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Chapter 3.
State and Private Institutions

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Introduction

Economic growth depends upon the political and economic institutions that distribute political power and those that enable or hinder how individuals deploy their wealth, talent, and effort. Institutions are the rules that constrain human behaviour and their enforcement mechanisms (North 1981, Greif 2006). Some of these rules are enacted by a public process while others are privately adopted; some are explicit (written down as laws or contract) and other implicit. Their enforcement can rely on public coercion, private third parties, or even reputation. Here we focus on formal, publicly enforced rules. Although one might be tempted to believe informal institutions waned with modernization, it is clear that many elements of social stratification have never had any formal recognition. Investment banking's history, for example, could not be told without repeated reference to reputation. But such informal institutions were comparatively less marked by the economic and social transformation of the period we consider. Then, many polities adopted written constitutions, formal legislative organizations, and recast their laws. Even Britain, where no formal constitution was set down, saw electoral reform and an explosion of legislative activity.

Economic historians have long emphasized the role of public and private institutions in ensuring prosperity; after a hiatus, development economics has come to similar conclusions (e.g. Acemoglu et al. 2001, Engerman and Sokoloff 1997, Banerjee and Iyer 2005). Over the past 30 years there has been much emphasis on credible commitments to property rights. In this light, England's early economic leadership sprang from the Glorious Revolution's institutional settlement (North and Weingast 1989). The great variety of political and economic, public and private institutions that prevailed in Europe is tempting ground for testing the validity of the largely inductive argument that has been made for Britain. The variation in institutions is extensive, and well documented in the archival record. Between 1700 and 1870, however, nearly all of the polities in Europe considered reform. All institutions, archaic or modern, were the result of a choice. Furthermore, in the long run all institutions are sub-optimal; only change can allow growth to go forward. Given that Britain was the most successful economy in the period it seems natural to use it as a benchmark. One should bear in mind, however, that the earlier successes of Italian city-states, Dutch provinces and Germany's later catch up proceeded with institutions that were hardly British. Finally, economists have been heavily focused on national output neglecting regional variation. The British institutions associated with the Industrial Revolution are equally connected to the Irish economy and the Potato Famine. Thus we tread gingerly.

It is also important to note that, if by 1870 the notion of state and nation had become interchangeable, this was not so in 1700. The territorial division of Europe into sovereign states has been a matter of extraordinary contention. Indeed states faced the perils of external rivals and the resistance of provinces to the centralizing efforts of national politicians. Moreover, although the boundaries of polities of the west of the Alps and the Rhine changed relatively little after 1700, that was not the case to the east. The recombination of territories in eastern and central Europe poses obvious problems for us. While we have made our best effort to consider the whole of Europe, this is not always possible. The most obvious complication comes to light we consider although taxes were levied everywhere, the entities doing so varied dramatically overtime. The polities that disappeared with Italian unification and those that came into being with the retreat of the Ottoman Empire serve as cases in point.

While economic historians have often written the economic history of Europe as driven by liberation from oppressive central rulers, in many place growth was driven by the liberation of market forces from geographic fragmentation and the array of local privileges and practices (Epstein 2000). These local privileges were also bulwarks against rulers' fiscal rapacity. In England such protections were essentially inoperative because it was a small country that from 1066 enjoyed the costs and benefits of a very centralized and unified set of institutions. We frame this chapter around this tension and seek to explores two central questions (1) How important were problems of sovereign expropriation relative to problems of fragmented authority? (2) To what extent did different parts of Europe adopt different institutions to solve similar problems in terms of property rights, infrastructure investment, and business law?

Our analysis puts far greater emphasis on international relations (i.e. war) than has been the case hitherto. Consider Alexander Gerschenkron's (1962) classic, "Economic Backwardness in Historical perspective." There economic innovation pushes public and private institutions to evolve while domestic political struggles may hold them back. That narrative is appealing for central Europe and Russia, where reform and industrialization came late. Even in this region, however, institutional change issued from the crucible of war (from French intervention in Italy in 1857 all the way to the war that raged at the time of the October Revolution in Russia). In the west of Europe, institutional change owes more to international relations than to industrialization.

An account of institutional change cannot leave aside the exchange of bullets and cannonballs any more than it can ignore the flow of ideas about political and economic institutions. Yet the interconnection of European polities did not bring about institutional convergence. Although in most countries reform led to more representation, higher taxes, legal innovation, and infrastructure investment, the mechanisms used to achieve these goals varied considerably. To some extent this is evidence of path dependence, but it was also the result of the desire of politicians to forge a national identity and thus to preserve differences between their institutions and those of their international rivals. We begin with a very broad issue, namely the evolution of political institutions. We then move through a more focused set of problems: taxation, commercial law, and infrastructure investment. While obviously incomplete, these topics allow us to highlight the key analytical issues in European institutional development between 1700 and 1870.

3.1 Political Institutions

Between 1700 and 1870 the institutional structure of European political units underwent a series of profound transformations that defy a simple systematization. We shall attempt to gain a birds' eye view of the legacy of this crucial period in European state-building by focusing on three broad trends: (1) Absolutism's continued rise from the sixteenth through the eighteenth century; (2) its complex replacement by constitutional regimes in the nineteenth century; and (3) the ascendance of the national state over both territorial empires and confederations of small sovereign units.

Territorial empires are the political-military structures through which a ruler or a state exerts control over multiple territorial entities, imposing different combinations of legal, economic and cultural uniformity. At any given time between the Roman period and World War I, Europe counted at least one empire, and for extended periods empires were rulers' favourite organizations. Since the beginning of civilization empires had delivered some of the most stable means of control around the globe; yet in Europe, in the last quarter of the second millennium, they succumbed to a tide of national states. One might well choose the Peace of Westphalia in 1648 as the death knell of European empires. The Habsburg and Holy Roman empires retained the title, but their control over territories other than their traditional bases was much diminished. The Ottomans' sway over their European lands was equally frail, even though they maintained stronger grips over their Asian territories. Certainly by the outbreak of the War of the Spanish Succession, at the very beginning of our period of interest, national states were gaining the upper hand in Europe.

Charles Tilly (1992) has traced the superiority of national states to their absorption of the fiscal extraction system and the military organizations into the administrative apparatus of the state. Early Modern European states, as most other political units in the world until then, had largely relied on indirect (decentralized) rule for their coercion and extraction needs. While centralization was known to be more efficient, it was also much costlier; Avner Greif (2008) argues that in the Middle Ages feudal lords settled on the cost advantages of indirect rule, an organizational choice that proved persistent. It also placed strict constraints on the ability of European rulers to extract resources from their subjects, wage war and control large territories. By the turn of the eighteenth century the tide was turning. Rulers increasingly took control of their fiscal and military structures, either shedding the layers of intermediaries on which they had relied to negotiate with the elites or incorporating them into the state bureaucracy. Sitting representative assemblies, quite common in the preceding five centuries, became rare; fiscal operations were wrestled from noble and ecclesiastical control and subject to central oversight; state finance ministries, often exercising a hefty dose of financial repression, increasingly substituted the bankers and capitalists to whom kings had often outsourced their borrowing needs; and professional mercenaries were replaced by standing armies, composed almost exclusively by nationals of the states they belonged to (Drelichman and Voth, 2008).

