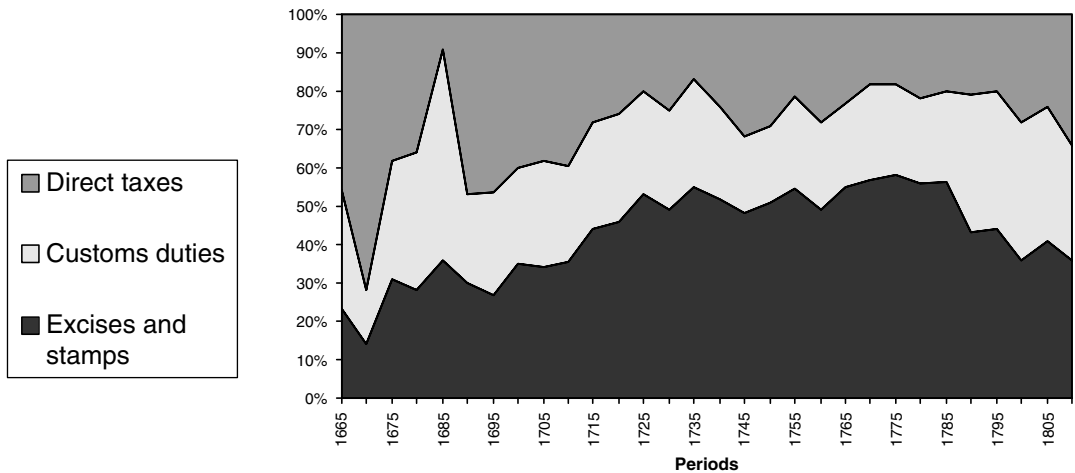


Figure 8.4 Allocation of government expenditure, 1665–1805

Source: O'Brien 1988: tab 1.

more money on them and win more of them. In this way, it improved its relative political and economic position *vis-à-vis* France, Spain and the Netherlands.

Wars have been fought throughout human history, by all regimes and nations. What was unique in eighteenth-century Britain, and thus is relevant to our discussion, was how the wars were financed. A central aspect of the financial revolution was the emergence of a stock market. The state, wishing to borrow money from private individuals, issued bonds. Primary and secondary markets in government bonds soon appeared. These featured specialised brokers and jobbers, trading techniques, meeting places, investment and information networks, regulation, and a stock market press. A market in corporate shares soon followed (Neal 1990; see also chapter 6 above). In a sense, the share market enjoyed positive externalities of the government bond market. Its players were free riders on the bond market institutions. By the canal age, the share market, together with the bond market, was well established, and with the advance of the railway the former surpassed the latter in volume (Michie 1999; Harris 2000: 168–98, 216–23).

Can we conclude that the government played a major role in the formation of a share market that, in turn, financed industrialisation? To answer this question we need to address several elements. I will deal with only one of them, the assertion that the government bond market and the corporate share market competed with one another. One manifestation of this assertion is the application of the 'crowding-out' discussion in fiscal policy to eighteenth-century Britain. In our case, the idea is that the British government attracted investors who would otherwise have invested in the private sector (Mokyr 1987; Williamson 1987). During the most critical phase of industrialisation (1789–1815), the British government raised unprecedented sums of money in order to finance its

costly involvement in the Revolutionary and Napoleonic Wars. This, so the argument goes, hampered the rate of investment and growth in the industrial revolution.

Did the government bond market create the share market or compete with it? Probably both. But while the benefits for the share market from the prospering of the stock market are tangible, the disadvantages are not. Contemporaries did not believe in a crowding-out thesis. A few ultra-conservative politicians expressed the concern that the rise of the share market would curtail the government's ability to raise money for fighting the next war (Banner 1998). But the key economic ministers did not hold such views and businessmen did not express reverse concerns. Despite the rise of the share market, with every war the government was able to raise more money, peaking in the years after 1789. This did not prevent the investing public from engaging in speculative investment in the private market in wartime: during the canal mania of the 1790s and the share boom of 1805–7.

This presentation of the problem at hand is somewhat simplistic because the distinction between private and public markets and funds is not always clear (Alborn 1998). The Bank of England and its stock had characteristics of both. The conversion of the national debt into South Sea Company shares in 1720 also blurred this distinction. The ever-important case of the East India Company further complicates any attempt to distinguish clearly between a government bond market and a private share market. The money raised by this company was used both for overseas trade with India and China, and for financing the Company's army and other expenses related to the conquest and governing of India. In fact, turning India into the 'Jewel in the Crown' of the British Empire was a joint private–public venture. Thus even if the two markets competed for investors, the moneys they raised often ended up in the same place. Furthermore, government stock attracted foreign (particularly Dutch) investors and risk-averse investors such as widows, orphans and trustees who would not consider investing in even the most solid shares. This suggests that the markets complemented each other, attracting investors of different types.

So far we have discussed revenues and military expenditure. The British state between the years 1700 and 1850 was indeed a warfare state, not a welfare state. But does this mean that it performed no other functions of the modern state? Some such functions – education, housing, environmental protection and medical services – were provided on a very low level, by modern standards, up to the middle of the nineteenth century. The government devoted no administrative employees or budgets, and almost no parliamentary attention in the form of commissions or legislation, to these spheres of activity.

Results of the passivity of the government were vividly felt, and can be best exemplified by the state of the rapidly growing industrial towns.

