

# Princes and Merchants: European City Growth before the Industrial Revolution\*

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## Abstract

As measured by the pace of city growth in western Europe from 1000 to 1800, absolutist monarchs stunted the growth of commerce and industry. A region ruled by an absolutist prince saw its total urban population shrink by one hundred thousand people per century relative to a region without absolutist government. This might be explained by higher rates of taxation under revenue-maximizing absolutist governments than under non-absolutist governments, which care more about general economic prosperity and less about State revenue.

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## 1. Introduction

One of the oldest themes in economics is the incompatibility of despotism and development. Economies in which security of property is lacking—either because of the possibility of arrest, ruin, or execution at the command of the ruling prince, or the possibility of ruinous taxation—should, according to economists, see relative stagnation. By contrast, economies in which property is secure—either because of strong constitutional restrictions on the prince, or because the ruling élite is made up of merchants rather than princes—should prosper and grow. This theme is found in Adam Smith (1776), who argued that:

...in all countries where there is tolerable security [of property], every man of common understanding will endeavour to employ whatever [capital] stock he can command....A man must be perfectly crazy who, where there is tolerable security [of property], does not employ all the [capital] stock which he commands.... In those unfortunate countries...where men are continually afraid of the violence of their superiors, they frequently bury and conceal a great part of their [capital] stock...in case of their being threatened with any of those disasters to which they consider themselves as at all times exposed. This is said to be a common practice in Turkey, in Indostan, and, I believe, in most other governments of Asia. It seems to have been a common practice among our [feudal] ancestors...

But even in Adam Smith's day the theme was old. It had been used more than a quarter century before Smith by Montesquieu (1748) to make sense of the contrast between the booming commercial economies of republican Holland and constitutional England and what he saw as the stagnant economy of absolutist eighteenth-century France:

Great enterprises in commerce are not found in monarchical, but republican governments....[A]n opinion of greater certainty as to the possession of property in these [republican] states makes [merchants] undertake everything.... [T]hinking themselves sure of what they have already acquired, they boldly expose it in order to acquire more....A general rule: A nation in slavery labors more to preserve than to acquire; a free nation, more to acquire than to preserve.

We can hear echoes of the importance of this theme in the standard narrative histories of European nations. Such histories will often describe in one chapter of the rise of strong dynasties with powerful armies. And in the next chapter they will describe subsequent urban and mercantile decline. The Norman d'Hauteville dynasty, for example, conquered Sicily and southern Italy in the eleventh century when it was the most prosperous and urbanized region in Europe. The

government the d’Hautevilles founded was the most centralized and powerful in Europe.<sup>1</sup> But after its Norman conquest southern Italy’s prosperity declined, especially when measured relative to the prosperity of the city states of northern Italy. Imperial Spain was the core of the immense empire ruled by absolutist Habsburg princes in the sixteenth and seventeenth centuries. They imposed heavy tax burdens on the prosperous towns of Catalonia and Andalusia to fight the wars of the Counterreformation. Spain’s Imperial golden age somehow also saw its cities lose wealth and population. By 1800 Spain had become a relative backwater.

European history also presents cases where cities grew rapidly and commerce flourished in the absence of strong princes in regions where political power was held by merchant oligarchies, or checked by constitutional limitations and representative assemblies. The city states of northern Italy, of the low countries, and of Burgundy prospered and grew in the later middle ages and the Renaissance before they came under autocratic Habsburg control in the sixteenth century. Before the Industrial Revolution the Netherlands and Great Britain flourished under constitutional governments: the Netherlands after their successful revolt against Spain, and Great Britain after its “Great Rebellion” of 1640–1660 and “Glorious Revolution” of 1688 that together established the absolute supremacy of Parliament in matters of taxation.<sup>2</sup>

In this paper, we take up the theoretical and narrative contrast between growth under princes and merchants using more systematic data. Between 1050 and 1800 some areas of western Europe were governed by strong princely rulers, whom we call “absolutist,”<sup>3</sup> who saw the legal order as an instrument of control rather than as a constraint on their actions. Other areas were free from such princes. Some had maintained feudal customs or won charters of liberties that limited princely authority—“societies of estates” in which groups like landowners, guildmasters, and burghers had long-standing rights, and the monarch was but one “estate” among others. Other regions were dominated by merchant-ruled city-states (see Poggi, 1978)

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<sup>1</sup>Called by Ernst Kantorowicz (1928) “the first absolutist monarchy in Europe.”

