Overstrong Against Thyself:

War, the State, and Growth in Europe on the Eve of the Industrial Revolution

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Abstract

Anarchy cannot sustain economic growth. But a state strong enough to maintain order can choose to sacrifice prosperity to pursue its rulers' primary aims—survival, conquest, and splendor. Thus a strong state is a danger to growth.

For a while Europe escaped this paradox through city-states ruled by mercantile oligarchies, where prosperity *was* the primary aim of the rulers. But by 1550 a "military revolution" made it impossible for such city-states to survive. The growth of "absolutist" monarchies came close to sending pre-industrial Europe into stagnation. All but one of the prosperous mercantile regions stagnated under the burden of war. Only Britain mobilized the forces to be a great power, conquered an empire, and saw continued growth to launched the industrial revolution.

How? Standard answers are wrong. Britain's island status did *not* exempt it from the military burden. Representation did *not* check the expansion of public spending.

Instead, four factors may have played a role: (i) the early modern state—capable of mobilizing ten to twenty percent of national product for war—came to Britain late; (ii) Britain's military mobilization had near-unanimous support from the political nation, thus its tax system was less burdensome than the exemption-ridden systems of continental absolutism; (iii) Britain won its eighteenth century wars, and mercantilist victory expanded the tax base; and (iv) British military effort coincided with a very large demographic upswing, that provided a larger resource base.

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I. Introduction

The Problem

Begin with two observations. The first is from Mancur Olson (1990):

> [T]here is a strange dualism.... In the absence of government, a powerful individual may physically possess something, but no one has any enforceable rights—there is no private property without government. Neither are there contracts, corporations, or patents....
>
> [But] just as governments are essential for [economic development], so governments are also the greatest threat.... [Only] governments... can expropriate property on a large scale.... Thus, we arrive at the paradox... sustained economic development may require governments that are strong enough to last indefinitely, yet so limited and restrained that they do not use their overwhelming power to abrogate individual rights...

The second is a comment made by a not-very-senior White House official after an inconclusive Clinton administration trade policy meeting:

> What you economists don't see, is that you are pushing for the public interest. But there are other interests that can be more important.

I was outraged. What is the public interest but the appropriate utilitarian sum of private interests? What interest could possibly be more important?

But indeed there are interests that are more important. Whether rulers feel themselves responsible to themselves alone, to God, or to the electorate; whether they sit in Washington's White House, in Agra's Red Fort, or in London's St. James Palace; there are always other interests than the public interest in economic prosperity and development. "The President can't win reelection unless he carries Macomb county, and this is very important in Macomb County." "The protestant succession is not secure unless the king's dynastic interests in Germany are protected." "The smallholders and the unions are the political base of this government, and this policy is not in their interests." "No government in this country can survive large-scale urban discontent, so the price of imported foodstuffs in the capital must be kept low."

The brutal fact is that policies that generate sustained long-run economic growth *must* rank far down the list of concerns of those who meet in palace conference rooms to make policy. Maintaining the splendor and state appropriate for a prince; military survival; military conquest;

redistribution of wealth *downward* in the income distribution to improve social welfare; redistribution of wealth *upward* to make the politically-powerful happy; all these compete with policies that promise to increase the size of the pie but take a generation or more to do so.

Thus a government—at least a modern government able to enforce its writ throughout its territory—is "overstrong against thyself." The reference is to John Milton's *Samson Agonistes*, where Samson pulls down the temple of Dagon, killing the Philistines and himself. Since 1500 or so, governments have acquired enormous strength: the ability to mobilize a larger share of their territories' resources to achieve their goals. And in many cases they have used their strength—their ability to tax and to mobilize—in a way that has brought their economies down in ruins, or at least into stagnation.

Some—like the anthropologist Ernest Gellner—believe that this trap the growth of government sets for economic growth is the near-inevitable destiny of human societies. Growth and prosperity lead to powerful governments and priesthoods. Powerful governments and priesthoods can appropriate and mobilize resources from producers to achieve their goals. And their goals are not further economic growth and prosperity. As Gellner (1988) has written:

> [Since the invention of agriculture] society as such is a trap, and moreover one from which it was almost impossible for mankind to escape. A stored surplus needs to be guarded and its distribution enforced. No principle of distribution is either self-validating or self-enforcing. Conflict is inevitable, and victors have every interest in permitting a return match.... Few agrarian societies escape.... Looking at those caught in the agrarian trap, we know that but for the Grace of God that would be our condition...

We can see this trap in operation throughout history. Consider early modern Europe, where mercantile prosperity and imperial conquest gave great power to the Spanish king, which he used to try to reconquer northern Europe for the Catholic church. Mercantile prosperity in Spain stagnated under the burden of this aggressive program of conquest and expansion. The other great powers of Europe as well found sustaining economic growth inconsistent with the burden of achieving the politico-military goals of the rulers.

In early modern Europe, only one emerging European nation-state—Great Britain—managed to continue to grow its economy under the burden of maintaining the military effort required of an early modern European great power.

The Stakes

That the British economy did continue to grow under this burden—and triggered the industrial revolution—is of enormous importance to us. Without it we would not be here today. There is an alternative world in which the British economy—like the economies of the continental European "great powers" of the early modern period—staggered under the burden of eighteenth-century war, and economic and mercantile activity regressed. And were we in that alternative world we today might look at the burst of mercantile prosperity and growth in early modern Europe much as we look at the similar burst of prosperity in China under the Sung dynasty or in Greece after the Persian Wars—a relatively happy era in human history, but one cut short and followed by stagnation due to war and politics.

Instead, the human race today consists of perhaps a billion people whom technology and enterprise give a standard of living that emperors of earlier centuries might envy. Look at the styles of life of the middle class in the developed world, or of educated elites in the developing world. Are their standards of living inferior to those of past emperors—like Tokugawa Ieyasu, Chandragupta Maurya, or Marcus Aurelius Antoninus? On an optimistic reading, perhaps three billion more people are on the "escalator to modernity"—living significantly better than their ancestors, and looking forward to a future in which their children will live better still. We may have escaped the trap in which most of humanity lives at a low standard of living near subsistence, and kings and priests skim off surplus to accomplish their own projects unrelated to sustained economic growth.

Then again, we may not have permanently escaped the trap. There are today about one and a half billion people, several hundred million of them in India, who are *not* living better than their ancestors, and are *not* looking forward to significant improvement in material welfare over the next generation. There *is* a level of population at which our technological mastery would just keep the population fed, and Malthus's extremely unpleasant "positive checks" on population growth would come into operation once again. Regions where more than 300 million people live may be underwater by the end of the next century as a result of global warming. The world is not Utopia.

Only optimists think the world is rapidly moving toward Utopia. But the industrial revolution has at least opened the possibility that, if we manage our collective destiny properly, the human race will move toward Utopia in the future.

Our stake in the success of the industrial revolution is large: without it, we would probably be trapped in the traditional pattern of human civilization, with the bulk of the population made up of low-productivity near-subsistence artisans and farmers, and a brutal elite skimming off the surplus, instead of having at least the chance of attaining a permanently better destiny. We have a strong interest in understanding how, exactly, humanity achieved the industrial revolution.

There is an additional factor. Today's governments have goals and aims different from and more extensive than the conquest-and-splendor governments of earlier centuries: redistribution of income in an egalitarian direction, and redistribution of wealth in the direction of groups whose favor is politically essential for the ruling government. But the fundamental logic of rulership—and the temptation to sacrifice policies to achieve long-run growth to other goals—remains. Thus the expanded role of the government has made taming government more urgent for us.

So how did first northwestern Europe, and then Great Britain, escape the trap of a government "overstrong against thyself"?

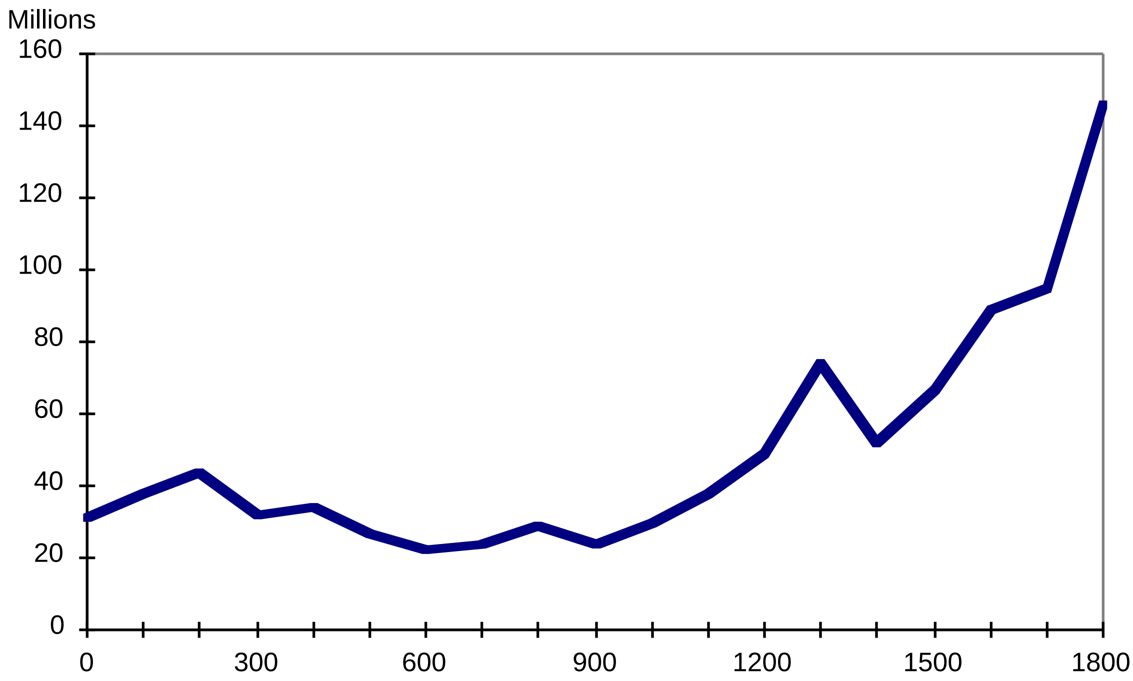
II. Princes and Merchants in Europe

The "Backwardness" of Europe

In the grandest sweep of world history, northwestern Europe is a backward region. Two thousand and fifty years ago the Roman politician Cicero could dismiss the island of Great Britain as a region not worth conquering because it was inhabited by barbarians too stupid even to make good slaves. It had no business being the most technologically advanced part of the world, and the home of transcontinental empires, in the second half of the millennium just coming to an end