While not doing justice to the wide variety of European polities, this rough characterization illustrates what set the new states apart from the political structures they came to replace. The fate of the countries that did not implement them reveals their importance. The agrarian-based nobility of the Polish-Lithuanian Commonwealth based its power on the *liberum veto*, which allowed any member of parliament to nullify its acts and end the current session. As a result there was not much of a state in Poland by 1700. Reform, undertaken in stages between 1764 and 1791, came too late to prevent its partition between Russia, Austria and Prussia. A similar system in Hungary had resulted in its absorption by the Ottoman Empire in the sixteenth century. At the turn of the eighteenth, imperial control switched to the Habsburgs, but Hungary did not regain autonomy until 1867, when a weakened Austria was forced to accept the Dual Monarchy arrangement. As a rule, small states incapable of fielding standing armies and dominated by traditional elites were quickly absorbed in the sphere of influence of the great powers; Venice's loss of its thousand-years-old independence to Napoleon being the iconic example of the fate that befell commercial and aristocratic city-states across Europe.

Slightly larger states like the German principalities were likewise absorbed into the fiscal-military machines of their more powerful neighbours. The Swiss Confederation, a collection of patriciate-ruled cantons, was likewise overrun by the Napoleonic armies, although after the Congress of Vienna it managed to re-emerge in enlarged form and having acquired a government that could call itself central in some measure. Despite its loose organization, the Swiss managed to remain independent amidst the tug of war of France and Austria, illustrating the diminishing returns to the imperial model in Europe.

There were also two polities who were at the vanguard of change. Britain distinguished itself from the European norm with the construct of the Crown-in-Parliament and the other institutional innovations of the Glorious Revolution. The grand bargain of 1689 began a process whereby the kingdom acquired a representative assembly, a strong executive, a professional bureaucracy, and financial institutions designed to cater to the needs of the state; these "sinews of power" proved to be remarkably efficient in the consolidation of the state and the projection of military power (North and Weingast 1989; Brewer 1989). Many of these innovations were in fact imported or adapted from the Netherlands, the most successful of the handful of republics that survived in Europe. In the Dutch case, however, the process of change stalled and fiscal centralization, though long debated, did not become a reality until the French forced changes after 1795.

While representative bodies with actual power survived at the extremes of the spectrum of European states in the eighteenth century, the central mass was characterized by a marked shift to direct absolute rule. One of the main dimensions along which absolute monarchies can be classified is their success in eliminating the several layers of intermediaries -- especially the Church, the nobility, tax farmers, and local and regional courts, and assemblies consenting to taxes -- that were associated with Early Modern governments (Finer 1997). The degree to which such concentration of power at the expense of traditional stakeholders was possible varied widely, and was by no means irreversible. The elimination of intermediaries, a part of the enlightenment programme, took root with the most vigour in Prussia, Russia and Austria. These three countries were still in different stages of state-building when they became absolute monarchies, and their central governments encountered relatively little resistance from established stakeholders. Enlightened despots also ruled in Spain (Charles III and his minister Campomanes), Portugal (with the reforms pushed forward by chief minister Pombal), and Sweden (Gustav III); their reforms, however, were largely reversed by their successors. France made some strides under Louis XIV, who succeeding in co-opting the nobility and reducing the power of the *parlements* to block royal edicts. The French venal system, however, stood in the way of deeper reform. Offices were not only private and, by the eighteenth century, largely hereditary property; they also constituted one of the main forms of government debt, making it impossible to eliminate the system in the name of concentration of power. In the face of the resistance of the nobility to accept new taxes, France lacked the means to issue new debt issues. This handicap eventually determined her mounting losses on the battlefields, and prompted the search for more radical reforms (Bordo and White 1991, Brewer 1989; Ertman 1997).

The French *ancien régime* was the classic example of what Ertman (1997) has called "patrimonial absolutism," a system in which the different bodies that constitute the state are the private property of individual elites. After the reign of Louis XIV the privileged classes were able to use their control of state institutions, most notably the *parlements*, to defend their special interests against the several attempts at enlightened reform. The confrontation between the Crown and the elites over the distribution of the tax burden would eventually lead to the French Revolution and radical change in political and fiscal institutions.

History has witnessed few moments of creative destruction so encompassing as the French Revolution. From its very outset the National Assembly sought to eliminate the intermediary bodies of the old regime. *Parlements* were dismissed; local assemblies (Etats) abolished along with all feudal privilege; the Church was dispossessed of its wealth and most of its educational and welfare functions; and almost all guilds were dissolved. The National Assembly envisioned the creation of central bureaucracies staffed by civil servants as key to improving the essential functions of government. The Revolutionaries, however, were soon fighting for their lives, and their fortunes waxed and waned with the progresses and setbacks of French armies in the battlefield. The forces that had so completely wiped out all vestiges of the patrimonial regime eventually found themselves unable to give France a stable political order, a task that fell to Napoleon and that involved the re-emergence of an autocratic empire in Europe.

Napoleon's most lasting institutional innovation was the codification of civil law. Reform was necessary to uphold the Revolution's commitment to centralization and to fill the void created by the elimination of provincial and local legal privileges. Carried by French armies across Europe, codified law was also the Revolution's most significant export (to which we shall return in section 3.3). While the Restoration returned most of their power to the absolute monarchs that had been deposed by Napoleon, only the most recalcitrant ones, like Ferdinand VII of Spain, went to the trouble of completely reversing the legal innovations brought on by the French.

Napoleon was, above all, a brilliant military commander who harnessed the power of citizen armies. These human tidal waves were almost immediately embraced by the all the major powers. The diffusion of conscription on a large scale completed the state's integration of the military apparatus that had begun in the previous century. As with many military innovations, citizen armies came at a price and eventually forced changes in the structure of the state itself. The vast number of troops forced bureaucracies and administrations to evolve. The new type of conflict also carried a much larger cost in terms of lives. The Napoleonic Wars caused almost as many deaths as the Thirty Years' War in less than half the time; if the casualties of the French Revolutionary War are added to the tally, the dead mount to two and a half million, one third of the lives lost in World War I (Tilly 1992, p. 165-6).

Citizens who lay their lives at the feet of the state needed good reason to do so. Pension systems for the maimed and the families of the dead thus had to be set up, and rulers could not turn a completely deaf ear to increasing demands for representation in government either. The second and third quarters of the nineteenth century were thus characterized by what Finer (1997) has called the "constitutionalization" of Europe. Constitutions that survived more than a few years were overwhelmingly granted by sovereigns rather than proclaimed by revolutionary assemblies. Sweden led the way in 1809 (although, strictly speaking, it was reviving the 1772 charter of Gustav III), followed by Norway and a handful of German states in 1814-19 and 1830-34. After the fall of Napoleon new restrictive constitutions were enacted in France and the

Netherlands. Very few states followed until the revolutionary wave of 1848-9, when a large number of countries enacted liberal constitutions, many of which were later revoked or modified to reduce popular representation.

S. E. Finer characterizes four types of constitutions. Neo-absolutist charters preserved most of the power of the state in the hands of the ruler; some maintained legislatures, often representing the interest of the nobility and the landed elites, but with limited faculties. Spain (with the exception of its liberal periods), Holland under William I, Naples, Greece between 1843 and 1848, and a number of German states all fall under this category. The two other important types were the constitutional monarchies, in which power was delegated to ministers answerable to the king (e.g. Austria, Piedmont), and the parliamentary monarchies, where ministers responded to elected legislatures (e.g. Britain). The dividing line here is less defined, as most states started as constitutional monarchies but quickly evolved into parliamentary monarchies. For example, Austria was ruled with an iron hand by Metternich, who answered to the emperor alone; the revolutions of 1848 fatally weakened this system, and eventually resulted in the introduction of a parliamentary system in 1867. France oscillated between the two systems, with parliamentary rule between 1830 and 1848, reverting to authoritarianism under the Second Empire, increasing again the role of the legislature towards the end of the 1860s and finally becoming a parliamentary republic, the fourth type of constitutional state. By 1870 only Russia and the Ottoman Empire maintained absolute governments without constitutions.