These towns were speedily built from the start, with minimal investment in social overheads. The consequences were familiar to contemporaries from Chadwick to Engels and are confirmed by modern research. The underinvestment in infrastructures such as roads, pavements, lighting, drainage, water supply, sewage and public building had immediate effects. The towns were ugly, crowded and polluted, breeding high mortality and morbidity. The economic effects of this underinvestment are debatable. Williamson stresses the possibility that higher investment in towns could have left less available capital for investment in industry. In addition, higher investment in towns might have had to be borne by the poor urban population in the form of higher taxes or lower wages (Williamson 1994). This reminds us that there were no free lunches and that the state as such could not carry the burden of social overheads for the fast-growing towns. But the state could determine the trade-off between producing more commodities and having a healthier environment, or between a higher real wage and a better overall quality of life.

Other state functions to which twentieth-century central governments devote a large share of their budgets were performed in our period with very low central government expenditure. The English criminal system is a good example of a function that was performed cheaply by the central government. The low costs were achieved by a combination of factors, some dating back to the early days of the common law and some to eighteenth-century measures. Henry II and his successors constructed the superior royal courts as low-cost, high-impact courts. No more than ten to twelve judges sat on these courts at any given time throughout their history and only three or four of these were normally involved in criminal litigation. Several devices, including the assize system, the jury, the adversarial procedure and court fees, transferred much of the costs of operating this slim system to the parties and communities involved (Baker 1990). Lesser criminal offences were tried by the quarter sessions, local government courts. Justices of the Peace, whose main duties involved local administration, presided over these courts (Landau 1984). Though the central government partly supervised these local institutions, it did not finance them with Treasury money. Policing and prosecution was also to a large degree the responsibility of local government, at the parish and county level. The victims themselves, the informers, the locally hired watchmen and private prosecution associations complemented the system (Beattie 1986; Hay and Snyder 1989). Only after 1829, and more so after 1856, did professional police forces and state prosecution officers appear. The punishment structure was another means of economising on state costs. The introduction of capital punishment for a large number of offences in the eighteenth century, the 'Bloody Code', to compensate for the low level of prosecution, enabled the maintenance of higher deterrence levels at lower cost. Transporting and whipping, which were less expensive than imprisonment, were the most common punishments.

Interestingly, imprisonment was used primarily for the collection of civil debts and thus paid for primarily by the debtor or the creditor. An important element in reinforcing the system was its marketing; to increase its legitimacy, it was packed with majesty, justice and mercy (Hay and Snyder 1989). All these measures amounted to an unorganised, unprofessional and decentralised, but low-cost, system of keeping public order.

A differently structured system enabled the state to ensure the provision of relief to the poor and the disabled, while rolling its costs on to local communities. The famous acts of 1597 and 1601 codified earlier Tudor laws and practices and defined the old poor law system. This system was in force until the new poor law replaced it in 1834. The old poor law was a framework created by the central government that compelled small local government units, the parishes, to bear the responsibility for relief to the poor. Each parish was responsible only for its own poor. Each parish had to finance the relief from its own sources. In order to do so, it was empowered to collect local taxes. Churchwardens and overseers of the poor in each parish were put in charge of implementing the law. They were granted the authority to fix and collect taxes and to allocate relief. Parish vestry and Justices of the Peace were obliged by law to supervise them. The law did not fix the details of taxation and relief, leaving much discretion to individual parishes. Indeed variations in the types and burden of taxes among parishes were maintained for a long period of time. In most parishes poor rates were collected from all occupiers of real estate. The total collection of this local tax increased sharply from £400,000 in 1696 to almost £4.5 million in 1802/3. To demonstrate the magnitude and growth trend of poor law collection, two relevant figures are worth mentioning: its amount rose from 0.8 per cent to about 2 per cent of national production and from 11 per cent to 21 per cent of central government direct and excise tax revenue (Slack 1990: 9–26).

Initially, the focus of the poor law was on vagabonds, beggars, and maimed and disordered soldiers returning from the wars, whom the central government expected the parishes to discipline and contain. The law's application was gradually extended to orphans, widows and elderly men. In the next stage, it was extended to poor able-bodied men. Until 1782, the law required that the able-bodied be entitled only to indoor relief; that is, relief on the condition that they reside at workhouses.

As we have seen, total expenditure of the old poor law increased tenfold during the eighteenth century. The real expenditure per capita increased only fourfold. This disparity can be explained by the spreading of poor law relief. While in 1696 the law relieved only 3.6 per cent of the population, by 1803, it relieved 14.7 per cent of the considerably larger population (about 9 million compared to about 5 million in 1696). By then more than 90 per cent of the relief was granted outdoors, much of it to the able-bodied. The timing and scope of the large-scale extension of relief to able-bodied men has been debated. Contemporary critics of the

old poor law, and generations of historians, pointed to the years 1782–95 as a major turning point. In 1795, the Speenhamland standard of relief that linked the level of payment to the price of bread and the size of the worker's family was introduced, and was soon legally adopted by many parishes, particularly in the south and the east. Generous payments, in the form of outdoor relief, to able-bodied workers became widely available. The level of total parish expenditure went out of control as it was linked to external factors – the birth rate and the price of wheat.

The problem with the rising expenditure was not only how to finance it. Unlike military expenditure, poor relief expenditure, which took the form of transfer payments, had more immediate and consequential effects on the incentives of individuals across the English economy. Contemporaries and historians were highly critical of the old poor law system in its late eighteenth- and early nineteenth-century incarnation. Adam Smith argued that it was detrimental to the labour market because it prevented labour from migrating freely to developing regions, particularly to towns, because workers lost their entitlement for poor relief as soon as they left their parish of origin. Thomas Malthus argued that the relief standards encouraged the rise of the birth rate and was bound to lead to overpopulation and demographic crisis. Nassau Senior and Edwin Chadwick, the dominant members of the poor law Commission, whose report led to the repeal of the old poor law in 1834, concluded that the law encouraged indolence, and worse, rather than checking poverty, led through a snowball effect to 'a universal system of pauperism'. Later historians stressed the damaging effects of the poor law to the rural parish economy as a whole, particularly to the yeomanry and to cottage industry.