<sup>2</sup>For the southern Italian autocracy, see Croce (1970), Runciman (1958), Kantorowicz (1928), and Burckhardt (1958). For Spain, see Elliott (1963 and 1986), Parry (1966), and Palmer and Colton (1984). For the low countries (now Belgium and Holland), see Wedgewood (1944), Boxer (1965), and Palmer and Colton. Similarly, for Britain see Palmer and Colton, and Plumb (1967).

<sup>3</sup>We stretch the category of “absolutist” to include such examples as the Norman *regno* of southern Italy. Certainly the state and the administrative apparatus of the d’Hautevilles and the Hohenstaufens was feeble and inefficient compared to the bureaucracies and administrations of the seventeenth- and eighteenth-century states that are usually termed “absolutisms.” Nevertheless, there is a qualitative difference between other feudal monarchies and those set up in Norman conquest kingdoms like Sicily. Those who would support our inclusive definition of “absolutism” include not only Kantorowicz (1928) but also Haskins (1915) and Runciman (1958).

De Vries (1984) divides western Europe into regions that follow 1914 boundaries. We find that, on average, each century that such a region is free of government by an absolute prince its total population living in cities of 30,000 or more inhabitants grew by 120,000, relative to a century of absolutist rule. This difference is larger than the average growth rate of urban populations in European regions between 1000 and 1800. In a purely statistical sense, therefore, the association between absolutism and slow city growth can more than account for why some western European regions had relatively low rates of urbanization in 1800, while others had flourishing cities and abundant commerce. Strong princely rule is systematically associated with retarded urban commerce. By contrast, more restricted governments that give a voice or a constitutional veto to merchants or assemblies of landed magnates are systematically associated with much faster urban growth. The pattern that Smith and Montesquieu noted does not hold merely between constitutional Europe and despotic Asia, or between constitutional Britain and despotic France, but more generally across the western half of the European continent in the millenium before the industrial revolution.

Montesquieu and Smith—but also more recent reformulations by North and Thomas (1973), North (1981), Brennan and Buchanan (1980), and Olson (1991)—account for this regularity by drawing a contrast between the economic effects of despotic and of limited government. In their view, absolutist princes are concerned primarily with the tax revenues that their domains yield, tax in order to maximize revenue, and so cripple the economies they govern. By contrast, limited governments are more concerned with private economic prosperity: either they are led by merchant oligarchs who have a stronger interest in maintaining and expanding the flow of commerce than in the power of the state and the splendor of the court, or they give a veto to parliaments or estates-general that feel the weight of heavy taxes. The logic of the situation suggests that such governments would set tax rates that are lower to minimize their disruptive effect on the economy—at least on the economy considered as a source of rents for landed gentry and commercial profits for merchant oligarchs. Thus they should have more of a bias toward promoting economic growth.

The next section of the paper describes the data on urban populations we use, and briefly argues that urban populations are good measures of pre-industrial economic prosperity. We use two different databases of European city populations; one we term the “Russell-de Vries” database, and the other we call the “Bairoch” database. Section 3 classifies political régimes. Section 4

presents statistical evidence. Section 5 interprets the statistical findings. And section 6 concludes.

## 2. Data

The larger pre-industrial cities of Europe were nodes of information, industry and exchange in areas where the growth of agricultural productivity and economic specialization had advanced far enough to support them. They could not exist without a productive countryside, and a flourishing trade network. The population of Europe's pre-industrial cities is a rough indicator of economic prosperity (see Hohenberg and Lees, 1985).

This correlation between economic prosperity and city size may not hold in general for the pre-industrial world. The population of Tenochtitlan, or Peking, or Imperial Rome had more to do with the power of the networks of tribute and redistribution that underlay their respective empires than with mercantile prosperity. Such consumption-intensive "parasite cities," to use Bairoch's (1985) term, were centers of neither trade nor urban industry but instead the homes of bureaucrats and the favored dwelling places of landlords. But the primarily rural orientation of Europe's Mediæval ruling class meant that Europe's cities did not develop as centers of landlord consumption or of territorial administration. Thus we can use the sizes of European cities as indicators of commercial prosperity only because the typical post-Classical *European* city was primarily a center of commerce, and not of bureaucracy, administration, or landlord consumption (Weber, 1968).