The national states that came to dominate Europe during our period produced a wide array of outcomes in terms of political and economic freedoms. While long before

1700 there were many polities where some (male) residents had political rights, at that time nearly everywhere there populations that were not only disenfranchised but also bound in either slavery, serfdom or other labor arrangements that severely limited their freedom to accumulate wealth or migrate. By 1870 all areas of Europe save the Ottoman Empire has abolished slavery and serfdom, even where the political franchise remained non-existent or very constricted (Bush 1996). The increase in economic freedom, however, should not be overstated because for several decades after abolition workers in many parts of the economy had their mobility restricted by systems of passports that gave much bargaining power to employers. The evolution of individual freedoms resulted from the diverse interactions of constitutional processes, centralized states, and the emergence of citizen armies. Out of the tensions between the individual and the public sphere, the phenomenon of nationalism in its myriad forms emerged to play a defining role in the fortunes of the continent to this day.

3.2 Fiscal Institutions

In the eighteenth century European states raised revenue to fight wars. Whether they wanted to expand their dominion, or merely defend them, rulers had to pay their military (Brewer 1989; Hoffman and Rosenthal 1997). Europe's most powerful states, France, England, Prussia, and Austria in particular, funded either large standing armies or navies and sometimes both. They did so through a combination of taxation and wartime borrowing–the latter leading to an ever growing public debt. Governments who lacked sufficient resources were increasingly forced to ally themselves to the Great Powers, or pursue neutrality instead. Thus, Spain and the Dutch Republic, had to settle for second fiddle in European politics for lack of financial might (Van Zanden and Van Riel 2004; Tortella and Comín 2001).

Rulers were very much aware that taxation was the life blood of international competition, and that in turn coloured all domestic political processes. Hartmann (1979) has documented how in the summer of 1764 the French foreign minister, the Duke of Praslin, queried his ambassadors for information about the fiscal system in the countries where they were serving. At the same time Jean-Louis Moreau, Seigneur de Beaumont, *Intendant des finances*, drafted a report on taxation in France. Their reports, combined with data collected by modern historians, reveal the enormous differences in government revenues that existed in the mid-eighteenth century between European countries.

[Table 3.1 about here]

The revenues of European states in 1765 mirror the overwhelming financial strength of the two great powers, England and France (Table 3.1). The annual income of their major rivals, the Habsburg monarchy, Spain, and Prussia was two to four times smaller. Holland, often lauded for its ability to tax citizens, was a distant fifth with total revenues not that much different from Prussia or Sweden. This ranking reflects the political reality of eighteenth century Europe with France and England vying for leadership. It also shows that size mattered. For example, tax revenues per capita in the imperial city of Hamburg were as high as they were in England in 1765. The population of Hamburg (or any other city state, for that matter) was simply too small for the city to play an independent role in European politics.

Yet, precisely because of the differences in size, the revenues reported in 1765 cannot serve as a measure of fiscal intensity. When measured as a percentage of GDP it becomes clear that England extracted far more revenue from its economy than its major rival France (Mathias and O Brien 1976). Between 1665 and 1800 total revenue in England rose from 3.4 per cent of GDP to no less than 12.9 per cent. In France, on the other hand, taxes slipped from 9.4 per cent in the early eighteenth century to only 6.8 per cent in 1788 (White 2001). In terms of fiscal institutions, this put France in a lesser league of nations that included for example Sweden where central government revenues came to between 5 and 10 per cent of GDP for most of the eighteenth century (Fregert et al. 2005). The truly exceptional fiscal regime was Holland's: in the early 1740s government revenues amounted to at least 14 per cent of provincial income (Fritschy and Liesker 2004; De Vries and Van der Woude 1997).

The divergent ability of eighteenth century states to tax their subjects is confirmed by the measurement of their respective tax pressure as the number of (silver) day wages of unskilled labourers. The available data for the period 1740-1790 once again shows Holland as the fiscal champion with England catching up in the final decades of the eighteenth century (figure 3.1). In both countries in the 1790s the average person paid up to one month worth of daily wages in taxes. France's performance did improve between 1740 and 1770 but it trailed far behind England and Holland until the Revolution. The same was true for the Habsburg lands of Austria, Hungary, and Bohemia, where inhabitants never paid more than 13 unskilled day wages to the central government.

[Figure 3.1 about here]

One possible explanation for these differences is the substitution of indirect taxes like customs duties and excises for direct taxes on real estate, revenues from royal domains, or the sale of monopoly rights. England is the cherished paragon in terms of fiscal expansion. In 1765 land taxes brought in less than a quarter of total revenue. The remaining income was generated through import and export duties and taxes on consumer goods. Holland is the other obvious example, but here direct taxes on land, real estate, financial assets, and income still represented 43% of total revenues. France's direct taxes brought in roughly half of revenues at mid century (Riley 1986: 55-65). Countries like Prussia and the Habsburg monarchy, on the other hand, relied even more heavily on domain revenues, land taxes, and the sales of monopolies. In 1765 the rulers of the Habsburg lands (16%), the Austrian Netherlands (16%) and Prussia (31%) still drew a considerable part of their income from their own possessions (Hartmann 1979, 318) Spain also conforms to this image. Admittedly, over one third of its revenue came from customs and excises but the remainder stemmed from colonial remittances, monopolies, and land taxes (Tortella and Comín 2001).

But if indirect taxation was so much better, why did not other countries emulate England or Holland? Surely, it was not for lack of trying. European rulers were very aware of the financial policies put in place by their competitors, and they made a continuous effort to ameliorate their own fiscal systems (Bonney 1995, 428-430). After 1700 all the major players, and many of the minor ones, instituted central bodies to monitor tax revenues, they improved the registration of wealth holdings, and appointed specialists to consider tax reforms (Fritschy and Liesker 2004; Capra 1995; Irigoin and Grafe 2006). In the seventeenth century most states had levied excise duties on some scale, and in the eighteenth century experiments with incidental income taxation were undertaken by all main contenders in the European power struggle (O'Brien 1988;White 2001; Tortella and Comín 2001; De Vries and Van der Woude 1997, 112). By 1720 most rulers had understood the detrimental effects of the debasement of their currencies.

The actual collection of taxes may not have been the problem either. The vast majority of European rulers farmed out the collection of a large part of their taxes. Tax farming offered both short term credit and a steady stream of income. The downside to tax farming was the overhead cost. For Spain in the seventeenth century it has been estimated that as much as 40 per cent of revenues stuck to the fingers of the farmers (Tortella and Comín 2001). Tax collection by government officials could be much cheaper. In Holland, for example, direct collection in the second half of the eighteenth century cost between 8 and 9 per cent of total revenue (Fritschy and Liesker 2004, 57-62). Yet it would seem unlikely that rulers settled for too high deadweight loss. Indeed the cost of tax collection in France in the late 18th century may have been as low as that of England (Norberg 1994; Lindert 2004).

Following the seminal work of Peter Dickson on the organization of England's public finance, many economic historians today stress the crucial role of representative government. The Glorious Revolution of 1688 gave a central representative body the right to vote on public expenditure. In exchange for control over the Crown's purse, Parliament voted for higher taxes. Parliament's ascendance ran counter to the generatl gutting of representative assemblies that occurred in Spain, France, and the absolutist states of Eastern Europe. Here the Dutch Republic would seem to be the odd one out, for despite its representative government and high levels of indirect taxation, it could not raise enough money to continue the struggle for military primacy after 1715.