In recent decades more attention has been given to the localised nature of the old poor law. The central government created a framework, but administration was on the parish level. The seemingly clear distinction between outdoor relief and indoor relief was blurred by historians. They emphasised the variety of types of workhouses, ranging from sweatshops to night shelters to elderly infirmaries, and of outdoor relief schemes ranging from allowances to the disabled, elderly, orphans and the like, to family allowances, to subsidy of wages, rotation in the employment of the poor among rate payers and employment of the poor by the parish itself, particularly in road maintenance (Daunton 1995: 447–74). Therefore, assigning able-bodied paupers to outdoor relief did not necessarily mean that they could avoid working, and assigning them to workhouses did not necessarily force them to work even if they were able to do so.

While parishes varied considerably in area and population, most of them were small enough (12,000 of the 15,000 parishes in 1831 had fewer than 800 inhabitants) to allow close personal familiarity. Thus, separating the able-bodied from the disabled was not based on clear formal, not to say legal, guidelines. The overseers, the rate payers and the parish community in general were more often than not familiar with the parish poor,

their abilities and motivations and their family history. Much discretion was exercised in each case to determine whether the individual pauper was able-bodied or disabled, or partly able, and to tailor the relief scheme to that individual, his or her dependants, and the conditions in the parish.

Economic historians, aware of this communal and regional diversity in the application of the poor law, gradually developed a more positive view of its effects. Blaug was the first to argue that by the late eighteenth century the poor law became an enlightened system for dealing with the significant seasonal fluctuations (say between midwinter and harvest time) in the demand for agricultural labour in arable farming and particularly in the grain producing regions of the south and east (Blaug 1963). Boyer (1990, 1997) suggested viewing the outdoor relief system within the framework of implicit employment contract theory. In areas of lower seasonality, such as the pasture regions of the west, annual employment contracts were preferable. In areas in which seasonality was high, seasonal layoffs complemented by poor relief during the seasons of unemployment was the selected institutional form. The advantage of this contractual form was enhanced by the distributional effect of the poor law. The redistribution was not from rate payers to paupers but rather from rate payers who did not employ wage earners (family farmers, shopkeepers, artisans) to labour hiring farmers (often holders of more lands) who could lay off their workers during the off season without letting them starve or migrate. The farmers in fact enjoyed a subsidy at the expense of the workers, as the sums they saved on wages were higher than the rates they paid to the parish. They could not have benefited from a similar subsidy had they employed their labourers on the basis of annual contracts.

More recently Solar (1995, 1997) suggested analysing poor relief as a form of insurance. In a way, this is an extension of Boyer's analysis from viewing the law as offering unemployment insurance to viewing it as offering all-inclusive social security coverage. Yet, while Boyer analysed the employers' perspective, Solar examined the workers' perspective. The irregularity of employment, the fluctuation of real wages, and the human life-cycle traditionally made land a more stable source of main or supplementary subsistence. The introduction of relief in England by way of the old poor law allowed individuals to switch to wage-earning work. Relief entitlements were sufficiently secure to allow them to take the risks involved in leaving the land or not settling on it when they had acquired the means to do so. As a form of social insurance, the poor law affected more than the 14 per cent or so that received relief in the early nineteenth century. It affected the decisions of all those individuals, numbering anywhere between one-third to four-fifths of English society, who lived near poverty and feared for their subsistence at some point during their life-cycle or at times of external crisis. The poor law was

an efficient form of insurance because of its communal nature, which limited problems of moral hazard, and its coverage of the whole population, which eliminated problems of adverse selection. It was generous and successful enough to be termed a miniature welfare state or a predecessor of the modern welfare state.

We now reach a stage in the historiography of the poor law in which many features that were considered to have negative economic impact in the past are now interpreted as positive features. The poor law enabled yeomen to leave their lands, facilitated enclosure and the formation of larger farms, allowed labour mobility, and even eased the pressure to get married and have children in the absence of an old age pension. But if the old poor law was so beneficial, why was it so harshly criticised by contemporaries and eventually replaced in 1834 by a new poor law? The new poor law pretended to replace Elizabethan paternalism with a modern system that gave primacy to the market, but, in fact, insisted on eliminating all that was economically good in the old law by centralising the system, ousting discretion and reinstating the workhouse requirement in order to stop outdoor relief to the able-bodied. A full discussion of the new poor law is beyond the scope of the current chapter. I will only suggest two explanations for this puzzle. One, that the new law was in many respects a codification of laws and practices developed before 1834 and represented a continuation of the old poor relief system rather than a break with it. Focusing on expenditure figures and not on legal changes, it is evident that change was gradual and fluctuated. Expenditures correlated not to the replacement of the old law by the new one, but rather to the long-term changes in agriculture and industry and the external shocks caused by wars. Expenditures rose between the mid-eighteenth century (decades before the legal amendments of 1782–95) and the end of the Napoleonic War in 1815, and began to decline thereafter, long before the old poor law was abolished (Boyer 1990: 1–43; Lindert 1994: 381–5). Another explanation is that the old law was abolished despite the objections of those who operated it and benefited from it: magistrates, farmers and rural labourers. The opponents of the new poor law were not ‘all the ignorant and timid around the country’ as Nassau Senior overconfidently stated. The new poor law may have been enacted as a result of the failure of liberal political economists’ theories to recognise the advantages of the old law, as a way to weaken the countryside and strengthen the centre, owing to a change in the balance of political power on the parish level between those who benefited from the old law and those who subsidised them, or because of a change in the ethos of the gentry (Mandler 1987, 1990).