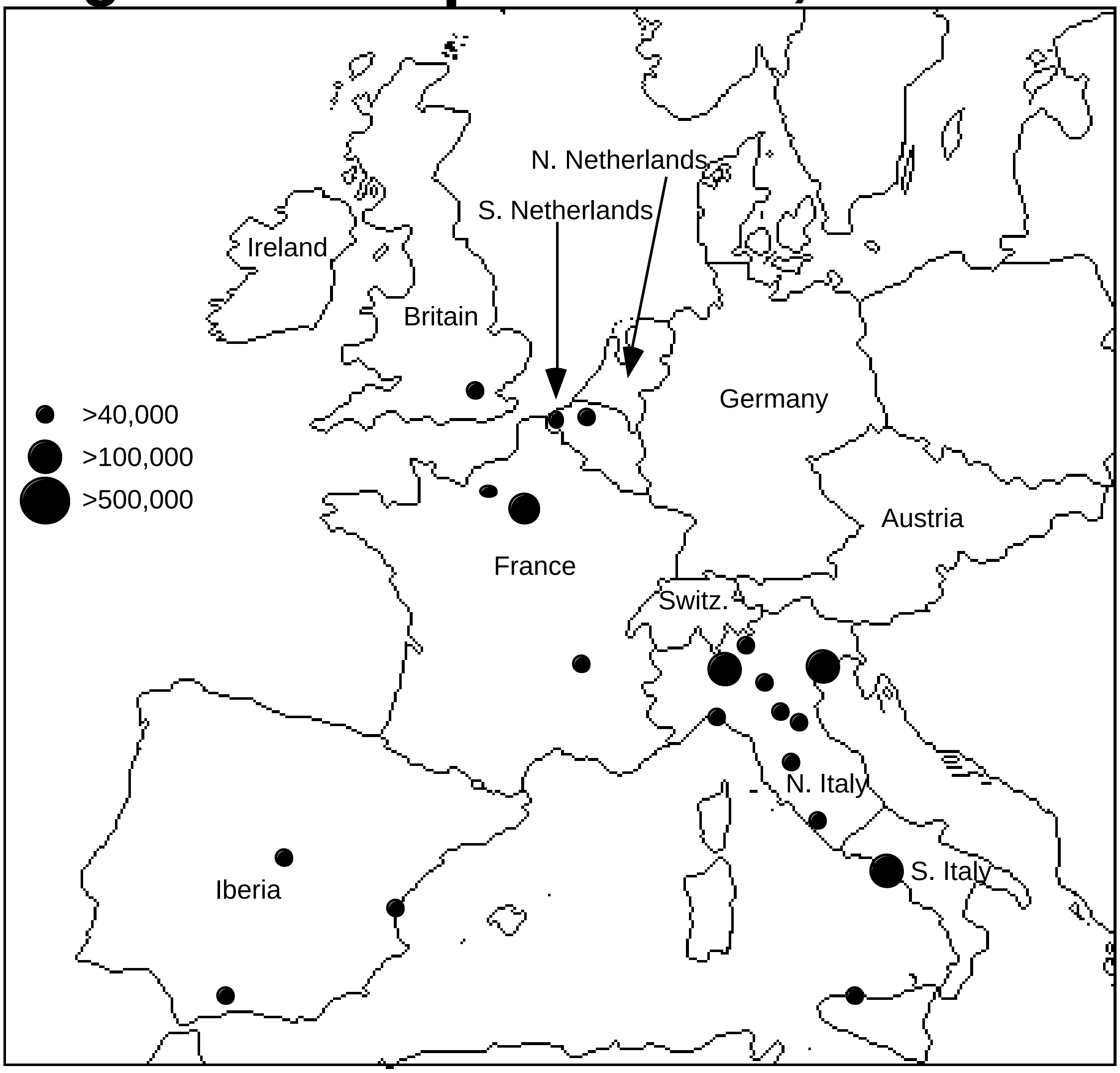
Looking down on earth from outer space a thousand, or two thousand, or three thousand years ago, northwestern Europe does not look like a region with high agricultural productivity, with a high middle-class standard of living, or that is likely to see an industrial revolution. High on the list must come the valleys of the Yellow, Yangtze, Ganges, Indus, Euphrates, and Nile, with perhaps other regions like Japan, Java, Al-Andalus, the eastern Mediterranean basin. But northwestern Europe does not even make it onto the list of regions where an industrial revolution *might* be possible until about five centuries ago.

Figure 1: European Population, A.D. 0-1800



Between ten and five centuries ago a cessation of invasions, improvement in climate, and the slow upward pressure of technological progress allowed Europe's populations to recover. Population recovered from the lows it had reached in the "Dark Ages." Population growth was slow and interrupted by plague and famine, but improvements in the basic agricultural technology needed to farm the heavy, forest soils of Europe meant that by 1600 or 1700 Europe could support a population of 80 million or so—perhaps twice its level under the Roman Empire.

Figure 2: European Cities, ca. 1500



Princes and Merchants

As the historian Charles Wilson (1967) noted, there is an interesting pattern to the growth of European cities:

> The two areas which in 1500 represented the richest and most advanced concentrations of trade, industry, and wealth were the quadrilateral formed by the Italian cities Milan, Venice, Florence, and Genoa; and the strip of the [southern] Netherlands that ran from Ypres north-east past Ghent and Bruges up to Antwerp. It was not merely coincidence that these were the areas where the tradesmen of the cities had been most successful in emancipating themselves from feudal interference, and in keeping at bay the newer threat of more centralized political control offered by the new monarchies. In the fleeting intervals between the storms of politics and war, men here glimpsed the material advance that was possible when tradesmen were left in peace unflattered by the attentions of strategists who

> regarded their activities as the sinews of war.... The precocious economic development of the cities of Italy and the Low Countries was cradled in the civic independence of those cities where merchants had achieved political power...

At least one important cause of European *mercantile* development in the first half of the last millennium was the existence of self-governing cities, free from control by and largely free from taxation by governments—whether those of feudal lords or of absolutist kings.

Statistical Evidence

Wilson's eye noted that city growth was strongest where centralized political control was weak. Andrei Shleifer and I noticed the same pattern, and wrote an article in 1993 quantifying this insight. City growth had a very strong allergy to the presence of strong, centralizing princes who called themselves "absolute" in the sense of being not subject to but creators of the legal order, and a strong attraction to mercantile republics: city-states governed by representative or not-so-representative oligarchies of merchants.

According to De Long and Shleifer (1993), each century that a western European region (one of nine that we analyzed: Iberia, southern Italy, northern Italy, Austria, Germany, France, southern Low Countries, northern Low Countries, and Britain) was ruled by a strong "absolutist" prince saw its urban population fall by roughly 180,000 people, and its number of cities with more than 30,000 fall by roughly one and a half, relative to what the experience of *that* region in *that* era would have been in the absence of absolutist rule. If each region in Europe had experienced an additional century and a half of absolutist rule before 1650, the urban population living in cities of 30,000 or more in 1650 would have been reduced from 4.7 to 2.6 million. Instead of 40 or so cities of more than 30,000, with 10 cities of 100,000 population or more, Europe in 1650 might have had some 22 cities of more than 30,000, with 6 cities of 100,000 population or more—approximately the degree of urbanization that Europe had possessed in 1200, and probably insufficient to support the mercantile prosperity and web of exchange that was a necessary precondition for the industrial revolution.[2]

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[2] Applying the quantitative estimates to the continent as a whole may overestimate the impact of political régimes on economic growth: perhaps absolutist rule by strong princes displaced city growth beyond their borders to some degree, rather than crippling urban growth in absolute terms.

Table 1
Basic Regression Results: People, Cities, or Proportion of Cities per Century

Dependent Variable	Effect of Strong Princely Rule	Variance Explained	Standard Error	Region Controls?	Era Controls?
Growth in Population of Cities over 30,000	-178.47 (48.53)	0.70	156.70	Yes	Yes
Growth in Population of Cities over 30,000	-79.65 (40.40)	0.48	185.13	No	Yes
Growth in Number of Cities over 30,000	-2.28 (0.82)	0.54	2.63	Yes	Yes
Growth in Number of Cities over 30,000	-1.52 (0.60)	0.36	2.75	No	Yes
Proportional Growth in Population of Cities over 30,000	-0.30 (0.24)	0.49	0.76	Yes	Yes
Proportional Growth in Population of Cities over 30,000	-0.15 (0.16)	0.37	0.76	No	Yes

Directions of Causation

Could high urban populations be a cause rather than a consequence of freedom from rule by strong princes? Perhaps city-states with ample populations were good at hiring soldiers to fight off attempts to incorporate them into nascent empires.

Of course. But this does not lead us to doubt *our* interpretation of the importance of freedom from a strong state. The underlying variation on which the estimates of De Long and Shleifer (1993) are based is the result of the political and military accidents of European history. For example, Friedrich I von Hohenstaufen "Red Beard" loses his wars to bring northern Italy under his control, and its city-states remain independent. Robert I d'Hauteville "the Crafty" and his brothers win their wars to bring southern Italy under their control, and its city-states become part of the "prototype absolutism" that was the Kingdom of Sicily in the first few centuries of this

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But there is no doubt that freedom from rule by a strong prince was a prerequisite of urban growth in pre-industrial Europe.

millennium. In the year 1000, southern Italy outstripped northern Italy in agricultural productivity, population, and urbanization; by 1500, after five centuries of absolutist rule in the south, southern Italy was a backwater next to the productive and urban north.

For another example, the Spanish King Felipe II Habsburg "the Prudent" sends his lieutenant the Duke of Alva to impose royal power on and suppress heresy in the Low Countries. Alva's government, the "Council of Blood," triggers wide-scale revolt brought under control in the southern half, but in the northern half water barriers and the navy of the embryonic Republic of the Netherlands provide an edge that allows the Dutch Revolt of Willem I Nassau "the Silent" to succeed. Thereafter the northern provinces that were to become the modern-day Netherlands flourish; while the southern provinces that were to become modern-day Belgium stagnate for centuries.