But the financial less successful states did not just lack parliamentary control of taxation and expenditure. These were also composite monarchies, amalgamates of numerous territories with their own traditional liberties, political structures, and fiscal systems. In France, Spain, and the Habsburg lands the central government tried but could not overhaul these institutional barriers that history had created (Dickson 1987; Irigoin and Grafe 2006). For instance, the inhabitants of the *généralités* of Paris, Lyon, and Rouen always contributed far more money *per capita* than the population of Brittany, Burgundy, or Provence (White 2001). Even the most successful fiscal regimes suffered from this kind of fragmentation. England had to settle for very low revenues from remote Scotland (O'Brien 1988). The central government of the Dutch Republic was engaged in perpetual negotiation about tax transfers from its seven provinces.

A related problem was that of local particularism. Many towns in early modern Europe had financial institutions far superior to those of the central government. However, traditional liberties allowed them to keep tax revenues to themselves (O'Brien 2001; Dincecco 2007). In France, for example, local control over the levy of land taxes made it difficult to change rates and raise total revenue. Besides, there were fixed tax quotas between towns and regions. The loss of income to the central government was particularly important when local economies were thriving, like the towns of Flanders and Brabant in the Austrian Netherlands, the urban republics of the Swiss Confederation, or the ports of Catalunya. Urban autonomy added another irreducible constraint on monarchies. In Holland a major political crisis (imminent defeat in the face of Spanish troops in the early 1580) was required before towns would hand over two thirds of local revenues to the central government (Fritschy 2003).

Finally in many regions, noblemen, clergy, and sometimes even larger sections of the population, benefited from tax exemptions. Old privileges or political clout did much to reduce the tax base of *ancien régime* governments. In order to maintain their standing in Europe, the rulers of France and Austria could not but revert to ad hoc fiscal policies which complicated rather than simplified the management of public finance (Dickson 1987; Bonney 1999). This was not just costly in terms of administration, the arbitrary nature of many emergency measures also reduced tax compliance.

Fiscal centralization was the obvious solution to these problems, but achieving this required a major redistribution of political power in all European states with the exception of England (Dincecco 2007). This is why the French Revolution and the subsequent Napoleonic Wars were so important. France had to raise taxes and loans to finance its conquest of Europe; the countries it overran had to contribute to the French war chest; and England, as the only remaining opposition, had to fund an unprecedented military campaign. The first reaction of rulers was to levy additional taxes on wealth and income. In England for the first time Pitt the Younger introduced income taxes to pay for the troops. The Dutch Republic also reverted to income taxation to cover expenses in the late eighteenth century (Fritschy 1988). It was not until Napoleon's conquests that the governments of Prussia, Spain, and the Dutch Republic were forced to centralize their fiscal systems (Poell 2008).

As we saw in section 1, the political reconfiguration brought about by the Congress of Vienna after Napoleon's defeat (1815) reversed part of these changes. Fiscal centralization did not pay off in the new Kingdom of the Netherlands because the absolutist rule of William I prevented adequate parliamentary control over public finance until the liberal 'revolution' of 1848 (Van Zanden and Van Riel 2004). In Spain, several decades of internal strife between absolutists, reactionaries, and liberals preceded the unification of the fiscal system in 1845 (Tortella and Comín 2001). The English stopped experimenting with income taxes and continued to rely on excises and customs – even if they managed to reduce collection costs to below 5 per cent (Lindert 2004). The problems with fiscal centralization in most countries are reflected in the share of indirect taxes in total revenues. In 1870 central government typically raised only between 20 and 40 per cent of their revenue through taxes on wealth or income. The remainder came from customs and especially after the liberalization of trade in the 1850s and 1860s, excise duties (Flora 1983; Mitchell 2003).

Thus it comes as no surprise that central government revenues grew little if at all in most countries. The tax burden was often no higher in 1870 than it had been a century earlier. Most central governments still only raised between 5 and 10 per cent of GDP in taxes. In France taxes had actually fallen from 10.4 per cent in 1820 to 6.9 per cent of GDP in 1870. In the Dutch Republic central government expenditure as a percentage of GDP fell from a high of 14 per cent in 1840 to less than 8 per cent in 1870 (Van Zanden and Van Riel 2004). This decline is partly explained by the higher rates of growth of the economies—absolute revenues were increasing because aggregate GDP was growing faster after 1815 than it had before 1789. Hence in Northwest Europe state coffers were relatively flush. To be sure, in Southern and Central Europe the picture was not so rosy.

The moderation of the tax burden also involved the expenditure side, where the choice of rulers to refrain from European warfare figured most importantly. England, France, and Spain continued their struggle for Empire outside Europe but these colonial wars were much less costly – or lost early on, as in the case of Spain. At the same time governments were unable, or unwilling, to offer anything but military expenditure in exchange for the taxes they levied. In that sense really very little had changed in Europe between 1700 and 1870. Central governments were perfectly capable of designing fiscal institutions to raise money but they used these revenues only to fight wars, or service the debts issuing from warfare. They did not consider tax increases for a more generous provision of public goods. In this respect it is telling that most 19th century governments preferred to pass on the burden or benefits of infrastructural works to local governments or the private sector.

3.3. Business law

The political and fiscal changes discussed above were accompanied by significant legal change. Again we must confront the argument that technological change drove legal change, in well ordered polities. In more 'backward' economies, growth may have been held hostage to the inadequacies of business law—in particular by restricting incorporation (Landes 1969, Freedeman 1979). More recently economists have seen law itself as a constraint, with common law countries' institutions (the sole exemplars in Europe being Ireland and the United Kingdom) being the most responsive to economic forces (see Laporta et al 1997). Those in countries that derive their law from Roman and later French codes would be the least responsive (these include all the countries on the

Mediterranean and most of those that were carved out of the Ottoman Empire.) Germanic and Scandinavian traditions fall somewhere in between.

Neither argument is very satisfactory. Indeed the first business corporations were formed at the dawn of the 17th century, while general incorporation laws were passed mostly in the second half of the nineteenth century long *after* industrialization had begun. The second argument takes as fixed a set of institutions (law) that are constantly evolving. The legal origin thesis must be revised to allow for the fact that codes were short and much was left to the interpretation of judges. Judges in common law countries had an obligation to take precedent and statute into account. On the continent there is growing evidence that the same was true in practice. In fact European commercial law depended upon legal expertise that reached back to the Middle Ages, and in many cases to Roman law (Hilaire 1986). We thus turn to the legacy of the past before confronting the breaks that came with the French Revolution and then general incorporation laws.

Although canon law was not initially friendly to credit, the legal problems of debts had been solved before 1700. The capacity of individual in commerce to issue and endorse letters of exchange and commercial notes was general *including* in the Christian and Jewish communities of the Ottoman Empire. More generally, private individuals could borrow by mortgaging land and other assets or just sign private obligations. The matter of equity was more complex. Before 1800 multi owner firms typically took the partnership form. There were exceptions, such as shipping and in mining, where different forms of joint stock enterprise had arisen early on (Harris 2000). In these firms, equity could be traded and investors had limited liability, but in other ways they resembled partnerships because the ‘market’ for the equity was extremely restricted—

either to individuals engaged in the venture or to residents of the same town. In the case of partnerships, liability was unlimited and equity could not be traded. Business law in this sense was quite primitive. Even in silent partnership contracts (legal only in parts of Europe) equity was personal and very difficult to trade. As late as 1700 the few corporations that existed were intimately bound up with the business of the state.