For our purposes, Europe's larger cities are also important indicators of economic prosperity because they are highly visible: contemporary historians and travellers and modern-day urban archeologists all give estimates of city size and prosperity. Other quantitative indicators of economic prosperity on an aggregate level before the industrial revolution are very scarce. We use the numbers and sizes of large pre-industrial cities as an index of economic activity, and changes in the numbers of cities and the sizes of urban populations as indicators of economic growth.

To measure the growth of western European cities, we use two databases. The first was constructed by taking estimates of city sizes over 1500 to 1800 from de Vries (1984),<sup>4</sup> and

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<sup>4</sup>De Vries constructs population estimates from archives: church attendance lists, baptisms and burials, censuses, tax records, and so forth. He accepts as sources "secondary works, usually town histories, where the historian makes population estimates based on his general knowledge about the city."

estimates for the period before 1500 from Russell (1972) as amended by subsequent work.<sup>5</sup> De Vries and Russell used both primary and secondary sources in constructing their estimates.

The second database was constructed by Bairoch, Batou, and Chèvre (1988), also from both primary and secondary sources.<sup>6</sup> Some confidence in the reliability, or at least the consistency, of the databases can be gained by noting that Bairoch's data fits closely with the independently-derived database of de Vries toward the end of the pre-industrial period. Their estimates for the sum of the populations of the 91 cities over 20,000 in 1700 differ by only 0.6 percent. Their estimates for the sum of the populations of the 62 cities with populations more than 20,000 and less than 50,000 differed by only 2.5 percent. Such close agreement of two independently-constructed databases is remarkable.

Earlier years show more divergence between the two databases. The Bairoch database estimated somewhat larger urban populations than does the Russell-de Vries database for the years before the Renaissance. The greatest difference arises because Bairoch accepted higher estimates for the population of early medieval cities than Russell believed plausible given his assessments of the settled urban area. The divergences are most serious in the cases of early medieval Muslim Mediterranean cities, like Cordova and Palermo, that were both mercantile and governmental centers. Russell rejected the high estimates of these cities' populations as implausible.

### *Pre-Industrial Cities*

Table 1 shows populations of western Europe's thirty largest cities, according to the Bairoch database, at six points in time—in the first half of the eleventh century, at the end of the twelfth, on

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<sup>5</sup>Russell puts more stress on estimates of the size of the inhabited area at a given time as a way to estimate population. He argues that the average density of a medieval city was about 120 persons per hectare, with the most densely populated cities approaching 200 persons per hectare. Russell thus rejects high estimates in the several hundreds of thousands for the circa 1000 population of Mediterranean cities like Cordova, Palermo, and Constantinople, because according to his calculations the built-up areas of these cities were too small to support such populations. Our Russell-de Vries database is available from the authors upon request.

<sup>6</sup>Bairoch et al. began with the estimates of city size provided by Chandler and Fox (1974), and extended them using Sundbard (1908) and the international retrospective sections of the official French *Annuaire Statistique*. They continued to add to and correct their database for more than a decade, following what they call a "craftsmanlike" approach: "...the system was...1) replace a figure each time a more recent source revealed an alternative, but without systematically noting the reference...2) add...previously unavailable figures...following the same procedure." The Bairoch database is printed in Bairoch, Batou, and Chèvre (1988), and is available in machine-readable form from the Centre d'Histoire Economique Internationale of the Université de Genève.

the eve of the Bubonic Plague in the early fourteenth century, at the beginning of the sixteenth, at the middle of the seventeenth, and at the end of the eighteenth centuries. Table 1 presents, and throughout the paper we use, fourteenth-century population estimates as of ca. 1330 rather than 1350. By 1350 some cities had been severely hit by the first wave of the black plague, while others were still untouched. To use 1350 population estimates would give a false picture of urban development in the thirteenth and early fourteenth centuries.