The universality and comprehensiveness of its poor law made England exceptional by European standards. In other places one found either national systems that were badly financed and did not provide substantial relief; inadequate systems created by local governments that were

substantial only in affluent towns but may have been non-existent in rural areas; or voluntary charitable systems, not regulated by the state, that offered no legal commitment towards the poor. Assigning to English poor law a negative effect on growth when in fact it offered a higher standard of relief and when Britain was growing faster than the rest of Europe is perplexing. In this sense the current stage of the historiography of the poor law seems to be more in line with a comparative perspective.

PROPERTY RIGHTS

Since the 1990s, following in the footsteps of Coase, Demsetz, Alchian and North, economic historians have focused more of their interest on institutions in general and property rights in particular. This trend makes the state an important subject of study. The most important role of the state in facilitating economic growth is believed to be the way it defines and enforces property rights. Property rights regimes are less conducive to growth and wealth creation when the rights are undefined or vague, as this gives rise to common pool problems and to wasteful behaviour.³ This is also true when assets remain with individuals who do not put them to optimal use, because they cannot be easily transferred to users to whom these assets have higher value (Eggertsson 1990; Barzel 1997). England was able to perform the role of defining, enforcing and conveying property rights better than other European states (and on a par with the Netherlands). This, in North's view, laid the groundwork for Britain's rapid economic growth and political dominance (North 1990: 130, 139–40). I would like to discuss the formation and protection of property rights in Britain by delving into specific manifestations of property rights, in an attempt to bridge the more abstract discussions in economic theory and history and the more concrete discussions of legal historians.

The prime example given by North and Weingast of a growth-conducive change in property rights is that of the Glorious Revolution of 1688 and subsequent political developments that enabled the state to commit credibly that it would not confiscate its subjects' assets. Though they make some reference to the protection of property rights in all types of assets, the core of their argument deals with the rights of government lenders. The constitutional change enabled the state to convey credibly that it would repay its bond-holders. In addition, while the government was allowed to confiscate the assets of its subjects in the form of taxes, it was no longer allowed to do so without the consent of parliament (North and Weingast 1989; Weingast 1997). This in turn enabled the government

³ When assets are owned in common, there is an incentive for each co-owner to exploit the asset to the full, because any individual restraint will be undermined by the opportunistic behaviour of other co-owners. Thus common land tends to suffer from overgrazing, common fisheries from overfishing.

to avoid confiscating other assets, for example by expropriating land or forcing loans, in order to finance its wars.

The North–Weingast thesis provides important insights for the study of the English state and economy. Yet, some aspects of the thesis are problematic. The Bill of Rights of 1689, unlike the American Bill of Rights of 1789, did not limit the government's ability to confiscate property and did not require compensation for this. While it subjected the government's taxing power to parliamentary approval, the bill did not limit parliament's taxing powers, and did not require any representation or consent of those tax payers who were not represented or were underrepresented in parliament. In fact, as depicted in the section on fiscal policy, throughout the eighteenth century, tax burdens increased and money – and property – of underrepresented subjects financed the imperial-mercantile project of the overrepresented landed, financial and commercial elites.

Expenditure, unlike revenues, was not subject to parliamentary supervision by the constitutional revolution. The eighteenth-century English constitution, unlike the American constitution, did not contain an appropriations clause. In the aftermath of the Glorious Revolution, parliament attempted to achieve control over expenditures. However, it was unable to develop the administrative tools required for supervising a highly complex system of lists and accounts, paymasters and departments, suppliers and wage recipients, arrears and debts that was the British Treasury. As late as 1780, Edmund Burke still argued that the first lord of the treasury could not 'make even a tolerable guess, of the expenses of the government for any one year', and if he could not, parliament certainly could not (Roseveare 1973). A century after 1688, the fiscal system still did not provide parliamentary approved itemised annual budgets (Desan 1998). The issue at hand during much of the eighteenth century was the creation of centralised Treasury control over expenses, not parliamentary control over the Treasury. The accountability of the Treasury to parliament developed incrementally later and reached a landmark only in 1866–8. Even if state creditors were able to achieve some degree of supervision over borrowing and taxation, they did not achieve such supervision over the level of expenditure and its goals. The crown and the Cabinet could involve parliament, the tax payers and the nation as a whole in overseas wars and create budgetary deficits. State creditors could not ensure that the state would not become insolvent.

Undoubtedly, the constitutional revolution and institutional change made it more difficult for the government to default on its debts. But they were designed with the 'Stop of the Exchequer' of 1672 in mind. On that occasion, Charles II borrowed increasingly large sums, not against specific taxes but against the revenues in general, and at some point, for some years, the Exchequer had to stop paying the interest and principle on some of the loans, particularly those held by goldsmith-bankers (Horsefield 1982). The likelihood of a stop of this kind was considerably

reduced after 1689, when the linkage between specific loans and specific taxes was institutionalised. The establishment of the Bank of England created a barrier between public debt holders and the Exchequer but did not prevent the creation of credibility problems for the Bank itself during the crises of 1797 and 1825. The South Sea Bubble of 1720 was a harsh reminder to lenders that the government could still find ways to evade repaying debts even after it seemed to be bound to pay them. This time, instead of stopping payment as in 1672, the government, in cooperation with the South Sea Company, lured the public to exchange the high-interest and irredeemable debt for South Sea shares that turned out to be almost worthless (Dickson 1967; Neal 1990). Later governments found other ways not to pay their creditors in full.