All these wars could have ended otherwise, and nearly did.

Incentives of the Rulers

Why should the success of an urban region at maintaining effective political independence be so important a determinant of growth and prosperity?

In preindustrial Europe, a city-state was typically ruled by an oligarchy of merchant-burghers. Larger units—dutchies, kingdoms, and empires—were ruled by quasi-hereditary princes whose professions were those of warriors. The origins of the medieval European city as a center of commerce with a dominant class made up of merchants (rather than, for example, a dwelling place of landlords, or a center of religion) are obscure and complex (see Weber, 1921).

Nevertheless, the fact that European city-states were ruled by merchants who had a direct interest in economic prosperity—while larger units were ruled by princes whose only similar direct interest was in military power—had important consequences. Consider a ruler who "taxes" an economy—where taxes are interpreted very broadly, to include *all* transfers to the state or its functionaries, from the cost imposed on citizens forced to quarter soldiers in their homes to sums of money paid to royal justiciars to get them to hear one's legal case. Denote by "t" this "tax" rate imposed on an economy with total productive output X(t). And assume that as the tax rate goes up, the productivity of the private economy declines:

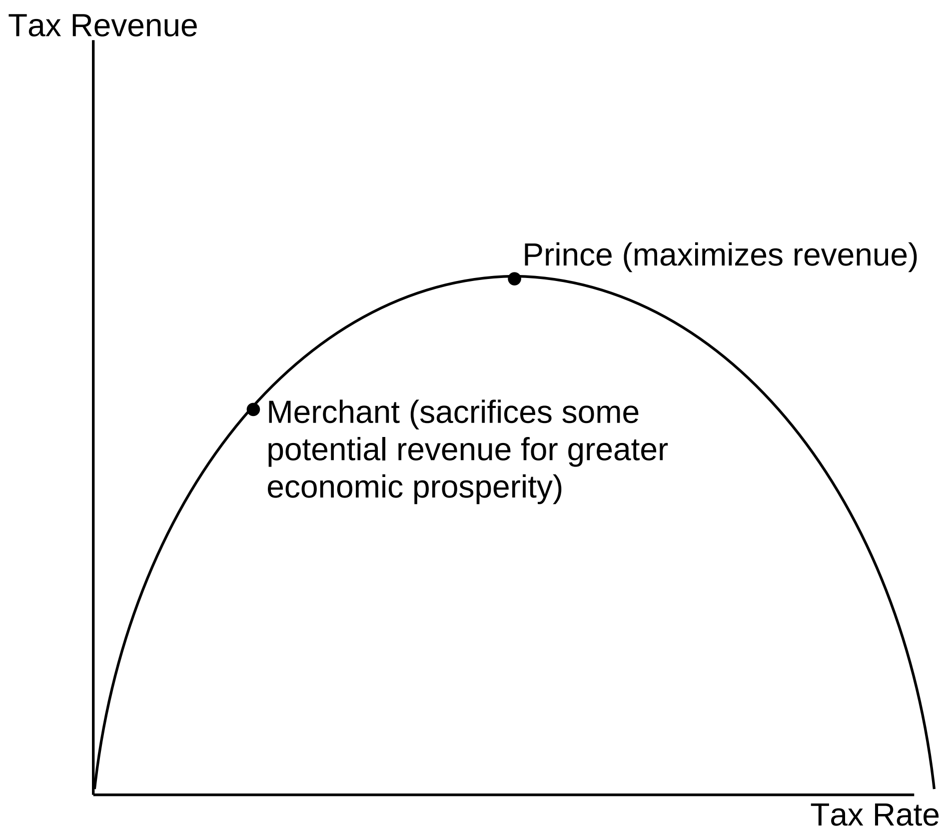
(1) $$\frac{dX(t)}{dt} < 0$$

At what rate did such a ruler choose to tax? A prince sought to maximize “revenue”—either for opulent display, to fight off invasions from neighboring princes, or for offensive war. In most cases a strong prince found the pressure to spend every possible shilling, florin, and guilder on war irresistible: as much as ninety percent of revenue was spent on war. Thus a prince found himself driven to pushing the “tax” rate up until:

(2) $$t = \frac{X(t)}{-\left(\frac{dX(t)}{dt}\right)}$$

This is the “Laffer” tax rate, as in Brennan and Buchanan (1990).

Figure 3: Choice of "Taxation" for Princely and Merchant-Dominated Governments



A far-sighted prince interested in fighting off next year's invasion as well as this year's, or one with confidence in the stability of the dynasty,[3] may perform the revenue maximization calculation implicit in (2) over a long time horizon. A beneficent prince may shade the tax rate downward; a prince who values cruelty and the brutal display of power for its own sake may shade it upward above the level that satisfies equation (2). But the logic of the situation forces the prince toward a revenue-maximizing tax rate.

Consider, by contrast, a government by merchant oligarchs, or more generally a government in which landlords or burghers with substantial private wealth have an important role in powerful representative assemblies. Their well-being depends to a considerable extent on their private incomes. And their private incomes depend on economic prosperity. And an increase in state revenue will seem to them no bargain if it leaves their businesses and rents impoverished.

For example, Lorenzo di Medici "the magnificent" guided the government of Florence for half of the fifteenth century. Yet his prestige and comfort depended not as much on the revenues in the city's treasury as on the prosperity of the Medici Bank. Self interested merchants and landlords, then, have objectives more appropriately modeled by some function:

(3) $$tX(t) + U\left[X(t)\right]$$

that takes account of the direct and immediate tradeoff that a government of merchant oligarchs feels between the public purse and their private purses. A ruling prince feels an indirect tradeoff, as the effect of his policies on economic activity feeds back onto the government's resources; but a merchant oligarch must place a higher weight on the maintenance of private prosperity.

Such an oligarchy will find that its preferred tax rate is not that given by (2) but instead by:

(4) $$t = \frac{X(t)}{-\left(\frac{dX(t)}{dt}\right)} - \frac{dU\left[X(t)\right]}{dX(t)}$$

Thus the "tax" rate that such a merchant government will choose will be lower than the "Laffer" tax rate chosen by a ruling prince.

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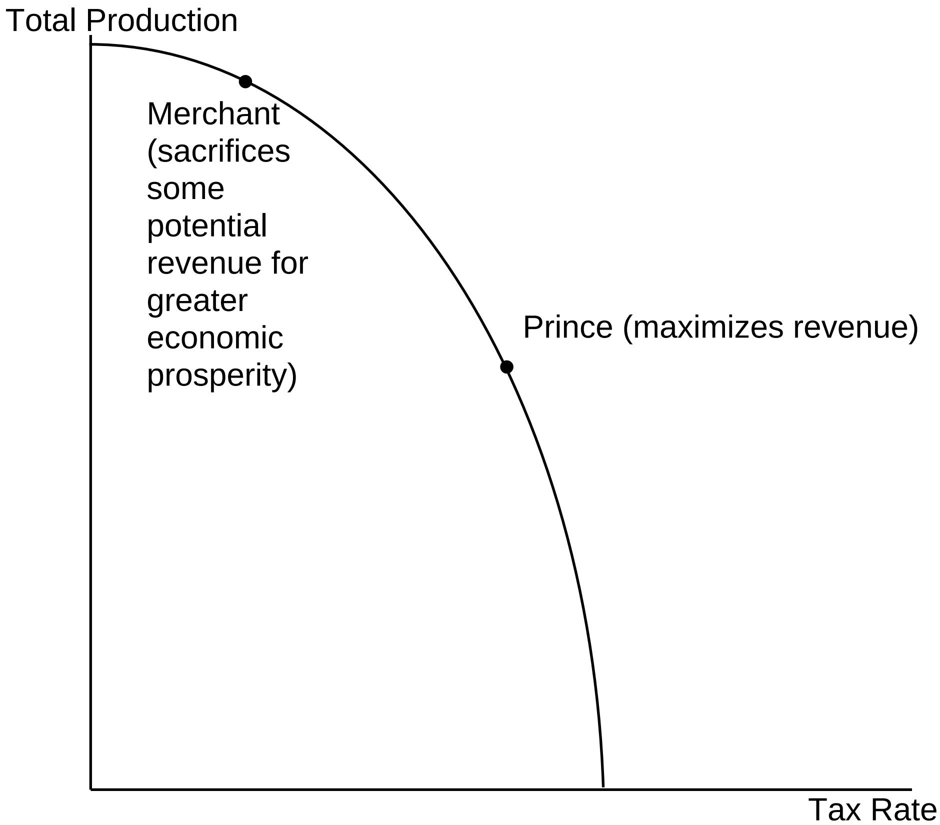
[3] But no one should believe that dynasties are stable. Consider, for example, the kings of England between 1066 and 1715. As De Long and Shleifer (1993) document, something went seriously awry in 18 of the 31 royal successions in this period. There was only a 13 percent chance that the legitimate heir who was grandson, granddaughter, grandnephew, or other relative of an English

Figure 4: Total Economic Activity for Princely and Merchant-Dominated Governments



One way to interpret this correlation of independent mercantile domination of city-state government with European economic growth is that economic growth seems to require what Karl Marx would have called the *political hegemony of the bourgeoisie:* political power must be held—or the holders of political power must be responsive to—those with a strong interest in economic development. Lack this political configuration, and economic growth will slow and stagnate, for the state's potential demands are unlimited. Thus Marx's emphasis on the need for political revolution before capitalism—and economic growth—can flourish: the "feudal" or the "absolutist" government forms a superstructure incompatible with the requirements of the mode of production, and must be replaced if there is to be progress rather than the "mutual ruin of the contending parties."

monarch would inherit the throne without disturbance in the line of succession.

At least one road to successful development requires establishing identity between political rulers and economic entrepreneurs interested in growth, or at least establishing a community of interest between those two groups.