As Table 1 shows, in the year 1000 western Europe was a backwater. North of the urban Muslim centers of Cordova in southern Spain and Palermo in Sicily (of large but uncertain populations) there were at most four cities with populations of 40,000 or more: Venice, Naples, perhaps Rome, and perhaps Regensberg in Germany. By contrast, the Mediterranean fringe of Europe under Muslim rule had at least four cities with populations over 40,000: Palermo, and the three Muslim Spanish cities of Granada, Seville and Cordova. The largest of these cities may have been larger than any other European city was to be until the seventeenth century.

Table 1  
The Thirty Largest Cities in Europe, 1050–1800

ca. 1050	ca. 1200	ca. 1330	ca. 1500	ca. 1650	ca. 1800						
Cordova*	450	Palermo	150	Granada	150	Paris	225	Paris	400	London	948
Palermo*	350	Paris	110	Paris	150	Naples	125	London	350	Paris	550
Seville	90	Seville	80	Venice	110	Milan	100	Naples	300	Naples	430
Salerno	50	Venice	70	Genoa	100	Venice	100	Lisbon	150	Vienna	247
Venice	45	Florence	60	Milan	100	Granada	70	Venice	140	Amsterdam	217
Regensberg	40	Granada	60	Florence	95	Prague	70	Milan	120	Dublin	200
Toledo	37	Cordova	60	Seville	90	Lisbon	65	Amsterdam	120	Lisbon	195
Rome	35	Cologne	50	Cordova	60	Tours	60	Rome	110	Berlin	172
Barbastro	35	Leon	40	Naples	60	Genoa	58	Madrid	100	Madrid	168
Cartagena	33	Ypres	40	Cologne	54	Ghent	55	Palermo	100	Rome	153
Naples	30	Rome	35	Palermo	51	Florence	55	Seville	80	Palermo	140
Mainz	30	Bologna	35	Siena	50	Palermo	55	Florence	74	Venice	138
Merida	30	Toledo	35	Barcelona	48	Roma	55	Vienna	70	Milan	135
Almeria	27	Verona	33	Valencia	44	Bordeaux	50	Granada	70	Hamburg	130
Granada	26	Narbonne	31	Toledo	42	Lyon	50	Marseille	70	Lyon	109
Speyer	25	Salerno	30	Bruges	40	Orleans	50	Copenhagen	65	Copenhagen	101
Palma	25	Pavia	30	Malaga	40	London	50	Genoa	64	Marseille	101
Laon	25	Messina	30	Aquila	40	Bologna	50	Bologna	63	Barcelona	100
London	25	Naples	30	Bologna	40	Verona	50	Antwerp	60	Seville	96
Elvira	22	Genoa	30	Cremona	40	Brescia	49	Brussels	60	Bordeaux	96
Cologne	21	Angers	30	Pisa	38	Cologne	45	Lyon	60	Genoa	90
Trier	20	Palma	30	Ferrara	36	Seville	45	Rouen	60	Manchester	84
Caen	20	Speyer	30	London	35	Marseille	45	Danzig	60	Edinburgh	83
Lyon	20	Worms	28	Montpellier	35	Malaga	42	Leiden	55	Turin	82
Paris	20	Ferrara	27	Rouen	35	Valencia	42	Valencia	50	Florence	81
Tours	20	Orleans	27	St.-Omer	35	Ferrara	42	Prague	50	Valencia	80
Verona	20	Metz	27	Lisbon	35	Rouen	40	Hamburg	40	Rouen	80
Worms	20	Valencia	26	Angers	33	Cremona	40	Cologne	40	Nantes	77
Lisbon	15	Cremona	25	Marseille	31	Nuremburg	38	Nuremburg	40	Stockholm	76
Florence	15	London	25	Toulouse	30	Bruges	35	Ghent	40	Prague	76

\*Russell's estimates of the populations of Cordova and Palermo in 1050 are only one-third as large.

The five centuries from 1000 to 1500 saw a shift in the center of gravity of the European economy northward. Only Naples on the Mediterranean ranked among the largest cities. The largest cities were on the northern edge of the Mediterranean, or even further north.

Other, smaller, centers of urban commerce and industry included Bruges and Antwerp in what was to become Belgium; Rouen and Lyon in France; and Brescia, Genoa, Padua, Bologna, Florence, and perhaps one or two more in northern Italy. The center of gravity of urban life had shifted from the southernmost edge of Europe to an axis from the Low Countries to Lombardy.