Could the British state find better ways to ensure credible commitments that protected its subjects' property rights? The state used constitutional and legal tools in order to impose shackles on its own freedom of choice. A series of laws passed between 1689 and 1702, notably the Bill of Rights and the Act of Settlement, were intended to achieve this effect. The problem with attributing a committing power to these statutes was that they were not entrenched. Unlike the American constitution, and some later constitutions, the statutory elements of the English constitution could be amended by simple majority legislation passed according to the regular legislative procedure. While the American constitution limited the ability of state (and later also the federal) legislatures to expropriate property or breach contracts by regular majority legislation, the English constitution did not restrict parliament from doing so.

The dominant characteristic of the English political and constitutional system, both before and after 1689, was the sovereignty of parliament. This meant that parliament had the right to make or unmake any law whatsoever and that no other person or body had the right to override or set aside the legislation of parliament (Dicey 1915; Goldsworthy 1999). Two conceptions threatened to undermine this dominant principle: that of constitutional conventions and that of natural rights. The first, in one of its interpretations, entailed that parliament could not legislate contrary to some understandings and practices that had commonly been observed for generations. The second held that there existed natural and universal principles and rights that were above parliament-made law. It is important to remember that in eighteenth-century Britain these conceptions were entertained primarily by political philosophers and legal theorists, but were marginal in actual political discourse and constitutional doctrine. In these, the principle of the sovereignty of parliament was the mainstay. But even had they been more widely accepted, neither of these conceptions could have helped a government that wished to constrain itself and convey credible commitments. The government could instantaneously create neither new constitutional conventions nor operational natural rights. Furthermore, conventions or natural rights

could formally restrain parliament only in the presence of institutionalised judicial review of legislation. The growing independence of the English judiciary was evident long before 1688. But the judiciary was not granted, by the constitutional revolution or at anytime before or after the revolution, the power to perform judicial review, and it could not legitimately self-proclaim such power.

Therefore, creating credible commitment in England was a complicated matter. Constitutional and legal measures as such had limited value in advancing them. However, institutions were more complex than the laws that created them. The Bank of England could theoretically be dissolved through the same procedure by which it was formed: annulment of its charter or repeal of the act authorising it. In practice, such a move was not simple. Though the stock market, which had been established informally and was not sanctioned by any law, could be banned altogether by regulation, it was unlikely that the state would do this. This was partly due to institutional inertia. As the Bank of England developed the bureaucratic capability to handle the national debt, the Exchequer lost this administrative ability. As the public began lending money directly to the state (through the Bank), earlier lenders and brokers, such as the City of London and the goldsmiths, lost their ability to handle the lending. It was partly a matter of vested interests. Once a new set of institutions was in place, a variety of private interests clustered around it. These interest groups were likely to oppose further change (Olson 1982). In our case, such interest groups included Bank officers, Bank shareholders, stock brokers and jobbers, and ultimately the creditors of the state. Such groups lobbied the crown, the ministers and parliament. Their lobby was not necessarily based on representation nor on their electoral power.

The threat of removing a king, voting down a ministry or impeaching an office holder existed both before and after 1689. But it was not likely to be exercised for the protection of the property of those lacking political power. The political power structure remained a key factor in the stability of the system of public finance. As long as it held strong, it could convey, more credibly, commitments to preserve the property rights of lenders. In other words, the Whigs were linked to certain financial interests and, when in power, were able to protect their property rights, while the Tories were linked to other interest groups and tried to protect their property rights (Carruthers 1999). To sum up, constitutional institutions intermingled with informal institutions, institutional interests, individual interests and party politics to provide a growing, though not an absolute, degree of protection to the property of state creditors. Surprisingly, this mid-level of protection was not necessarily injurious to public finance, as evident in the fact that the crash of the South Sea Bubble did not set back the achievements of financial revolution.

Government bonds were one type of new property created and expanded during the financial revolution. In the remainder of this section,

I will discuss the construction and protection of three additional types of property: land, slaves and intellectual property in technological innovations.

Property rights in land were the major form of assets of the time. I will touch upon land only briefly because the issue is an extremely complex one that cannot be discussed here satisfactorily, and because it is extensively discussed elsewhere in the literature (Simpson 1986; Cornish and Clark 1989; Baker 1990; Getzler 1996, 2004). Property rights in land in the Britain of 1700–1850 did not develop in a way that the property rights school prescribes as encouraging economic growth. Private property in land was not well defined. Establishing rights in privately held land, in the absence of a formal system of registration of title, was a very cumbersome matter, both in terms of legal procedure and in terms of evidence required. Though there was a marked shift from commonly held lands in the open field system to privately owned land resulting from enclosure, the contribution of this shift to economic efficiency is debatable (Allen 1992; Neeson 1993; G. Clark 1998a; see also chapter 4 above). Land was not fully commodified and was not made freely transferable until the late nineteenth and early twentieth centuries. The main reason for this was conflicting interests of the landed elite. On one hand, this elite wanted to ensure continuity of family estates across generations and to guarantee its exclusivity in wealth and political power. This was achieved through various legal mechanisms such as the strict settlement, which prevented sons from transacting in family lands and dismantling their fathers' estates and forced them to pass the estates on to their own sons (Spring 1993). On the other hand, landowners wanted to be able to transfer their property rights in order to increase consumption and make use of non-landed investment opportunities. The basic tension between the two opposing motivations could be mitigated only very partially by various legal and business constructions such as the trust, the mortgage and the lease. As a result of the restrictions on transactions, lands were often not put to the most valuable use.