The Weakness of Europe's Military Aristocracies

Many loose ends remain. How did Europe's city-states evolve their peculiar political structure? What was it about the culture that allowed economic growth to take advantage of the political opening created? But there is one overriding loose end. How can merchants—specialists in production and exchange—maintain political control, even in limited regions, against princes—specialists in violence and coercion? This is a serious problem—so serious that nowhere else in this millenium do we see anything like the regions of substantively independent self-governing city states seen in Europe.

In the civilizations of Islam, for example, the great historian-statesman Ibn Khaldun describes an urban, mercantile world always subject to invasion and conquest by nomadic warrior societies. The standard way of ensuring civil order is to allow and encourage one of the warrior clans to become rulers and protectors. But, as Ibn Khaldun (1967) saw the cycle—in which he participated—the cultural consequences for a warrior aristocracy of being the ruling class of an urban, mercantile civilization undermine its ability to provide an effective defense. And a century later, the urban, mercantile civilization finds itself once again without effective defense against the next wave of invasion and conquest.

It is difficult to escape the conclusion that the military successes of self-governing city-states in Europe owe a great deal to the relative incompetence and ineptness of Europe's warrior aristocracies in the first half of this millenium.

Certainly European military technology does not seem to have been up to the standards of Asia and North Africa. Those parts of Europe, including Hungary and Silesia, subjected to a Mongol reconnaisance-in-force in the early thirteenth century were unable to offer any effective resistance.

The End of the City-State Era

European kings and princes, however, did not remain relatively weak forever. In the middle of the twelfth century the German emperor Friedrich I von Hohenstaufen “Red Beard,” and at the beginning of the fourteenth century the French king Philippe IV Capet “the Handsome” would send their armies south and north, respectively, to attempt to establish their authority and rule over the city-states of Flanders and of Lombardy. Both met with disaster. The militia of the Weaver’s Guild of Flanders unhorsed so many French knights at the Battle of Courtrai that it is also called the “Battle of the Golden Spurs”—after the golden spurs the knights wore that were taken as booty by the weavers. The pikemen of the Lombard League inflicted a decisive defeat on Friedrich’s army at Legnano, which led to the Peace of Konstanz—at which Friedrich I abandoned all claims to jurisdiction over or revenues from the city-states of northern Italy.

However, a whole complex of technological, organizational, and political changes—usually called the “military revolution”—greatly amplified the ability of European princes to mobilize and sustain large armies, and brought the era of city-state autonomy to an end in the sixteenth century. In the mid-sixteenth century the king of Spain, Felipe II Habsburg “the Prudent,” sent an army north to the Low Countries under the command of his favorite Fernando Alvarez de Toledo, the Duke of Alba. His government, called either the “Council of Troubles” or the “Council of Blood,” had no trouble suppressing resistance in defense of the region’s traditional “liberties”—until the failure of the overcommitted Spanish government to pay the army triggered a mutiny. The only obstacle the armies of the father of Felipe II, Charles V of Ghent, had faced in their conquest of northern Italy were the armies of the French king Francois I Valois—the forces of the Italian city-states themselves were simply not an obstacle.

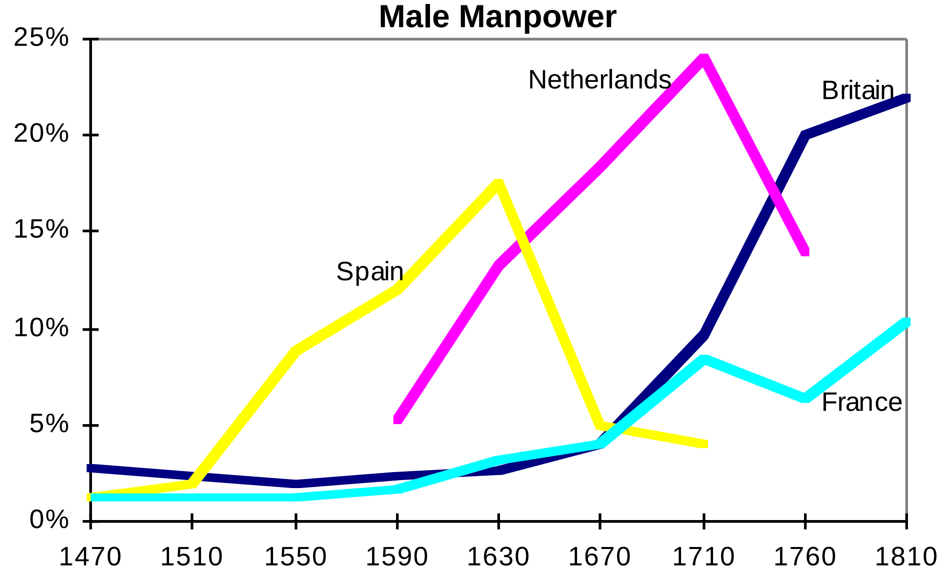
III. The Military Revolution

Technology and Organization

Thus between 1500 and 1600, the military-political dynamic of Europe changed drastically. In the late fifteenth century, when the kings of France began to launch military expeditions into northern Italy, the *total* sizes of armies mobilized was quite small: perhaps 20,000 soldiers in the expeditionary force, and perhaps 50,000 *at most* on all frontiers and garrisons. But by the middle of the sixteenth century, Charles V Habsburg "of Ghent"—King of Aragon and Castile, Count of Burgundy, Emperor of the Holy Roman Empire, Archduke of Austria, King of Hungary, Bohemia, etc.—would mobilize on the order of 150,000 soldiers for the last stage of his lifelong wars with France.

The sources of this "military revolution" were many. First came changes in military technology: gunpowder and the pike. But more important was the increase in administrative capacity: for the first time European monarchs had the clerks to count their soldiers, and the systems of accounting and revenue collection to allow them to levy taxes rather than call for feudal contributions and levies.

Figure 5: Approximate Armies as a Share of Adult Male Manpower



Projecting the size of the government, and of its budget, is an extremely hazardous enterprise for pre-modern Europe. But we can count soldiers more-or-less, and compare them to what we guess about the adult male population of the country. And such counts indicate that by the middle of the sixteenth century Spain was paying for armies that amounted to perhaps eight percent of its adult male population; by 1590 Spain's armies and navies amounted to perhaps twelve percent of its adult population; and at the peak of military effort in the Thirty Years War, around 1630, armies amounted to perhaps seventeenth percent of the adult male population of Spain. And we can guess that state military expenditure then amounted to fifteen to twenty percent of national product, and to a much higher share of *marketed* economic product.

In the late fifteenth century England had been the most effective proto-state in Europe: Henry V of Lancaster's armies amounted to perhaps three percent of England's adult male manpower. This success in military mobilization can be traced back to the Norman conquest of England in the eleventh century, which created a degree of centralization, of royal power vis-a-vis aristocrats, and of bureaucratic infrastructure not reached in other European countries until the sixteenth century.

But by 1550 the sole European great power was Spain. Other European states—Britain, Holland, Austria, Prussia, Russia, and the peculiar case of France were to follow it, reaching similar and sometimes higher peaks of relative military mobilization. But Spain was the first.

There is a considerable literature on the "decline of Spain" (see, for example, Elliott (1970, 1983, 1986). But from a demographic and expenditure population, the extraordinary thing is not that Spain declined (and in 1670 could not mount the kind of military effort that it had for the preceding century and a half), but that it stood head-and-shoulders above the other monarchs and countries of Europe in terms of its ability to mobilize society in the pursuit of war for so long. American treasure helped—but its quantitative impact on Spanish finances was less than the conquest of a new European province like Lombardy or Flanders. But the major cause of Spanish predominance in military affairs was that it was the first regime to acquire the administrative expertise necessary to run through the array of financial expedients that became standard for absolutist monarchies. Thus it is worth looking into the relationship between state power, the political-military goals of the ruling prince, and Spain's economic relative decline in more detail.

The Decline of Spain

The military effort made by the Spanish monarchy rose steadily from the beginning of the sixteenth into the early seventeenth century. The centralization of authority in the hands of the successors of Ferdinand and Isabella, the prestige gained by the completion of the Christian reconquest of Spain, the willingness of monarchs to assume the power to raise taxes through a broad variety of expedients, and the availability of American treasure to finance war had transformed Spain from a middle-rank European power into the greatest European power (at least insofar as its ability to project military force is concerned) for nearly two hundred years. Its ability—unique for its age—to mobilize resources allowed it to project power all over western and central Europe in an attempt to reconquer lands that had adopted protestant heresies for the catholic church, and to secure the position of the ruling Habsburg dynasty as the leading dynastic house in Europe.

Paul Kennedy has convincingly—though non-quantitatively—argued that Spain was the first power to suffer from "imperial overstretch." The wars of the Counterreformation entailed a degree of military mobilization in Spain orders of magnitude larger than any previously attempted in Europe. Supporting this mobilization required money on a scale previously unseen in Europe.

And the final extra efforts needed to gain the final extra quantum of gold or silver to support Spain's armies was obtained in ways that were potentially disastrous for the economy. For example, consider the first two financial decisions taken by the Spanish king Felipe IV upon his accession at the beginning of the Thirty Years' War: to renew the coinage of copper so that silver could be exported to pay for armies abroad (with disastrous consequences for Spanish merchants' ability to purchase imports); and to confiscate the Seville merchants' share of the silver from the American treasure fleet of 1620, giving them copper in exchange (and guaranteeing that throughout the reign of Felipe IV merchants would demand a healthy risk premium for any precious-metal transactions that might come under the power of the Spanish monarchy.

J.H. Elliott (1970) summarizes the "series of well-known images" that mark the relative economic decline of Spain: "...vagabondage, the contempt for manual labor, monetary chaos and excessive taxation." The heart of Spanish absolutism was the highly-taxed province of Castile, which possessed a tax and forced-contribution system that "left the villager of Castile and Andalusia very little inducement to remain on the land." And contemporary observers blamed large-scale government debt for the decay of Castilan commerce—those with a taste for risk found the expected returns higher from lending to the government.