During the eighteenth century itself the extent of change was limited by the legacy of the financial crises that followed the end of the War of Spanish succession. In Britain, though the crisis was successfully resolved, the failure to repeal the Bubble act severely constrained the development of new forms of equity claims. In France, and Holland the government adopted an equally restrictive stance towards privileged corporations, but it failed to consolidate the public debt into publicly traded instruments. Nevertheless, reform was afoot, with the most famous step being, the French Code de Commerce in 1673 (Hilaire 1986 ch. 2). It quickly served as a reference for commercial practices, but its influence was limited to the kingdom of France.

In law, as in other matters, the French Revolution was a watershed. The pace of reform at home was stupendous and battlefield successes ensured that laws enacted in Paris diffused. The most enduring legacy was a series of codes (most famously civil, penal, and commercial). Before 1789 many of France's provinces had charters that recognized their specific legal heritage and fiscal autonomy. [1] Each province had a special appeals court (*Parlement*) whose duties included ensuring the conformity of new royal laws local custom and precedents. While there is some debate as to the extent of variation in commercial practices, there is no doubt that there was considerable variation

[1] The regional specificity of law was an attribute of nearly all but the smallest European sovereignties including the United Kingdom as the example of Scottish banking bears out.

in property, credit, and inheritance laws. The unifying codes were drafted under Napoleon. They have often been viewed as allowing the executive to intervene in matters of law at will. On a more prosaic level much of the codes reflect the desire to break with the past. Because the past had been an aristocratic regime with male primogeniture and privileges based on birth right, residence, occupation or even wealth, the civil code attempted to provide family and property law that was blind to these distinctions.

Legislators strove to limit the reach of powerful individuals, and so they wrote provisions to protect those that were perceived as weak. The Civil Code's rules for the division of estates limited testators' capacity to favour any particular heir. There were also quite specific rules for the administration of the property of minors and incompetents, the protection of women's dowries against their husbands' creditors and the rights of debtors over creditors.[2] The code mandated simple rules for the rental and sale of property. At the same time the reforms provided essential elements of a property rights regime that was designed to secure both real property and private debt claims through title and lien registries.

In a move that was perhaps less modern, the central role of notaries as mediators of family affairs was preserved. Although rarely required, the intervention of notaries in civil matters was pervasive (Hoffman et al 2000). The Revolution had tried to make them strict civil servants, but that attempt failed and the Consulate quietly sanctioned a return to regulated market for positions. Notarized contracts retained a critical advantage

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[2] It these matters it largely reprised Roman law, but keeping with tradition was as much a choice as was the break that created equal division of estates.

over purely private transactions: anyone who contested the execution of a notarized contract bore the burden of proof (Woloch 1994).

Relative to the mounds of precedent relevant to British law, or to the body of law in any European country in 1789, the codes were short and perforce incomplete. The 19th century thus saw a steady stream of legislative action and a torrent of appellate decisions both served to complete the French codes (even though they were not revised). Although appellate decisions were not published in full as they are in common law countries they were abundantly referenced in legal manuals that were the key companions to the code and the laws of the nation.

Trade and industry (henceforth commerce) were seen as needing different rules than those of the stolid civil code; these needs brought forth the commercial code of 1807. If the civil code was debtor friendly and procedurally slow, the commercial code was creditor friendly and emphasized speedy resolution. Where the civil code limited side contracts, the commercial code left people of business considerable leeway to devise rules to govern their interactions. The civil code's reliance on government officials (notaries and judges), gave way to special courts staffed by commercial people who relied heavily on arbitration by experts.

The codes diffused swiftly because Napoleon ruled over much of Europe. They were adopted in Belgium, Italy, the Netherlands, parts of Germany, Spain, and Switzerland, because those areas were either annexed to France or ruled by one of Napoleon's relatives. Between 1815 and 1860, most of these countries rewrote their code with sometimes substantial alterations. Hence the unification of continental law remains a work in progress. For instance, only France had separate commercial courts, and no other country gave such an extensive role to notaries in private contracts. Even where the codes themselves were not imposed, such as in Prussia, Austria, or Portugal, reforms occurred. In Prussia, the monarchy allied itself with modernists who chose to respond to the Napoleonic challenge with a series of institutional changes that culminated in the rise of a Prussian set of codes. Conflicts between agrarian Eastern Prussia and the more commercial West may explain some of the variation from the French version. Later, the need to conciliate those parts of Germany not under Prussian rule also dampened the capacity of the German code to set up a simple set of unique institutions.

[Table 3.2 about here]

Scandinavian countries also carried out large scale legislative reform—but without codes. Russia and the Ottoman Empire escaped the early nineteenth century spread of civil and commercial law reform associated with codes. It is important to note however, that the new central-European countries all adopted some form of code. Some wanted to forsake their Ottoman, Russia or Austrian past. When they did so, it became increasingly unlikely that they would base their codes on the French originals. Indeed the French codes though regularly amended by law were never revised in the nineteenth century, it was better to start from those of Spain or Italy which included the more recent legislative activity.

In recent years it has become common place to put emphasis on the capacity of the executive to intrude in the judicial process on the continent relative to common law countries. Codes indubitably marked a massive increase in centralization and uniformity, but critics of this change should bear in mind lack of regional institutional diversity within England. The evidence that codes' inefficiencies slowed the continent's industrialization is thin, not to say inexistent. It is also true that another hypothesis needs greater investigation, namely that the codes and the failure to separate the judiciary from the executive branch of government lay the ground work for institutional change in the twentieth century that was less favourable to market-based economic change.

The corporation is the emblem of public-private institutional collaboration of the period of early industrialization, and success or failure at deploying corporations has been a frequent explanatory trope in economic history (Landes 1969, Chandler 1977, Freedeman 1979). Before 1850, each corporation was created as a specific delegation of authority by the sovereign to a group of individuals (Mousnier 1974, Epstein 2000). A corporation's purpose could include local administration (municipalities or provincial governments), the provision of public services (royal administrators were often grouped in corporations or penitent societies). It could also include the collection of the crown's taxes as in the famous corporation of general farms in France. These organizations provided valuable antecedents to the business corporation, because they were the first to depersonalize an association that had non-religious purposes. From our perspective corporations have three important attributes: legal personhood (they could sue and be sued in court), a life span independent of that of its initial membership, and delegated management, but they rarely if ever had limited liability. [3] From the Middle Ages on there had been a close association between corporations and material gain, but that gain was typically associated with the provision of some public service. The Great Discoveries changed all that because in many cases Europe's pursuit of empire and treasure depended on corporations (Harris 2006).

[3] Limited liability was a relatively late development. Tradable equity was no doubt important to the small number of very large firms that came into being in after 1700 but even today the share of corporations that trade on exchanges is small. See Lamoreaux and Rosenthal, 2005 and Guinnane et al 2007.

There were two obstacles to the expansion of corporations in the eighteenth century. Most rulers could not afford to liberalize rules about the creation of corporations without a serious drain on their treasury—indeed rulers expected to collect handsome fees for authorizing new ones or taxing their monopoly profits. The other obstacle was the foul reputation of equity claims after the collapse of the financial bubbles of 1719-21 in Amsterdam, London and Paris. Nevertheless at the end of the eighteenth century, corporations were making a come-back. That movement had its roots in two completely different set of endeavours: public utilities (canals and other improvements) and financial enterprises (insurance companies and investment funds). In both cases the corporation was a desirable organization relative to alternatives because it allowed the spreading of risk (relative to a sole proprietorship), the earning of a return by principals (relative to a trust), and protection from dissolution in case of the death of a principal (relative to a partnership). Purely industrial enterprises, however, did not gain easy access to the corporation's advantages.