Property rights in land were not clearly defined and were not freely transacted, but were they effectively protected? Yes, in the sense that one subject could not deprive another of his lands by use of force, nor could the government routinely confiscate the lands of its subjects. But land was expropriated by the state for a variety of purposes. Most commonly land was taken by acts of parliament from its owners and given to promoters of transport and utility projects, such as canals and railways, docks and water supply (Kostal 1994: 144–80). In the USA, where property rights were protected by the constitution, taking of land was restricted and a complicated doctrine of eminent domain had to be developed. In some countries on the continent, where land could be arbitrarily taken by an absolute national or local ruler, things were apparently simpler. In a way, the British level of protection of property rights in land had advantages

over both stronger and weaker protection. In Britain, parliament served as a focal point, the meeting place of various interest groups. The promoters of a canal project had to negotiate in parliament with the landowners whose land the canal was to cross, mill owners whose water flow would be disturbed, and turnpike road trustees whose revenues might be reduced. Compensation in the form of money, exchange of lands or shares in the profits could be offered. The case of canals is only one of many examples. Parliamentary encroachment of property rights in lands, after due negotiation, could be found in many hundreds of private and public acts of parliament in the period 1700–1850. To be sure, the bargaining was done within state institutions, not on the open market. Land could be priced and transferred on the basis of the political influence of the contending groups. But nevertheless, land was likely to be transferred to those who would put it to more valuable use and was less likely to be transferred to those who could not increase wealth. The negotiations and the subsequent legislation involved considerable transaction costs, often higher than the contractual transaction costs. But this form of conveying rights in land had its advantages, as the conveying instrument was statutory and not contractual, and its enforcement was accordingly more effective. It is hard to imagine the unfolding of the transport revolution in a regime of strict protection of property rights. The English regime opened the door to expropriation of lands by private acts and enabled four modes of transport (river navigation, turnpike roads, canals and railways) to succeed one another between 1700 and 1850.

Slavery was an integral component of the triangular trade of the British Empire, whose core was in North America and the Caribbean islands. At the turn of the nineteenth century, slave-produced commodities, particularly sugar, were still the basis of the economy of the West Indies. By that time, the share of the Atlantic slave trade handled by British ships was the largest ever, almost 45,000 slaves annually, representing around 60 per cent of the total trade. This is not to say that slave-related trade represented a large share of British overseas trade or that it played an important role in industrialisation, neither of which was the case. But slavery was definitely essential for the business of many British individuals and companies. In 1807, parliament abolished the slave trade in the Empire. By doing this it not only regulated trade and deprived slave traders and their investors of their expectations of high profits. It also affected the property rights of West Indies plantation owners because the slave population there (unlike in the USA) was not self-reproducing. In 1833, parliament partially emancipated slaves in the colonies and in 1838 the process was completed, with full emancipation of all West Indies slaves. This was a blatant encroachment of property rights. Williams (1944) argued that the economic basis of slavery in the West Indies plantations died out gradually after 1776, and that abolition became possible only when slavery became unprofitable. If this was indeed the case, then the property

rights encroached were redundant. But most economic historians today dismiss this argument and claim that the slave-based plantation economy was doing well, and even strengthening, up to its abolition (Solow and Engerman 1987; Heuman 1999). It is clear today that parliament did expropriate valuable property rights. Nevertheless, there was nothing in the English constitution to protect slave owners from expropriation.

To be fair, it is important to mention that compensation of £20 million was granted to slave owners in the 1833 Emancipation Act. But this was not required by the English constitution. It was paid as part of a political compromise whose aim was to lessen the opposition of the West India lobby, which was still quite strong in parliament. But unlike the deals regarding expropriation of land for the construction of transportation networks, discussed above, here the deal was not between two economic interest groups. The anti-slavery movement was a popular movement, motivated by religious, moral and national sentiments (Colley 1992: 350–60). The pro-slavery lobby was outnumbered in parliament by the abolitionists and did not have equal bargaining power. It could not buy out the abolitionists even though its aim was pursuing a profitable business. The price paid for securing the legislation did not reflect the economic value of the property rights expropriated.

Comparison with the USA is again illuminating at this point. The import of slaves into the USA could be stopped only after the original settlement entrenched in the Constitution, which prohibited federal intervention in the slave trade, expired in 1808. As late as 1857, the US Supreme Court, resting on the protection of property rights in the Bill of Rights, invalidated an Act of Congress that prohibited slavery in some federal territories. As is well known, it took a Civil War and coercion by the North to amend the Constitution and abolish slavery in the USA.

A new type of property, defined and expanded during the industrial revolution, was intellectual property, in the form of patents. I would like to demonstrate the advantages of mid-level protection of property rights using the case of intellectual property rights and the history of patent law. Long before the industrial revolution, the English crown granted monopolies of various sorts. The later Tudors used grants of monopoly, among other things, to encourage foreign craftsmen and innovators to settle in England and make use of their skills and knowledge in the country. Elizabeth and the early Stuarts extended the use of monopoly to inventions by Englishmen. The crown viewed the grant of monopolies for inventions as part of its discretionary prerogative. The hostility of parliament and of the common law judges to the use of monopolies by the crown, as a means of extracting independent income and increasing political power, led to the enactment of the Statute of Monopolies in 1624. The statute prohibited the grant of monopolies by the crown without parliamentary authorisation. However, as part of a compromise,

a number of exceptions were made to this rule. Section 6 of the Statute of Monopolies exempts the grant of monopoly by way of letters patent for 'the true and first inventor' of 'new manufactures' for 'the term of fourteen years or under'. This section created the statutory basis of English patent law for the entire span of the first industrial revolution. It meant that the crown could continue the practice of granting monopolies on inventions at the crown's discretion. Such grants were not subject to any criteria or procedures. These monopolies were enforceable as any other crown patent, charter or franchise. Only in 1852 did a new patent law, establishing a patent office, replace it.