Under Felipe IV, for example, the servants of the crown displayed what Elliott calls "both zeal and ingenuity" in raising revenue:

> ...the introduction of a [new] tax on the first year's income from [bureaucratic] offices... a salt tax, which provoked a rising in Vizcaya.... [A]ppropriated a year's income from the Archbishopric of Toledo.... [C]ollection of a voluntary *donativo* to help save Flanders and Italy.... [Confiscation of] half the yield of all *juros* [an important form of government bond] held by natives, and the entire yield of those belonging to foreigners—a device...employ[ed] in succeeding years.... [A] new tax in the form of stamped paper... obligatory for all legal and official documents.... [Seizure of] 487,000 ducats in American silver, [and] 'compensation' in the form of [the] unwanted *juros* [whose yield had been confiscated six lines above]....

These expedients cannot have had a healthy impact on Spain's economy.

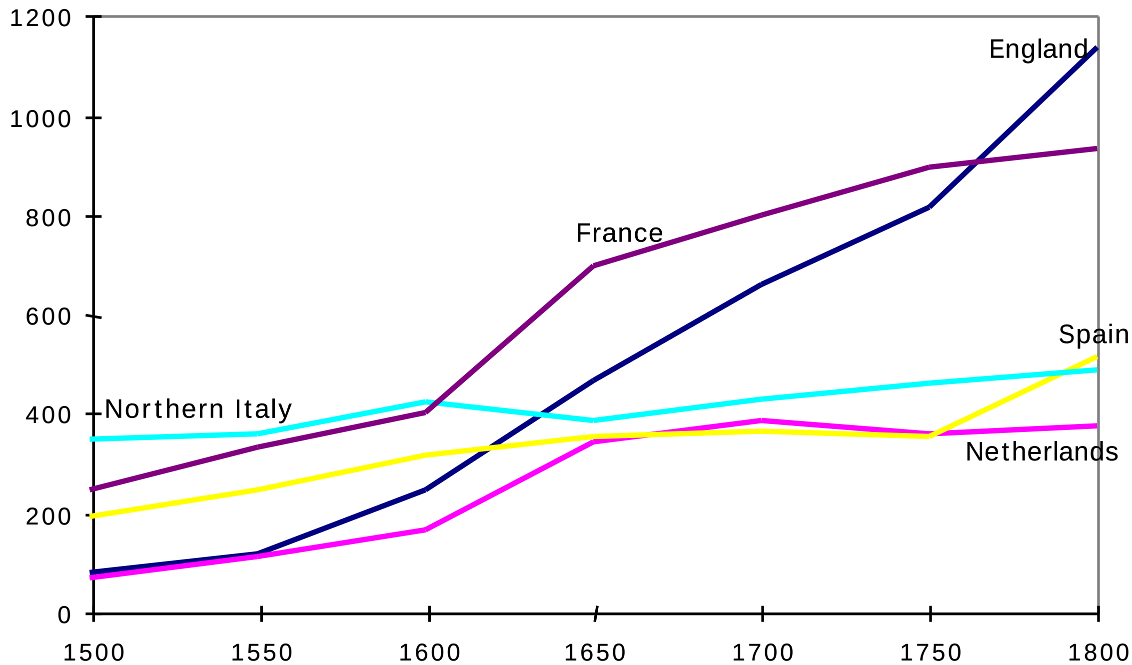
In Adam Smith's time, the tax system of Spain was held up as an example of how *not* to sustain economic growth. Smith believed that a misunderstanding of the true incidence of taxation— "the notion that duties upon consumable goods were taxes on the profits of merchants"—was partially responsible for the extraordinary damage done to the Spanish economy by its system of public finance. The *Wealth of Nations* contains a discussion of:

> the famous Alcavala of Spain... at first a tax of ten per cent., afterwards of fourteen per cent.,... upon the sale of every sort of property... repeated every time the property is sold. The levying of this tax requires a multitude of revenue officers sufficient to guard the transportation of goods, not only from one province to another, but from one shop to another.... Through the greater part of a country in which a tax of this kind is established, nothing can be produced for distant sale. The produce of every part of the country must be proportioned to the consumption of the neighborhood. It is to the Alcavala, accordingly, that Ustaritz imputes the ruin of the manufactures of Spain. He might have imputed to it likewise the declension of agriculture, it being imposed not only upon manufactures, but upon the rude produce of the land."

A tax policy more destructive to the division of labor, and more hostile to mercantile commerce, can hardly be imagined.

The collapse when it came was remarkably sudden. By the second half of the seventeenth century, Spain was no longer a great power. There had been a decline in the flow of American treasure; a decline in urban population and prosperity as a result of high taxes; a decline in urban prosperity as a result of the expulsion of Jews, Muslims, suspected Jews, suspected Muslims, people with Jewish ancestors, and people with Muslim ancestors—expulsions which may have forced out a fifth of the population of the Crown of Aragon—a decline because of too many state bankruptcies and repudiations of its debt; and revolts in nearly all the outlying provinces of Spain itself. By 1670 Spain could no longer mobilize the armies and navies it had mobilized in the days of Charles V Habsburg "of Ghent," his son Felipe II Habsburg "the Prudent," or his grandson Felipe IV Habsburg.

Figure 6: Population of Five Largest Cities, 1500-1800 (in Thousands)



Thus the century and a half of Spanish political dominance was also a century of relative economic decline. Lisbon and Madrid—two "parasite city" capitals, in the sense of Bairoch (1985), that were dependent on the state—grew. But there is little counterpart in Spain to the growth of Lyons as a textile center, or of Bordeaux as an export center. Even counting Madrid, the urban population of Spain stagnated in the years from 1550 to 1650, in sharp contrast to the rapid rise in urban population in contemporary England, France, or the Netherlands.

The Stagnation of the Dutch Republic

The bureaucratic and administrative tools that Spain had pioneered were soon copied. They were partially copied in France, which slowly increased the size of its armies and navies from perhaps one percent of the adult male population in the late fifteenth century to perhaps eight percent in the wars of Louis XIV Bourbon “the Sun King” at the end of the seventeenth century and in the wars of Napoleon at the end of the eighteenth. They were also copied further to the east, as rulers of Austria, Prussia, and Russia followed in Spain’s footsteps by imposing excises, selling offices to nobles to raise cash, borrowing and repudiating, and eventually drafting soldiers to such an extent that Prussia, at least, was called “not a state with an army, but an army with a state.” These rulers pushed military effort to the breaking point of their régimes as well, ruling through ideologies that proclaimed the legal order to be their instrument subject to change at their will, and constrained in their exactions only by fear of rebellion.

But the most interesting factor is that the “absolutist” régimes of princes in the seventeenth and eighteenth centuries were *not* the leaders in terms of proportional military mobilization.

As figure five above shows, the peak in terms of relative military effort was probably reached in the Netherlands, where in 1710, during the wars begun by Louis XIV’s attempt to conquer and annex the Netherlands, the country was paying for an army and a navy that together amounted to perhaps 24 percent of its adult male population.

One source of the northern Netherlands’ extraordinary military mobilization was the complete *absence* of a prince from its political structure. The leader of the government was sometimes, but not always, a member of the dynastic house of Orange, but as the elected executive of a republic rather than as a monarch. To some degree the government of the Dutch Republic looked a lot like the merchant-oligarchies of the city-states that had existed before the military revolution. As a result, the Dutch Republic could borrow nearly unlimited amounts at low rates of interest of three percent or so: merchant-princes pay their debts, and did not have to pay the default and risk premiums that lenders charged the king of France or the king of Spain.

A second source was the life-and-death nature of the wars in which the Netherlands was engaged. The heavily protestant Netherlands greatly feared conquest by a king, Louis XIV of France, who had just revoked his grandfather's "Edict of Nantes" providing toleration for protestants in France. Louis XIV had thus inflicted significant damage on his own economy by driving his protestant minority out of the country and into England, Germany, and Holland. And he seemed likely to follow the same re-Catholicizing policies if he succeeded in extending his borders to include the Low Countries.

Hence the extraordinary military effort of the Netherlands in their defensive wars against Louis XIV. And the willingness of the legislature—the Estates-General—of the seven provinces that made up the Dutch Republic to finance war through a tax system that was widely reputed to be the heaviest in Europe.

Thus the Netherlands in the late seventeenth and eighteenth centuries does *not* fit the model of being a relatively low-tax jurisdiction because of the powerful voice that the mercantile community had in the government. Instead, it was a relatively high-tax jurisdiction. Merchants, and those with a direct material interest in economic growth, continued to have a large influence on the government. Nevertheless, taxes were high because of the fear on the part of the mercantile-protestant community of the consequences of losing a major war.

And it looks as though the overtaxed Netherlands, in the eighteenth century, fell victim to Paul Kennedy's "imperial overstretch." Thirty years of constant warfare against France must have left the Dutch Republic in the early eighteenth century with a national debt equal to three of four times national product, suggesting a debt service burden of between twelve and twenty percent of national product and between eighteen and thirty percent of *marketed* economic activity.

It is no surprised that contemporary observers saw the eighteenth-century Dutch Republic as the most heavily taxed jurisdiction in Europe. And no surprise that observers like Boxer (1965) write of an eighteenth-century decline in agriculture, and blame "the oppressive incidence of provincial taxation and the burden of the excise network" as "two reasons why a considerable number of farmers in North Holland left the land..."

This was also the diagnosis of informed and sophisticated contemporary observers. Adam Smith (1776), for example, noted that "in Holland the money price of the bread consumed in towns is supposed to be doubled by means of... taxes...” He went on to report that such “heavy taxes upon the necessaries of life have ruined, it is said, [Holland’s] principal manufactures, and are likely to discourage gradually even their fisheries and their trade in ship-building...” With public revenues slightly more than half of British levels, but with a quarter of Great Britain’s poppulation, the “inhabitants [of the Netherlands] must... be much more heavily taxed” than the inhabitants of Britain.

In spite of his judgment of their ruinous effect on the Dutch economy, Smith went on to argue that the levying of such high taxes “upon the necessaries of life [is]... no impeachment of the wisdom of that [Dutch] republick, which, in order to acquire and maintain its independency, has, in spite of its great frugality, been involved in such expensive wars as have obliged it to contract great debts...”

Population and per-worker productivity in the Dutch Republic appear to have been no higher at the end of the eighteenth century than they had been at the end of the seventeenth. The Dutch Republic at the end of the eighteenth century was still the richest and most prosperous area in Europe, but its lead over much of the rest had been substantially eroded.