By 1800, western Europe had become the most prosperous and economically advanced region in the world. South of the Baltic Sea, north of the Mediterranean, and west of Wrocław [formerly Breslau] and Königsberg [now called Kaliningrad] were perhaps 56 cities of 40,000 or more, of which perhaps 16 had more than 100,000 people. London and Paris had populations greater than 500,000.

Cities of more than 100,000 population included Dublin, Amsterdam, Hamburg, and Berlin in northern Europe; Vienna, Lyon, Milan, Venice, Rome, Naples, Palermo, Barcelona, Madrid, and Lisbon in southern Europe. The center of gravity of European urban life had shifted even further northward. Perhaps most startling was the growth of large urban population centers in Britain and Ireland. Twelve of the fifty-six largest cities in western Europe were located in the British isles. Only one of these—London—had ranked among the fifty largest cities of western Europe even two centuries earlier.

### 3. Political Régimes

#### *Absolutist Régimes*

We classify western European governments into two broadly defined classes of régimes: absolutist states and all others. Absolutist states are characterized by the subjection of the legal framework to the prince's will. As Cardinal Richelieu, the creator of French absolutism, explained to his master Louis XIII, his policies were aimed at “ensuring that your majesty is absolutely obeyed by great and small” and at eliminating all rival centers of power and resistance: “to reduce and restrict those bodies which, because of their pretensions to sovereignty, always oppose the good of the realm” (Poggi, 1978). And “the good of the realm” meant “the will of the king”: it was Louis XIII's son Louis XIV who brought Bourbon dynasty absolutism to its peak and said: “the State—that's me.”

In absolutist regimes “property”—defined broadly to encompass everything from estates, to ranks, to monopolies, to means of production—was always potentially insecure. Subjects do not have rights; they have privileges, which endure only as long as the prince wishes. An absolutist government thus comes close to Mancur Olson's (1991) pure type of a stationary bandit, or Brennan and Buchanan's (1980) constitutionally-unconstrained Leviathan. Such a government has a monopoly on theft—called “taxation”—in a territorial domain. A stationary bandit squeezes the

territory until he extracts the maximum revenue: his incentive to extract resources is restricted only in that he has an interest in keeping the people prosperous enough for him to extract more resources in the future, and is augmented by the possibility of using taxes from his current domain to conquer other lands.

Canonical examples of such absolutist states are the seventeenth-century France of Louis XIV “the sun king” Bourbon and sixteenth-century imperial Spain under Philip II “the prudent” Habsburg. Borderline cases include the thirteenth-century Kingdom of Naples under Frederick II “the wonder of the world” Hohenstaufen, and the English kingdom as established after the Norman conquest destroyed subordinate territorial lordships.<sup>7</sup>

### *Non-Absolutist Régimes*

Governments that lacked a single strong prince exhibited wide variation. Some regions see the establishment of constitutional monarchies—“governments of estates,” in which the prince is bound by the law. As Poggi puts it, “the law was the distinctive package of rights and privileges traditionally claimed... it existed in the form of differentiated legal entitlements. Such law could be modified by the Estates when entering into or renewing compacts with the ruler... but... could not be modified at the will of any one party.”

Under such régimes the legal framework was not an instrument of the prince’s rule, but more of a semi-feudal contract between different powers establishing the framework of their interactions. Legal judgments could be enforced only with the consent of parlements. Taxes could be raised only with the consent of feudal estates. Both of these bodies had a feudal duty to implement the prince’s judgments and to advise him on the law. Their interpretation of the duty to advise the prince was often close to an assertion that they had the authority to veto: their major threat was to refuse to assist in tax assessment and collection until their substantive demands were met.

The canonical example of such a limited and constitutional monarchy is Britain under the

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<sup>7</sup>Lords nominally subject to the kings of France, like the dukes of Burgundy or of Aquitaine, could draw on their compact and extensive territorial domains for support and defy the king of France almost at will within their domain—in one famous episode the Valois king Louis XI “the spider” was lucky to escape with his life after a visit to the domain of the duke of Burgundy, Charles “the rash” (see Commynes, 1498) By contrast William I of England and his successors prevented the emergence of such compact territorial lordships, and so were able from a very early date to impose a unified system of royal justice on England and extend their administrative reach throughout the country.

houses of Orange and Hanover, after the “Glorious Revolution” of 1688. Other examples are the low countries (Belgium and Holland) when ruled by the dukes of Burgundy, and Catalonia before Ferdinand married Isabella and established absolutism in Spain. Such governments found it much more difficult to increase tax revenues than did absolutist states.