The French writers of the commercial code followed common practice by allowing for corporations with permission of the state Facing with demands for a joint stock enterprise form they did not restrict the creation of share-issuing limited partnerships (*commandites par actions*). These enterprises offered limited liability and tradable equity to silent partners but required that managing partners take on full liability. While meetings of the shareholders (silent and general) could wield considerable authority, between meetings the general partner had the run of the firm. This form of enterprise was popular in France, the Netherlands, and Germany. It must have reduced the demand for corporations but the history of its take-up in Europe has yet to be written.

Between 1800 and 1850 the general rule was that some corporations were formed in every country but not very many, except in Belgium (where nearly as many were formed as in France).

In the 1840s and 1850s the rules for creating corporations were liberalized. Britain acted first. In part because common law did not allow silent partnerships, it faced a greater demand for a new joint stock form of enterprise than the continent. Britain allowed for corporations with full liability in 1825, then double liability in 1844, and finally without liability in 1855. The continent followed in dispersed order (see Table 3.2). The next century would face the difficult problem of regulating and governing corporations.

3.4. The State and the Infrastructure Sector

The infrastructure sector is the most specific area of our exposition and serves as a crucible where political, fiscal, and legal change come together to explain the provision of infrastructure services. Political and fiscal structures dictated the extent of public or private provision of infrastructure, while legal institutions shaped the precise mechanism that could be use to encourage local entities or private investor's to step when the central state declined to do so. Thus, this sector is fertile ground to the study the role of European political institutions in influencing economic development. In this section, we provide a brief overview of policies towards roads, waterways, and railroads across Europe. One key theme is that restraints on sovereign expropriation and the degree of political fragmentation help to explain the patterns of state intervention and infrastructure development. The historical record also suggests that countries were spurred to reform their infrastructure policies in response to their neighbours' efforts.

Road Policies

In 1700, most European road networks were maintained by local authorities, such as villages, cities, manors, and churches. Some local authorities could use conscripted labour (known as the *corvee* in France and statute labour in England), while others collected tolls usually through some ancient right. Local authorities faced little oversight and had few fiscal devices; thus, roads were not maintained and new investment was rare.

Many European states took steps to reform the maintenance and improvement of their road network. One of the unique aspects of English road policies was the mixture of local initiative and Parliamentary oversight. Local groups submitted petitions requesting to form a 'turnpike-trust,' which gave them authority to levy tolls to improve a stretch of road in their area. By 1840 there were over 30,000 km of turnpike roads in England and Wales. Most were well-maintained, permitting the use of large wagons and fast coaches (see Bogart, 2005).

The Southern Netherlands also had an extensive turnpike network. It operated similarly to the English system by combining local initiative with oversight from the Austrian government. The tolls were abolished by French authorities during early 1800s but they were reinstated in 1814 (Milward and Saul 1970, p. 441). Over the next few decades, the network increased to include 3000 km of well maintained roads in Flanders, Brabant, and Hainaut (Ville 1991, p. 16).

Spain and France had a different approach. In the eighteenth century, the crown designated some highways as royal routes and others as local roads. The French central government funded royal routes and established the corps of the *Ponts-et-Chaussées* (an elite group of engineers) to build and maintain them. Secondary roads were maintained by municipalities, often through *corvee* labour. By 1800 France had 43,000 km of roads, over half of which were royal routes (Price 1983, p. 37).

Napoleon often spoke of the need to expand the road network, especially the national roads, but accomplished little. After 1814 the French government increased its funding of national routes, and the primary network increased from 25,700 km to 34,000 by 1840 (Price 1983, p. 37). There were also changes in the funding and organization of secondary roads. An 1836 law expanded municipalities' fiscal authority and gave departmental councils the right to raise taxes for roads of regional importance. The law appears to have been quite successful in that spending on local French roads increased by nearly 50 percent between 1837 and 1850 (Price 1983, p. 41).

How did state policies affect road infrastructure performance? Performance can be measured along several dimensions including network size, quality, and price. Here we focus only on network size because it proxies for investment. Table 3.3 shows the number of road km per capita and road km per square km in four countries. England and the Southern Netherlands had significantly higher road km per capita and per square km than France or Spain. The data raises the question of whether France and Spain would have had a larger road network with turnpikes rather than royal roads. It is not possible to address such a counter-factual here, but there are reasons to believe that the adoption of turnpikes in France or Spain would have had a much smaller impact than they did elsewhere. English turnpike trusts made road investments in a context where property rights to levy tolls were relatively secure. It is not clear that the French or Spanish crown could ensure such security, and thus private investors may have been hesitant about making such investments.

[Table 3.3 about here]

Political fragmentation also stifled investments in road networks. It was difficult for a turnpike road to pass through multiple jurisdictions, because each governing authority would be tempted to set a higher toll than the others. A large absolutist state, like France or Spain, could conceivably solve this problem, but in many cases the crown did not have the political will or the resources to control all of its sub-units. As a result there were no transcontinental highways and few trans-national highways in eighteenth century Europe.

Waterway Policies

Waterway improvements included widening or diverting the path of rivers and the building of canals. Some areas were fortunate in having many navigable rivers already in the seventeenth century, but even in these cases there was substantial need for maintenance. The Dutch Republic was the first country to build and maintain an extensive network of navigable waterways. The network was financed and owned by municipalities like Utrecht, Amsterdam, and Harlem who received rights from provincial estates, like Holland. Provincial estates issued *octrooi*, which specified rights-of-way and the fees that could be charged by municipalities. The canal network expanded rapidly in the seventeenth century as estates responded to growing commerce and urbanization. By 1700 the Dutch had the most extensive waterway network in Europe, including over 650 km of canals (De Vries 1978).

England tried to emulate Dutch waterway policies during the early seventeenth century. In this case, there was a competition between the King and Parliament over the authority to issue monopoly rights to improve the navigation of rivers. Both the King and Parliament showed a willingness to repudiate the rights issued by the other when power shifted in their direction. It was largely after the emergence of political stability in the late 1690s and early 1700s that companies and cities began making major investments in river navigation and later in canals. By 1840, England had over 7000 km of navigable waterways, rivalling the Dutch as having the most extensive waterway network in Europe (Willan, 1964).

Canals were built in France during the seventeenth and eighteenth centuries but the waterway network was not as dense. Many of the early canals were built by private parties through privileges granted by the king or assemblies like the estates of Burgundy. However, most of these projects were not successful and the state began financing some canals in second half of the eighteenth century. The French Revolution slowed the pace of improvement and by 1814 little progress was made. In the 1820s, Francois Becquay laid out a plan to build a large network of waterways through concession contracts. Becquay appears to have had the English model in mind when he devised his scheme, but few investors showed a willingness to invest in French canals (Geiger 1994).

The French central government was keen to develop the waterway network and so it devised a 'public-private partnership' to implement the Becquay plan. The state borrowed from private investors, mostly Parisian financiers, and agreed to split the profits once the debt was repaid. Relations with investors were often confrontational, especially regarding the tolls and the return paid on the bonds. The French state eventually bought out the companies interests in the 1870s and began financing many of its own canals (Geiger, 1994). By the end of the 1870s, the French waterway network was largely government-owned (Ville 1990, p.38).