Elsewhere the pattern appears much the same. Absolutist monarchies had powerful abilities to tax selected portions ot their economies: they had little ability to tax the wealth of landloards and nobles, and they had little ability to tax consumption that did not flow through the market. But merchants and farmers who produced for sale were fair game. And almost everywhere the mercantile economy was squeezed at least to the point of stagnation to support the politico-military interests of absolutist monarchs, or—in the case of the Dutch Republic—to defend the country against attack.

The cities of northern Italy—the richest region in Europe at the end of the middle ages, and the home of the Renaissance—never significantly participated in early modern economic growth. As figure 6 shows, the population of the five largest cities of northern Italy did not grow significantly for three centuries. France and the Netherlands saw significant city growth at the end of the sixteenth and in the first half of the seventeenth centuries, but the populations of their largest cities then leveled off as well, coincident in time with the wars of attempted conquest launched by

Louis XIV agains the Netherlands. Only England sees rapid city growth continue into the second half of the seventeenth and the eighteenth centuries.

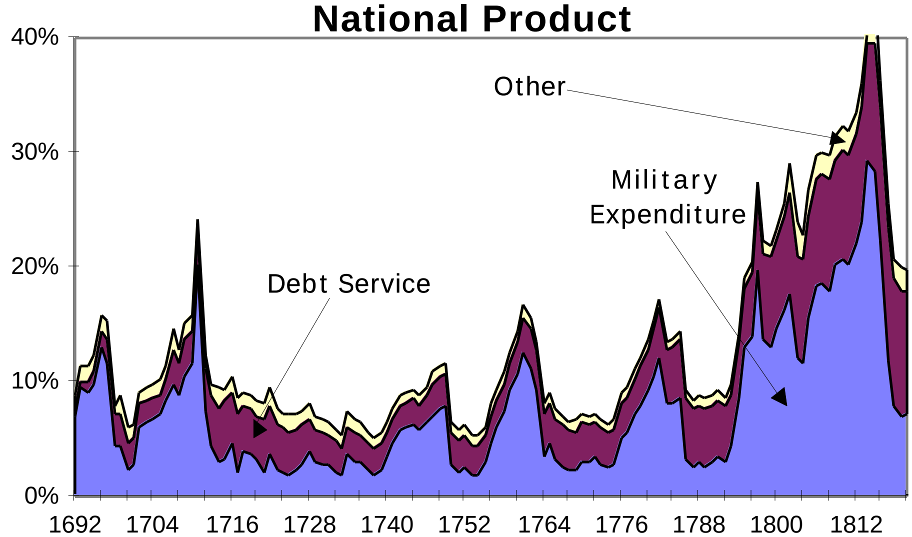
IV. The Anomaly of Britain

Origins of the British Military State

The mass mobilization of Britain's economy for war follows the same pattern as the Dutch, albeit a century or so later. The Dutch Republic had been militarized under pressure of the campaign by the Spanish to defeat its revolt and reconquer it for the Spanish monarchy, and then further militarized in the context of the defensive struggle against Louis XIV of France. The British aristocracy deposed a king, James II, for religious reasons in 1688. James II fled into exile at the court of Louis XIV of France. The restoration of the Catholic James II to the throne of largely protestant Great Britain thereupon became a war aim of Louis XIV, and Britain was thus drawn into the series of wars that began in 1689. (For a superb and masterful overview of the rise of the British military state, see John Brewer (1989).)

With the religious order of the country at stake, taxes that would have been unthinkable in any previous age were gladly voted by parliament to fight the French. An intrusive infrastructure of tax collectors and customs agents was established. And Britain's military mobilization began. By 1760 Britain's armies and fleets amounted to perhaps one in five of Britain's adult males. Certainly more than fifteen percent of national product, perhaps more than twenty, was spent on Britain's military in the peak military effort years of the Seven Year's War. The British state in the mid eighteenth century was strong enough to defeat France at sea, subsidize France's land-based enemies when they took up arms, conquer the Caribbean islands and North America, and begin the conquest of India.

Figure 7: Components of Government Expenditure as a Share of Trend National Product



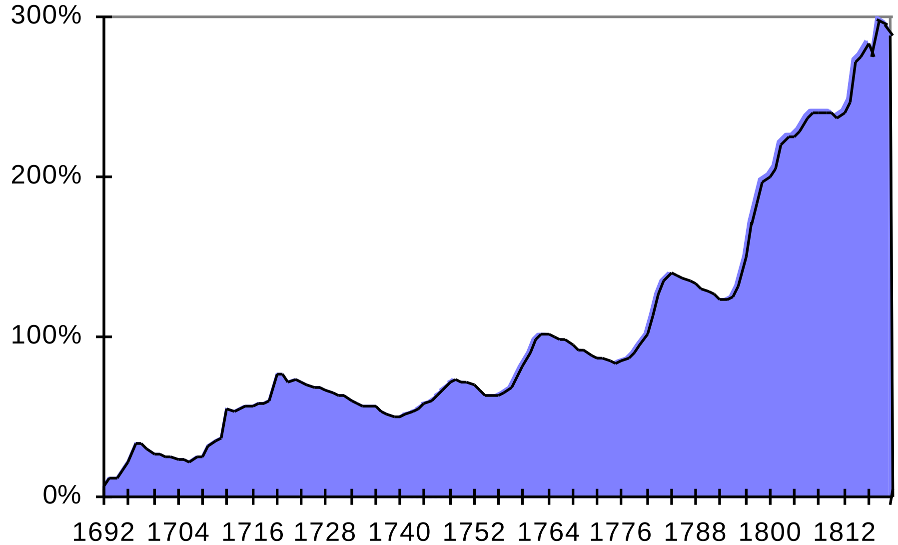
Just as the “decline of Spain” has generated a large literature, a good deal of which appears oddly misfocused in light of the demographics and finance of military mobilization, so the victory of Britain over France in the series of wars that began in 1689 and ended only in 1815 has generated a large literature, much of which focuses on England’s strategic advantages.

But from a demographic-financial standpoint, Britain’s victory is not surprising: its parliamentary régime was simply much better at taxing (and at borrowing as well; parliamentary rule meant a greatly lessened risk of default) than was the French.

Moreover, the British state sustained its military effort for an extraordinarily long time. Between 1756 and 1815—a span of 59 years—there were only 22 years of “peace.” Figure 7 details the military effort—and the debt repayment effort necessary because of the military effort—mounted by the British crown during the long eighteenth century. The consequences of Britain’s massive military mobilization for its national debt, and for the amount of national product the British government extracted in taxes, were as you would expect. The high taxes levied were not high enough to cover wartime peaks in expenditure; hence the debt mounted as a share of trend national product throughout the eighteenth century. It peaked during the American Revolution at

130 percent of a year's national product or so. And peaked at the end of the Napoleonic Wars at something like three times trend national product.

Figure 8: British Debt as a Proportion of Trend National Product



All other European states—absolutist like Spain or non-absolutist like the Netherlands—appear to have been unable to maintain both economic growth and the degree of military effort that being a European great power in the sixteenth, seventeenth, and eighteenth centuries required. Why don't we tell the same story about eighteenth-century Britain: a prosperous economy that staggered and eventually collapsed under the burden of the war expenditures required by a parasitic, aggressive, expansionistic and imperialist government?

How did Great Britain achieve its unique success?

Adam Smith

First, it was far from clear to contemporaries watching the British state in the eighteenth century that it would succeed. Observers like Adam Smith (1776) would repeatedly praise the British tax system's efficiency. For example, he wrote that "the people of France... it is generally acknowledged, are much more oppressed by taxes than the people of Great Britain," and yet:

> in 1775 and 1766, the whole revenue paid into the treasury of France, according to the best, though, I acknowledge, very imperfect accounts which I could get... [was] not the half of what might have been expected, had the people contributed in the same proportion... as... Great Britain.

But Smith did not believe that the relative efficiency of the British tax system would protect Great Britain from the adverse economic consequences of the cost of fighting its eighteenth-century wars. He wrote of the uniform "progress of the enormous debts which at present oppress, and will in the long-run probably ruin, all the great nations of Europe..." He took readers of *The Wealth of Nations* on a tour of the public finances of all the major European powers:

> The practice of [running up large debts during wartime and then consolidating the post-war indebtedness into long-term bonds] has gradually enfeebled every state which has adopted it. The Italian republicks seem to have begun it.... Spain seems to have learned the practice from the Italian republicks, and (its taxes being probably less judicious than theirs) it has, in proportion to its natural strength, been still more enfeebled.... France... languishes under an oppressive load.... The republic of the United Provinces [of the Netherlands] is as much enfeebled by its debts as either Genoa or Venice.

And finished by asking the rhetorical question: "Is it likely that in Great Britain alone a practice, which has brought either weakness or desolation into every other country, should prove altogether innocent?"

Supporters of Britain's fiscal-military establishment in the mid-eighteenth century advanced two arguments that its policies were sustainable. First, British peacetime revenues did exceed peacetime expenditures plus interest, and there was a "sinking fund" to buy back the outstanding principal of the debt. Second, Britain's tax system was fairer and put less of a burden on the economy.

But Smith did not believe that the "sinking fund" provided any economic security. Governments would raid the sinking fund: even "during the most profound peace, various events occur which require an extraordinary expence, and government finds it always more convenient to defray this expence by misapplying the sinking fund..." Raising taxes was difficult, for "every new tax is immediately felt.... [But] a momentary suspension of the [re]payment of the debt is not immediately felt by the people, and occasions neither murmur nor complaint.... Hence the usual misapplication of the sinking fund." Smith saw—correctly—the steady rise in debt as a share of national product that took place throughout the eighteenth century.

Smith was also not reassured by the relative efficiency and fairness of the British tax system in the eighteenth century:

> The system of taxation established in those [other] countries, it may be said, is inferior to that of England. I believe it is so. But it ought to be remembered, that when the wisest government has exhausted all the proper subjects of taxation, it must, in cases of urgent necessity, have recourse to improper ones. The wise republick of Holland has upon some occasions been obliged to have recourse to taxes as inconvenient as the greater part of those of Spain. Another war begun before any considrable liberation of the publick revenue had been brought about... may... render the British system of taxation as oppressive as that of Holland, or even as that of Spain.... Let us not... rashly conclude that [the British economy] is capable of supporting any burden; nor even be too confident that she could support without great distress a burden a little greater..."