Does this mean that the English state had sufficiently defined intellectual property rights long before the industrial revolution? Or that it did not define them efficiently until after the revolution? Can patent law have explanatory power for the outburst of inventive activity specifically in England? In the second half of the eighteenth century, but not earlier? These questions cannot be answered on the basis of the Statute of Monopolies alone. As with regulation, here too, in order to advance our understanding, we need to encompass private and specific legislation; the practices of the administration with respect to granting and enforcing patents; and the role of common law and the judiciary with respect to interpreting the statute, expanding rules beyond it and handing down remedies for infringement.

Until the early eighteenth century, the crown manipulated the grant of patents for its own ends. Thereafter, the system was one of registration, involving time and money, but without an examination of the content of the patent or its value. After 1711, it became more common to ask inventors to append details of the method of their invention to their petitions. In some instances, the officers insisted on the inclusion of detailed drawings. By 1734, the request for specification became the standard practice, but it was only forty-four years later that this practice was embodied in the laws of England, not via legislation but as a result of Lord Mansfield's 1778 *Liardet v. Johnson* decision. The reports on this case are incomplete. They are based less on law reports than on newspapers and pamphlets and a brief mention in Mansfield's notebooks. Nevertheless, it is assumed that in this case Mansfield ruled that specification should be sufficiently full and detailed to enable anyone skilled in the general field to understand and apply the invention without further experiment (Adams and Averley 1986; Adams 1987).

Did the emergence of the new requirement for specification represent progress in the direction of creating more defined and enforceable intellectual property rights? A plausible explanation for the emergence of the practice is that as patents accumulated – many of them centred on a limited number of fields such as carriages, bleaching, oil and spinning – the task of the law officers of the crown became more complicated. They were obliged to grant patents only within the powers conferred to

them by the Statute of Monopolies, that is, only to new manufacture. They found it more and more difficult to determine whether a petition submitted to them was indeed for a novel method or machine. By asking for specification, they did not intend to put the petitions under their own careful professional scrutiny. They continued to register them as before. The idea was to transfer the burden from themselves to other interested parties (MacLeod 1988). In some circumstances, this also meant that the state was no longer a party to the ensuing litigation. An important implication of this shift was that the definition of the property rights of inventors was done *ex-post* and not *ex-ante*. Neither the crown officers nor the courts provided inventors with detailed rules regarding the submission of specifications. Inventors could go to the trouble of investing in experiments, specification, patenting, production and marketing, only later to face a court suit that would void their patent.

This indeed happened to some of the most notable inventors. Arkwright lost his 1775 carding machine patent in 1785 mainly on the grounds of unsatisfactory specification. In the process, he was involved in three trials over four years, losing not only the patent but also a great deal of time and money. Boulton and Watt were occupied for more than two decades with the validity of their 1769 fire engine patent. They realised at some point that it was not well specified, and their concern grew after Mansfield's 1778 decision in *Liardet v. Johnson*. They became involved in the litigation of other inventors, including Arkwright, in an attempt to achieve advantageous court decisions. They considered petitioning for a new patent. They lobbied parliament for an act that would prolong their patent, hoping that this would also protect it from invalidation. Finally, they reached a conscious decision to put up with a bearable level of infringements rather than risk losing a claim in court which would mean invalidation of the patent altogether. Only in 1794 did they dare to go to court, employing the leading lawyer of the time.

The problem of patent law was wider and graver than the question of specification. It resulted from the fact that the statutory basis of intellectual property rights in inventions throughout the industrial revolution was one old clause, Clause 6 of the 1624 Statute of Monopolies. The rest had to be created by judges who could not do much to expound the law when hearing only one case in the period 1750–69 and twenty-one cases between 1770 and 1799 (Dutton 1984: 69–85).

Since judges, unlike legislators, cannot set their own agenda, they depend on the flow of cases into their courtroom. In this case, the flow was less than one case per year, and many of these cases were decided on evidence or on minor points of law. To this, one should add the fact that creating detailed rules in this field of law was exceptionally complicated, because judges could not apply legal doctrines borrowed from other fields of law since they had to deal with technical issues unfamiliar to lawyers, and because the nature of innovations was changing rapidly. A

Table 8.2 The number of patent law cases, 1750–1849

	1 Patents granted	2 Cases	3 Patents disputed	4 2 as % 1	5 3 as % 1
1750–69	297	1	1	0.3	0.3
1770–99	1,418	21	16	1.5	1.1
1800–29	3,510	61	50	1.7	1.4
1830–9	2,453	47	38	1.9	1.5
1840–9	4,581	128	104	2.8	2.3

Source: Dutton 1984: Table 8.2.

manifestation of the unsettled state of patent law can be found as late as 1795 in a note written by Watt himself listing ‘Doubts and Queries upon Patents’. The eight queries on Watt’s list can be classified into four main issues. What is patentable? What should be included in specifications? What is the relationship between newer and older patents? What kind of use of monopoly power will be considered illegal? Only well into the nineteenth century, with the increase in litigation and the formation of a series of parliamentary committees leading to the 1852 act, did more detailed and settled rules begin to emerge.