Belgian waterway policies were heavily influenced by the Dutch and the French. There was substantial investment in the 1820s when the region was under Dutch rule. Provincial authorities owned and financed half of all waterway projects and another substantial portion was owned by private concessions (Waterway Association, p. 47). In the 1860s, the state began purchasing private canals and assumed control over many provincial canals. Maintenance and construction were administered by the *Pont-et-Chaussees*, which operated similarly to its French predecessor.

Germany and Russia made relatively few improvements to their waterways before 1870. Most of the German improvements were initiated and financed by principalities. For example, King Ludwig of Bavaria built and financed the Ludwig canal in the 1830s and 1840s which connected the Rhine and the Danube (Ville 1990, p. 33). State ownership and financing increased in the 1870s and 1880s as the German central authorities undertook a number of waterway projects. In Russia, Peter the Great financed and built most canals, like those linking Moscow with St. Petersburg (Fink, 1991).

A comparison of waterway development across countries in table 3.4 shows that networks were the largest in England, the Dutch Republic, and Belgium, where private or municipal authorities had a substantial ownership and financing presence, and they were smaller in France, Germany, and Russia where the state played a direct role in financing, planning, and ownership. Would waterways have been more extensive if French, German, and Russian authorities adopted the waterway policies of the English, Dutch, and Belgians? Reid Geiger (1994, p. 250) argues that the expected rate of return on French canals was too low to attract private investors because of low levels of urbanization and commercialization. As a result, he suggests that the state was the only entity willing to finance the network. An alternative explanation for the slow development of the French waterway network was the state's inability to protect the property rights of companies. The lack of commitment is illustrated by the French state's decision to reduce canal tolls against the wishes of the companies who had the legal authority to veto such changes in the original concession contract (Geiger, p. 249).

[Table 3.4 about here]

Political fragmentation also stifled waterway development, but for different reasons. Rights-of-way were especially important for canals because they cut through farmland. In eighteenth century France, canal promoters had difficulties negotiating with landowners in multiple jurisdictions. In theory, the Crown could force landowners to sell their property, but some local groups were able to appeal rights-of-way decisions in courts that met infrequently (Rosenthal, 1992). Political decentralization could also cause problems in approving projects that crossed boundaries. In the Dutch Republic, estates could not issue an *octrooi* for projects outside their province. Moreover, some projects were delayed because any city in the estates of Holland could veto an *octrooi*, included those which disproportionately benefited their rivals (De Vries 1978, pp. 31-32).

Railroad Policies

Railroads were the most important infrastructure investment in many European countries, particularly in the East. Every European state quickly realized the importance of railroads for economic development, military security, and political unification. As before, the state had the choice of leaving railroad planning, construction, and operation to private companies, but many states decided that subsides or direct ownership was necessary (or more desirable) for railroad development.

Three types of policy patterns were common before 1870: One group of countries had private ownership combined with state subsidies, planning, or construction (i.e. France, Spain, Portugal, Austria-Hungary, Russia, and Italy). A second group started with private involvement but shifted to greater state involvement (i.e. Netherlands, Denmark, and Norway). The third group had a mixture of state and private participation from the beginning (i.e. Germany, Sweden, and Belgium).

The U.K. and France had the highest degree of private ownership up to 1870. It also appears that both followed their policy model for waterways. In the U.K., Parliament passed acts giving companies rights-of-way and the authority to levy fees. The companies made substantial investments without any subsidies from Parliament. There were complaints, however, about over-building, the lack of coordination between companies, and high fees.

In France, the *Ponts et Chaussées* was responsible for planning and engineering. The state offered companies the right to lease the lines for 99 years and guaranteed the dividends on securities issued for new construction. Out of this system emerged six large railroad companies that owned most of the French railroad network. The policy was fairly successful in that Paris was connected by rail with all regions of France.

Spain, Portugal, Austria-Hungary, Russia, and Italy also guaranteed interest or dividends for private railroad companies. Guarantees became common in Europe after the 1860s and indeed throughout the world. They are often viewed as a 'give-away' to foreign investors, but they might have provided the necessary profits to compensate for the risks of lower than expected demand or arbitrary changes in regulation.

States could also build their own railroad networks rather than subsidize private companies with guarantees. The Netherlands, Denmark, and Norway began with a greater degree of private ownership, but then turned to direct state-financing and ownership in the 1860s. In several cases, politicians expressed the view that greater state ownership was preferable to interest guarantees for private companies (Veenendaal 1995, p. 191).

States also increased their ownership of railroads because they believed it would increase military effectiveness and solidify their political power (Millward, 2005). The state focused on building the trunk lines connecting capital cities with their provinces and strategic borders. In Belgium, state ownership was part of a broader strategy to maintain independence from the Netherlands (Veenendaal 1995, p. 191). In Germany, the construction of state-owned railroads was intimately linked with the political ambitions of Prussian leaders like Bismarck. The strategy was successful in that state-owned railroads helped unify Germany and gain territory from France in the Franco-Prussian war.

The comparisons in table 3.5 suggest that railroad miles per capita or railroad miles per square mile were not systematically different in countries with more private ownership or more state ownership. Therefore, it does not appear that greater reliance on either private or state ownership influenced network development at least by 1870. The impact on other aspects of performance, like the efficiency of operation, has yet to be determined.

As a final note, the years after 1870 witnessed new directions in the ownership and regulation of railroads. Railroads were nationalized in many European countries because they were a key asset in military operations and they offered new sources of government revenue (Bogart, 2008). Many states also increased their regulation of railroad fares and began to impose safety standards. These policies were a harbinger of the state's approach to European industry in the twentieth century.

[Table 3.5 about here]

Conclusion

We set out to evaluate the relative importance of problems of sovereign expropriation to problems of institutional stalemate associated with fragmented authority in Europe between 1700 and 1870. What we found is a dramatic increase in the level of engagement of central authorities in a whole variety of social institutions. Provincial autonomy declined everywhere, as did the variety of institutions that prevailed within states. The center's power rose but, contrary to what North and Weingast would want us to believe, in most places centralization did not lead to an increase in expropriation. In fact it seems to have given central governments the ability to promote economic change and market integration; even if in many cases the specific policies involved relying upon local governments or the private sector. In this light, the link between restraints on the executive's power and economic performance, famously argued for England after the Glorious Revolution, seems to have few lessons for the Continent. There the institutional path traveled after 1700 largely consisted of expanding those powers. The reason for this alternative route lies in the excessive political and economic fragmentation faced by central governments around Europe. Certainly until 1800, expanding the market (and thus reducing fragmentation) was widely seen as the principal policy to foster economic growth. The means to achieve this – military operations as well as the implementation of tax reforms, legal changes, and infrastructure investments – all required a strong executive.

Beyond this broad trend, which can be observed in most parts of Europe, there was dramatic variation in the public and private institutions used to meet the challenges of international competition and industrialization. The changes in political structure, taxation, business law, and infrastructure realized by different polities depended on the historical antecedents of individual countries and on the extent to which large political accidents such as the French Revolution forced change. Evidence that economic logic produced the institutional variation we observe is scant—the public and private institutions in place by 1870 may well have been efficacious but it would be foolhardy to presume they were efficient.