Thus it was not obvious to contemporaries that a prosperous eighteenth century Britain was consistent with the imperial policy and military expenditures necessary for Britain to play the role of an eighteenth-century European great power. From their perspective, at least, the same forces that made a strong state inconsistent with advancing mercantile prosperity in Holland, France, and Spain were at work in Britain as well. The concluding pages of *The Wealth of Nations* are a plea for the reformation of British policy—either distribute the burden of financing Britain's wars more widely so as to eliminate the risk that "imperial overstretch" would push the British economy into the condition of Holland's or Spain's, or abandon empire the wars of continental Europe.

Wrong Answers

Some standard answers for Britain's continued economic success throughout the eighteenth century found in the history books are clearly wrong. As we have seen, it is *not* the case that Britain's status as an island exempted it from the military effort characteristic of continental European powers. It maintained a navy second-to-none *and* it spent enough on a land army to, at times, be a signficant factor in the military balance on the northern European plain. It is *not* the case that the early growth of representative government in Europe placed a check on the expansion of public spending. Rather the reverse: parliamentary power made it possible for Britain to mobilize a *greater* share of national product for war than could its continental adversaries.

Possible Right Answers

Instead, the reasons for Britain's escape from the trap history set for Enlightenment-era economies appear to be four.

In rough order of increasing probable importance:

Ideological Preconditions for Mobilization

First, when Britain's military mobilization began it began all at once, as a near-unanimous decision by the poltiical nation in response to the succession crisis of 1688. Thus Britain's tax system was widely seen as fairer and less destructive than the exemption-ridden systems continental absolutist monarchs had to construct to maintain political support for their military adventures.

As noted above, when Britain entered the European power struggle, the religious order of the country was immediately placed at risk. In most early modern wars kings fought for prestige and provinces, nobles fought for honor and plunder, and soldiers fought for pay. From the moment Britain became a participant in the wars of early modern Europe, its kings were fighting not just for prestige and provinces but for their very right to wear the crown; its nobles were fighting not just for honor and plunder but to preserve their property against the overturn that might well follow the reversal of the protestant religious settlement; and all were fighting for their souls.

Thus taxes that would have been unthinkable in any previous age, or in any other emerging nation-state, were gladly voted by parliament to fight the French. An intrusive infrastructure of tax collectors and customs agents was established. Elsewhere in Europe, aristocrats fought tooth and nail—with substantial success—for exemption from the taxes levied by seventeenth- and eighteenth-century states. In Britain the aristocrats loaded taxes on themselves for fear of the consequences of military defeat and the return of the Roman Catholic Stuart dynasty that they had deposed in favor of the house of Orange and then of Hanover.

Had British absolutism grown up gradually, it would almost surely have a had a less fair and less efficient tax system, resting on a smaller tax base, in a pattern similar to continental absolutisms: the king acquires the power to tax the economy as a whole by offering selective exemption to the nobles who staff the *estates* and the *parlements* that had retained the feudal right to be consulted before royal action became law. The consequences for the mercantile economy of a given level of expenditures would have been significantly more damaging had Britain's military state emerged otherwise than in response to the threat to the protestant succession posed by the potential return of the exiled James II.

Victory and Empire

Second, Britain won its eighteenth century wars. While British victory over Indian princes, American tribes, and the Dutch, French, and Spanish navies in the struggle for trade and empire was not *the* cause of British economic growth, it did plausibly add an extra five or ten percent to national product. In a context in which the key to avoiding economic stagnation is broadening the tax base on which the burden of fighting the next war is placed, the economic benefits of empire may well have been important.

It is here, if anywhere, that the benefits of the "representative" character of British government are to be found. Supplies for war had to be voted by Parliament, an assembly of landlords with financiers and merchants mixed in. The government had to maintain the confidence of the monarch in order to retain power, but it also had to retain the confidence of the Parliament. Throughout the eighteenth century, kings were eager to project British military power onto the European continent proper—the dynastic interests of William III as Stadholder of the United Provinces, and of George I through III as Electors of Hanover.

Mercantile interests in Parliament were more willing to vote for war if the government would adopt a "navy first" strategy: thus the requirement of maintaining Parliamentary confidence led the government to adopt a military strategy more oriented toward the mercantilist and imperial maritime power that Britian became. Representation—constraints on the monarch—did not diminish the size of the war effort appreciably, but in all probability did shift its direction somewhat.

The Late Arrival of the Modern State

Third, the early modern state—capable of mobilizing ten to twenty percent of national product for war—came to Britain relatively late, in 1690 rather than in 1550. Thus the British economy had an extra century and a half to grow without having to bear the burden of a large military establishment. It is hard to see the late arrival of the modern state in Britain as due to anything other than luck: the shakiness of the Tudor dynasty and the foreignness of the Stuart dynasty prevented the kind of consolidation of authority that was ongoing in Spain, France, and Prussia in the sixteenth and seventeenth centuries.

Thus Britain's national debt was an insignificant fraction of national product as late as 1688. By that time Spanish absolutism, and its consequent wars, had burdened the Spanish economy for nearly two hundred years. And French absolutism begun by Henry IV and Cardinal Richelieu was three quarters of a century old. A late start gave the burden of early modern wars less time to press down the economy.

Demography

Fourth and probably most important, however, British peak military effort coincided with an extraordinary demographic upswing that provided a larger resource base on which the debt left over from the last generation's wars placed a smaller burden.

Thus in the last analysis, a large part of the answer must be demographic: Britain's population in 1800 was 2.5 times its population in 1600; France's population in 1800 was only 50 percent more than in 1600; Holland's population in 1800 was only one-third more than in 1600; Spain's population in 1800 was only one-quarter more than in 1600. If Britain's population had been stagnant in the eighteenth century (and if Britain had maintained its historical military effort), by the end of the American Revolution in 1783 Britain's national debt would have been not 1.3 times a year's national product but 2.1 times a year's national product—and its national debt in 1820 would have been not three times a year's national product but seven times a year's national product. Such a debt would have imposed an unsustainable burden on the economy: perhaps 28 percent of national product would have been levied in taxes to pay debt service in 1820, a burden that a growing economy could not have stood.

Many histories of Europe dwell on the fortunate coincidence of an “agricultural revolution” in Britain coming just on the eve of the Industrial Revolution to make it possible. Such histories usually see the agricultural revolution as allowing the release of labor from subsistence farming to industrial production. But here we see another, possibly more important implication of an “agricultural revolution,” and of changes in Europe’s climate that made the north somewhat more hospitable.

Without rapid population growth in eighteenth century Britain, it is possible that we would not be here today: the burden of eighteenth-century wars might well have strangled economic growth. Indeed, Jeffrey Williamson (1984) has convincingly argued that the burden of fighting Britain’s wars did slow growth significantly. Remove Britain’s demographic upswing, and Williamson’s calculations of “crowding out” imply a British economy shrinking in terms of output per capita from 1780 to 1820.

It is important to stress that Britain’s escape was the result of a fortunate combination of causes: a nation united for war; the late arrival of the modern state; the plunder from overseas empires; and last—and most important—the demographic upswing had nothing to do with each other. It is easy to imagine a world in which one, two, three, or all four of these factors were missing.

Had one of these four factors been missing, and it is still likely that Britain would still have been the site of the first industrial revolution. Remove two or more, and it is likely that we would now write the history of eighteenth-century Britain as we do the history of sixteenth-century Spain or seventeenth-century Holland: an era of mercantile brilliance and political power that ended in long-run economic stagnation and decline.

V. Conclusion

In the first half of this millennium, European economic growth was enabled in part by the relative ineptness of Europe's military aristocracy: only in Europe were self-governing city-states able to maintain their independence against centralizing princes; only in Europe did merchants have a chance to rule, and to shape policies that saw economic growth as an end in itself, rather than as a means to courtly splendor or to military power.

In the third quarter of this millenium, the traditional centers of the European economy—the Mediterranean coast of Aragon, northern Italy, the southern half of the Low Countries around Antwerp, Brussels, Ghent, Bruges, and Lille—went into decline, in large part because of the burden of financing the military effort made possible by the new bureaucracies of "absolutist" monarchs.

Britain—and only Britain—*was* able to be a European great power, finance its wars at whatever level of spending seemed necessary, and still see sufficient economic growth in the eighteenth century to trigger an Industrial Revolution. This is an extraordinary event, and not one foreordained. Contemporary observers like Adam Smith (1776), in his *Wealth of Nations,* wrote of the likely ruin of European economies—not exempting Britain's—under the burden of national debt created by the enormous war expenditures made possible by the military mobilizations undertaken by early-modern states.

Lessons

What lessons can we draw for economic development today from this excursion into the *minutiae* of early modern history? What advice should governments take, and should those of us who are concerned about institutional and constitutional frameworks to constrain and empower governments? The lessons appear to be four:

The first and most important lesson is *be lucky*. Of the perhaps six European proto-nation-states that in the sixteenth through eighteenth centuries acquired the potential to tax and mobilize ten or more percent of national product, all but one used this power in a way that severely retarded economic growth. And that one's escape is due in large part to a fortunate coincidence of many different factors—or, in other words, in large part to good luck

The second lesson is *do not expect too much.* Rates of per capita output growth in the developing world since 1945—even including Africa, and even excluding the East Asians—appear to be roughly twice what European countries accomplished in the nineteenth century, when they had similar shares of their populations in agriculture. Given the extra roles played by modern governments, and given the difficulties faced by even the most technologically advanced pre-industrial economies in continuing growth under the burden of their more limited governments, I believe that we should be grateful for development progress that has been made rather than disappointed that progress has not been faster.

The third lesson is *unite the nation.* Britain's military effort was based on a system of finance established in the context of an emergency near-universal consensus of the political nation that a stronger state was necessary. Absolutism in France, or Spain, or even the Netherlands was the result of bargaining between the central authority and other politically powerful groups: we will back your authority to tax the economy if we are granted significant exemptions and special privileges. Comparing British and French public finances on the eve of the French Revolution, it seems clear that British public finance caused much less discontent—and probably much less distortion and damage to the economy.