But was the unsettled nature of patent law detrimental to the rate of inventions and to economic growth? Khan and Sokoloff (1998) argue that property rights in technological innovations were broader and better defined in the USA than in Britain. In the USA, eight federal patent acts were passed between 1790 and 1842 while in Britain the first act to be passed after 1624 was the 1852 act. As a result, US patent law encouraged a higher level of inventive activity among more varied social groups and in a wider array of industries. This claim is not unquestionable. Measuring inventive activity and its impact on economic growth is a tricky business. Britain seems to have done quite well in terms of inventions and growth in the period discussed here. It is not clear that the USA did better. Many contemporary Europeans envied the British spirit of invention and patent system.

Furthermore, a patent law that would better define and more strictly protect property rights would have social costs. It could provide more incentives to inventors but it would also slow the rate of diffusion and increase the monopoly rent of inventors at the expense of manufacturers and consumers. It would result in the allocation of more resources to research that could potentially lead to patentable inventions at the expense of other inventions. What the English system offered was ex-ante incentives that sometimes only partly materialised ex-post (Mokyr 1990: 247–52). Some patents were invalidated by the courts, others were not strictly enforced. Infringement was quite common. Though inventors did not always extract in full the profits they initially expected to gain

from their monopolies, the incentives were sufficient for inventors to remain in business and to do well. The state was there to play around with the patent system when it led to undesirable results or when the inventor's lobby was strong enough. Parliament prolonged the duration of Boulton and Watt's patent from fourteen to thirty-one years. It made special grants to Lombe (when denying the renewal of his silk throwing patent), Crompton (who never took a patent on his mule) and Cartwright (who lost his patent to creditors). It granted small pensions to other inventors. But it granted no money to inventors such as Arkwright and Tenant, who prospered despite losing their patents. Not least in importance were the non-monetary benefits, in the form of prestige, ceremonies and patronage, granted by the state to its privileged inventors. When the state had a strong or symbolic interest in an invention, as was the case with the water chronometer (from which accurate longitude at sea could be calculated for the benefit of the navy and of merchant shipping), a special prize was offered in advance to increase incentives. It seems as though clearly defining property rights in advance was not necessarily the optimal contribution that the state could offer to economic growth. Other sorts of ex-post interventions, in the form of court decisions and private acts of parliament, had considerable impact on technological innovation and diffusion.

CONCLUSION

It used to be possible for scholars to conduct their discussion of the role of government in the British economy between 1700 and 1850 on the basic assumption of the existence of two distinct spheres: the market and the state. The questions they asked concerned how the first expanded at the expense of the second, or how the second interfered with the first. Theoretical and historiographical trends of the last few decades have blurred this clear-cut distinction between the state and the market. The state seems to have surfaced almost everywhere in the economy. It not only regulated markets but also created them. It not only protected property rights but also defined them. It did not either own enterprises or leave them to be owned by private individuals, but was also a partner in joint public-private undertakings, be they new modes of transportation or new imperial conquests. It seems more appropriate to speak now of the state within the economy rather than of the state and the economy.

It was not only the relationship between the state and the economy that was problematised. The state itself is viewed today as a less homogeneous entity. The early focus on central government policy or parliamentary regulation turned out not to be sufficient. We now devote more attention to private acts, to bureaucrats, to the judiciary and to local

government. The private bill procedure served as a venue through which conflicting interest groups could clash and negotiate. The state served as a mediator or a meeting place. Private acts reflected agreements between interest groups and forced resolution in disputes. They created and abolished monopolies; created regulations and exempted from regulations; defined property rights and expropriated property. Bureaucrats collected taxes, authorised expenditures, inspected compliance to regulations and registered property rights. The judiciary not only handled litigation but also interpreted parliamentary regulation and declared common law regulation. The judiciary itself was not uniform. It accommodated competing sets of doctrines and norms and competing courts and judges. Local government, from the county level down to the parish level, was involved in the economy in various ways through various bodies and office holders. Its activities were financed at times by the central government, at times by local taxes, at times by consumers and at times by private entrepreneurs. The central direction and supervision of these activities varied in degree. Often central and local functions intermingled.

The ever-important question, what was the contribution of the state to the first industrial revolution, has not been satisfactorily answered in this chapter. Was the British advantage over other European countries in having a representative and constitutional government? Such an advantage enabled the collection of more taxes and the borrowing of more funds. But this money was used for fighting wars and bringing about destruction to the benefit of the few, not for investment in infrastructure and welfare to the benefit of all. Did the English advantage over continental systems lie in the fact that the English had a common law and not a Roman-based legal system? Weber (1954) ascribed explanatory power in Europe's economic rise to the rationality of European law. Posner (1998) argued that the common law's logic drives it towards efficiency, and implied that it was a more efficient form of law than continental codification and legislation. But for Weber, England created a problem; its law was less rational and less systematic than continental legal systems and he found it difficult to explain why it was that the English, of all European legal systems, industrialised first. As we have seen in this chapter, English law did not seem to be particularly instrumental to business needs and did not define, transfer or protect property rights in a very efficient way. We are still left with the puzzle as to whether the peculiarity of the English common law encouraged or hindered economic growth.

The British way seems to have been the middle road: not an entrenched constitution but not royal despotism, not super-rational and organised Roman law but not total identity of law with politics, not completely centralised but not overly decentralised, not a state taken over by big business and robber barons but not a planned-from-above economy. Hind-sight shows us that something in this mix did the trick, since Britain experienced unprecedented economic growth, by both comparative and

inter-temporal standards, during the 150 years discussed here. But which elements of the mix contributed more to growth, which contributed less and which hindered it? More research by economic, political and legal historians, pragmatically employing the theoretical tools of the various disciplines and better utilising some of the less-explored historical sources, will be needed before a new synthesis can emerge.