The last lesson that emerges from our examination of public and private institutions relates directly to the title of this volume that juxtaposes unification and European experience. Between 1700 and 1870 Europeans shared the experience of international competition and in particular war. States, however, responded to the challenge of political and economic fragmentation in many different ways, so that by 1870 institutions were more different across Europe than they had been in 1700. Suffrage where it existed in 1700 was generally quite restricted. By 1870 there were democracies with universal male suffrage, and other polities had no representation whatsoever. In 1700 public finance was an arcane art and taxation an opaque process everywhere or nearly so. By 1870 the western half of Europe had adopted many modern principles of taxation, while in the East reforms were very slow. In business law some countries had modernized their laws and opened access to incorporation, while others would wait until after WWI. Finally the extent of infrastructure investment varied dramatically because it depended on changes in political franchise, fiscal regime, and business law, and because it was facilitated by more general economic growth. To be sure there was a clear gradient of divergence from North to South and West to East. But one should bear in mind the geographical scope of Europe is equivalent to that of China a far more unified region.

After 1870, public and private institutions would face new challenges; these would be met in a political and legal environment framed by the institutions devised in the nineteenth century. And even though the twentieth century finally ushered in institutions on a European scale, it has also seen the revival of regional politics. The problems of scale and unification that European rulers faced in the eighteenth century are still with us.

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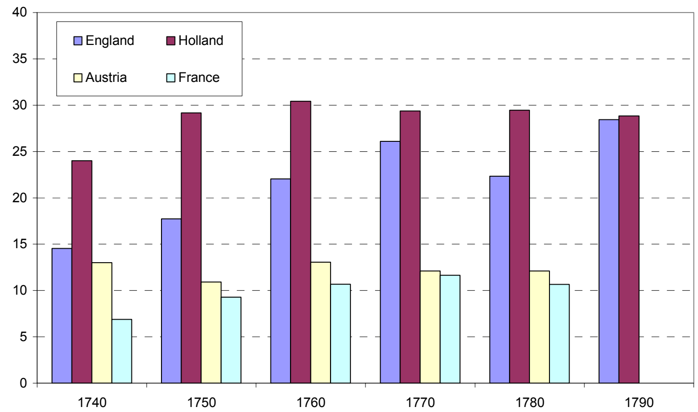
Table 3.1. Annual public revenue of European states around 1765, in pounds sterling, and estimated share of direct taxes in total fiscal revenue in 1770.

Country	**Annual revenue (c.1765)**	**% share of direct taxes (c. 1770)**
France	12,350,000	49
Great Britain	9,702,172	24
Habsburg monarchy	3,972,749	51
Spain	3,944,000	10
Holland	2,417,807	43
Prussia	2,104,077	32
Sweden	1,734,108	
Denmark	1,029,918	49
Bavaria	476,667	46
Austrian Netherlands	244,141	0
Hamburg	184,223	30
Dutch Republic	117,700	0

Sources: Hartmann 1979; For Spain: Tortella 2001, 156; For the Austrian Netherlands 1760-1769: Coppens 1992, 293. For Holland 1760-1769: Fritschy 2004. For the Dutch Republic 1762-1768: Dormans 1991, 158). Exchange rates are approximate values for 1766 from McCusker (1978).

Figure 3.1. Tax pressure in various European countries, expressed as the number of (silver) day wages per capita, 174-1790



Sources: Fritschy 1988, 54; Hoffman 1994, 238; Dickson 1987, vol. I, 36,40; vol. II, 369-370, 380; Prak and Van Zanden 2006, 130

Table 3.2: Business law reform in Europe

Country	Get Codes via French occupation or annexation	Date Commercial Code Adopted	Date General Incorporation Enacted
Austria/Hungary	No	1811	1899
Belgium	Yes	1851	1873
Ireland	No	None	1844 (UL) 1857 (ll)
Italy	Yes	1865	1883
France		1807	1867
Germany	Parts	1861	1870
Greece	No	1627	
Netherlands	Yes	1838	1863
Prussia	No	1807	1870
Portugal		1833	1888
Russia	No		Not before 1917
Spain	Yes	1830	1869
Serbia	No		
Sweden	No		1895
Switzerland	Yes		
United Kingdom	No	None	1844 (UL) 1857 (ll)

Note: for the regions that were occupied during the Napoleonic Era, the date the commercial code was adopted is the date an 'indigenous' code was enacted.

Source: Lescueur (1887) Hariss 2001, Hecksher (19xx) Jonkers 1996, Owen 1991, Cameron 1961. Owen (1991),

Table 3.3: Road Policies, 1700-1840

Country	Summary of Road Policies	Road km per capita (000s) c1840	Road km per sq. km c1840
England & Wales	Mixture of local and Turnpike network.	1.98 turnpike 7.54 local	0.13 turnpike 0.49 local
Southern Netherlands/ Belgium	Mixture of local and Turnpike network.	1.22 turnpike Local roads?	0.17 turnpike Local roads
France	Mixture of local and state financing.	1.0 royal 0.88 local	0.05 royal 0.05 local
Spain	Mixture of local and state financing.	0.6 royal Local roads?	0.015 royal Local roads?

Sources for road km: England & Wales, 31,500 km turnpike roads and 120,000 km parish roads. BPP 1841 XXVII, p. 79. Southern Netherlands, 3000-5000 km, mostly turnpike roads Ville (1990), p. 16. France, 34,200 km royal roads and about 30,000 kmsecondary roads, Price (1983), p. , Spain, 5000-7500 km royal roads, Ville (1990), p. 17. Population data from Mitchell (1975).

Table 3.4: Waterway Policies, 1700-1870

Country	Summary of Waterway Policies	Waterway km per capita (000s) c1850	Waterway km per sq. km c1850
England & Wales	Private River and Canal network.	0.40	0.029
Dutch Rep./ Netherlands	Municipal financing and ownership.	0.53 (1830)	0.04 (1830)
France	Mixture of public and private participation	0.23	0.006
Belgium	Initially Mixture of Provincial and private ownership, later State-owned.	0.36	0.05
Germany	State-owned Network.	0.07	0.005
Russia	Mostly state-owned network.	0.01	0.0001

Sources for waterways Ville (1990), p. 31: England, 7200 km, Dutch Republic 1400 km in 1830, France 4170 km, Germany around 2500 km, Russia 500km. For Belgium I used theWaterways association figure of 1600 km.

Table 3.5: Railroad Policies, 1825-1870

Country	Summary of Railroad Policies	Railroad km per capita (000s) c1870	Railroad km per sq. km c1870
United Kingdom	Private ownership with no subsidies.	0.80	0.081
France	Private ownership with subsidies.	0.46	0.080
Spain	Private ownership with subsidies.	0.32	0.011
Portugal	Private ownership with subsidies.	0.16	0.008
Austria-Hungary	Private ownership with subsidies.	0.27	0.015
Russia	Mostly private ownership with state subsidies. Companies own 90 percent of track km	0.17	0.002
Italy	Mostly private ownership with state subsidies. Companies own 90 percent of track km.	0.22	0.020
Netherlands	Shift from private to state ownership Companies own 43 percent of track km.	0.25	0.027
Denmark	Shift from private to state. After 1860 the Companies own 36 percent of track km.	0.42	0.020
Norway	Shift from private to state ownership Companies own 19 percent of track km.	0.20	0.001
Germany	Mixture of state and private from the start. Companies own 56 percent of track km.	0.47	0.035
Sweden	Mixture of state and private from the start. Companies own 61 percent of track.	0.69	0.006
Belgium	Mixture of state and private from the start. Companies owned 69 percent of track km.	0.55	0.095

Sources for railroads km, *Abstract of Foreign Statistics*. United Kingdom, 25,400km. Netherlands, 900km. France, 16700km. Belgium, 2800km. Germany, 19,100km. Spain 5400km. Norway 367km. Italy 6000km. Portugal 694km. Austria-Hungary 9500km. Russia 11,200km. Denmark 750km. Sweden 2860km. Ownership figures come from Bogart (2007).