The last lesson is do what can be done to raise economic growth higher on the list of policy makers' priorities. This is hard, because at least from the high seats of rulers and politicians other considerations rank higher than policies to enhance long-run economic growth *for what seem to politicians and princes to be good reasons.* Woodward (1994) writes of how it was "ridiculous to talk to a politicians about the distant future. To mention [benefits achieved at] 'infinity' [in the future] was patently absurd.... More vividly... he was presenting [President] Clinton with costs that would be paid in his presidency and benefits that would come several presidencies into the future." Yet politicians pursue not only *material* but also what Max Weber termed *ideal* interests—the approval of one's peers, confidence in one's religious salvation, glory, and honor are very, very real, and are powerful motivations of human action.

And here economists can perhaps have *some* impact: to some degree, we can play with the minds of politicians and princes. We can, by our collective approval and disapproval, help assure them that adopting policies with long-term development benefits will give them a favorable place in the history books—"William the Good" as opposed to "Ronald the Badly-Advised"—and an old age in which they are honored and respected advisers and elders, rather than reviled as the standard-bearers for failed policies. The work is difficult. The effects are marginal at best.

Yet still the work is worth doing.

I was lucky enough to work for Lloyd Bentsen when he was Treasury Secretary. He told a story a couple of times that President Kennedy had told. He spoke of an aged and retired French commander, Marshall Lyautey, giving instructions to the head gardener of his country estate: "...and I want to plant two rows of oak trees," the Marshall said, "one on each side of that drive. Start planting them tomorrow."

"But my Marshall," the gardener replied, "those trees will take fifty years to grow!"

"Oh," said the Marshall. "In that case, there is no time to lose. Start planting them this afternoon."

Bibliography

Of all the works read in the process of writing this essay, I found seven to be particularly useful and particularly excellent. They are:

- John Brewer, *The Sinews of Power: War, Money, and the English State, 1688-1763;*
- Carlo Cipolla, ed., *The Economic Decline of Empires* ;
- Jan de Vries, *European Urbanization, 1500 - 1800* ;
- J.H. Elliott, *Richelieu and Olivares* ;
- Geoffrey Parker, *The Army of Flanders and the Spanish Road* ;
- Charles W. Wilson, “Trade, Society, and the State,” in *The Cambridge Economic History of Europe, vol. IV;*
- Jeffrey Williamson, “Why Was British Growth So Slow During the Industrial Revolution?” *Journal of Economic History* 44:3 (September 1984).

The full list of works consulted is below:

Paul Bairoch, *De Jericho a Mexico: Villes et Economie dans l’Histoire* (Paris: Gallimard, 1985).

Paul Bairoch, Jean Batou, and Pierre Chevre, *La Population des Villes Europeenes de 800 a 1850* (Geneva: Librarie Droz, 1988).

Marc Bloch, *Feudal Society*, trans. L. A. Manyon (Chicago: University of Chicago Press, 1961).

C.R. Boxer, *The Dutch Seaborne Empire* (New York: Knopf, 1965).

Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. S. Reynolds (New York: Harper and Row, 1972).

Fernand Braudel, *The Perspective of the World,* trans. S. Reynolds (New York: Harper and Row, 1984).

Geoffrey Brennan and James M. Buchanan, *The Power to Tax: Analytical Foundations of a Fiscal Constitution* (Cambridge: Cambridge University Press, 1980).

John Brewer, *The Sinews of Power: War, Money, and the English State, 1688-1763* (New York: Alfred A. Knopf, 1989).

Jacob Burckhardt, *The Civilization of the Renaissance in Italy*, trans. S.G.C. Middlemore (New York: Harper and Row, 1958).

Tertius Chandler and Gerald Fox, *3000 Years of Urban Growth* (New York: Academic Press, 1974).

Carlo Cipolla, ed., *The Economic Decline of Empires* (London: Methuen, 1970).

Carlo M. Cipolla, *Before the Industrial Revolution: European Society and Economy, 1000 - 1700* (New York: Norton, 1976).

Gregory Clark, “Government Debt, War, and Crowding Out: England 1727-1837” (Davis, CA: U. C. Davis, 1995).

Philippe de Commynes, *Memoirs: The Reign of Louis XI 1461-83* (New York: Penguin, 1972; orig. date 1498).

Benedetto Croce, *History of the Kingdom of Naples,* trans. F. Frenaye (Chicago: University of Chicago Press, 1970).

Jan de Vries, *European Urbanization, 1500 - 1800* (Cambridge, Mass: Harvard University Press, 1984).

J.H. Elliott, “The Decline of Spain,” in Carlo Cipolla, ed., *The Economic Decline of Empires* (London: Methuen, 1970).

J.H. Elliott, *Imperial Spain* (London: Edward Arnold, 1963).

J.H. Elliott, *Richelieu and Olivares* (Cambridge: Cambridge University Press, 1983).

J.H. Elliott, *The Count-Duke of Olivares: The Statesman in an Age of Decline* (New Haven: Yale University Press, 1986).

Francois L. Ganshof, *Feudalism*, trans. P. Grierson (London: Longmans, Green, 1952).

Ernest Gellner, “Introduction” in Jean Baechler, John Hall, and Michael Mann, eds., *Europe and the Rise of Capitalism* (London: Blackwell, 1988).

Charles Haskins, *The Normans in European History* (New York: F. Ungar, 1915).

Paul M. Hohenberg and Lynn Lees, *The Making of Urban Europe, 1000 - 1950* (Cambridge, Mass.: Harvard University Press, 1985).

Sidney Homer and Richard Sylla, *A History of Interest Rates* (New Brunswick, NJ: Rutgers University Press, 1991).

Michael E. Howard, *War in European History* (New York: Oxford University Press, 1976).

Albert Imlah, *Economic Elements in the Pax Britannica* (Cambrdge: Harvard University Press, 1958).

Eric L. Jones, *The European Miracle: Environments, Economies, and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981).

Ernst Kantorowicz, *Frederick the Second 1194-1250* (New York: Ungar, 1931) [orig. German pub. 1928].

Paul Kennedy, *The Rise and Fall of the Great Powers* (1987).

Michael Mann, *Sources of Social Power* (Cambridge: Cambridge University Press, 1986).

Colin McEvedy and Richard Jones, *Atlas of World Population History* (New York: Penguin, 1978).

William H. McNeill, *Venice: The Hinge of Europe, 1081-1797* (Chicago: University of Chicago Press, 1974).

William H. McNeill, *The Rise of the West: A History of the Human Community* (Chicago: Chicago University Press, 1963).

B.R. Mitchell and P. Deane, *Abstract of British Historical Statistics* (Cambridge: Cambridge University Press, 1971).

Joel Mokyr, “Has the Industrial Revolution Been Crowded Out?” *Explorations in Economic History* 24 (July 1987), pp. 293-319.

Charles Louis Secondat, Baron de Brede et de Montesquieu, *The Spirit of the Laws* (Paris: 1748).

Akira Motomura, “Political Institutions and the Finance of the Spanish Monarchy, 1521-1648” (Stonehill College, 1995).

Larry Neal, *The Rise of Financial Capitalism* (Cambridge: Cambridge University Press, 1990).

Douglass North, *Structure and Change in Economic History* (New York: W.W. Norton, 1981).

Douglas North and Robert Thomas, *The Rise of the Western World* (Cambridge: Cambridge University Press, 1973).

Mancur Olson, “Autocracy, Democracy, and Prosperity,” in Richard Zeckhauser, ed., *Strategy and Choice* (New York: M.I.T. Press, 1991).

Mancur Olson, “Dictatorship, Democracy, and Development,” *American Political Science Review* 87:3 (September 1993), pp. 567-576.

R.R. Palmer and Joel Colton, *A History of the Modern World* (New York: Knopf, 1984).

Geoffrey Parker, *The Dutch Revolt* (Ithaca, NY: Cornell University Press, 1977).

Geoffrey Parker, *The Army of Flanders and the Spanish Road* (Cambridge: Cambridge University Press, 1972).

J.H. Parry, *The Spanish Seaborne Empire* (London: Hutchinson, 1966).

J.H. Plumb, *The Growth of Political Stability in England: 1675-1725* (London: Macmillan, 1967).

Gianfranco Poggi, *The Development of the Modern State: A Sociological Introduction* (Stanford, Calif.: Stanford University Press, 1978).

Steven Runciman, *The Sicilian Vespers* (Cambridge: Cambridge University Press, 1958).

Josiah Cox Russell, *Medieval Regions and their Cities* (Bloomington: Indiana University Press, 1972).

Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (London: 1776).

R. W. Southern, *Western Society and the Church in the Middle Ages* (Harmondsworth, England: Penguin Books, 1970).

Joseph R. Strayer, *On the Medieval Origins of the Modern State* (Princeton: Princeton University Press, 1973).

G. Sundbard, *Apercus Statistiques Internationaux* (Stockholm, 1908).

Charles Tilly, *Capital, Coercion, and European States* (Berkeley: University of California, 1990).

Francois Velde and David Weir, “The Financial Market and Government Debt Policy in France, 1746-1793,” *Journal of Economic History* 52:1 (March 1991), pp. 1-41.

Max Weber, *Economy and Society* (Berkeley: University of California, 1968).

C.V. Wedgwood, *William the Silent: William of Nassau, Prince of Orange, 1533-84* (New Haven: Yale University Press, 1944).

Jeffrey Williamson, “Why Was British Growth So Slow During the Industrial Revolution?” *Journal of Economic History* 44:3 (September 1984), pp. 687-712.

Charles W. Wilson, “Trade, Society, and the State,” in *The Cambridge Economic History of Europe, vol. IV: The Economy of Expanding Europe in the Sixteenth and Seventeenth Centuries* (Cambridge, UK: Cambridge University Press, 1967).

Robert Woodward, *The Agenda*(New York: Simon and Schuster, 1994).

Lynn White, Jr., *Medieval Technology and Social Change* (Oxford: Oxford University Press, 1962).

World Bank, *World Development Report 1991* (New York: Oxford University Press, 1991).

E.A. Wrigley and R. Scofield, *The Population History of England and Wales* (Cambridge: Cambridge University Press, 1981).