A second type of non-absolutist government was city state-based rule by merchant oligarchies. Self-governing city states directed their own affairs and often controlled substantial tracts of the rural countryside as well. In merchant and burgher-ruled city states, the government was close to a committee for managing affairs in the common interest of the bourgeoisie—a class which has always had a very strong interest in rapid economic growth. The Venetian and Florentine republics are the most often-cited examples (see McNeill, 1974). The Amsterdam-led United Provinces of the Netherlands after the successful revolt by Prince William “the silent” of Orange is another canonical example.

A third group of regions are under “feudal” governments. In theory, feudal government is centralized: each duke or count owes loyalty to the king, each castellan owes loyalty to his count, and each knight owes loyalty to his castellan. In practice, the system lacked authority. Dukes and counts would not necessarily obey the king. Thus Duke Henry “the lion” of Saxony refused a summons from Emperor Frederick I Hohenstaufen “red-beard” to join the imperial army, and the emperor was unable to impose his authority on the northern Italian city states.

Classifying this third group in which the political régime is one of “feudal anarchy” is the most difficult part of the exercise. In some cases each local feudal despot acted like a miniature absolutist prince, imposing confiscatory taxation in order to enhance military power and maintain a properly princely style of life. In other cases jurisdictions were so small that merchants could flee to feudal domains that provided protection, and competition between petty despots to attract merchants and their commerce constrained arbitrary exactions. In still other cases the most powerful political units in feudal anarchy turned out to be mercantile republics, which owed their self-government to the inability of feudal authorities to enforce commands (Bloch, 1961).

One approach to classifying this widely disparate set of political régimes would be to construct a finely-tuned sliding scale. Security of property would vary according to the constitutional constraints on the ruler preventing him from imposing arbitrary taxation, the mechanisms of selection influencing his desired policies, and the ability of the nascent state to protect its subjects from the depredations of local thieves or of other rulers. The major difficulty

with using such a scale is that the classification is inevitably arbitrary. For most of this paper, we take instead the brutal road of dividing western European régimes into only two categories—absolutist and non-absolutist. The simplicity of this classification minimizes discretion, and also focuses attention on the power of the ruler to appropriate private wealth for his own benefit, whether through arbitrary confiscation or ruinous taxation. Constraints on this power appear to us to be the most important determinants of what Adam Smith calls “security of property.” To identify the absence of these constraints, we focus on the presence or absence of absolutist princes. However, to check the robustness of our results, we will also use more finely graded but also more arbitrary classifications.

### *Classification of Régimes*

To classify régimes for our analysis using the Russell-de Vries database, we divide Western Europe into the same regions as used by de Vries (1984), which by and large follow 1914 political boundaries. We split de Vries’ Italian region into two: northern Italy and southern Italy have very different political histories. Southern Italy was conquered from the Muslims and the Byzantines by the d’Hauteville dynasty from Normandy in the first half of the eleventh century. The *regno* then established has been called the first modern state, with a single system of royal justice and an integrated system of tax collection from the middle of the eleventh century. Southern Italy was thus under centralized princely rule for the entire period. Northern Italy, by contrast, secured its effective independence during the Investiture struggle (Southern, 1970). It remained independent from kings, and divided into quarrelling merchant-ruled city-states, until the French and Habsburg invasions of the sixteenth century that brought an end to the Renaissance.

Table 2  
Classification of Western European Régimes, Russell-De Vries Database

Region	1050-1200	1200-1330	1330-1500	1500-1650	1650-1800
Southern Italy	Prince (Norman d'Hautevilles)	Prince (Hohenstaufens and Angevins)	Prince (Aragonese)	Prince (Habsburgs)	Prince (Habsburgs)
Northern Italy	Free (Investiture Struggle)	Free (Republics)	Free (Republics)	Prince (Habsburg Domination)	Prince (Habsburg Domination)
Austria- Bohemia	Free (Feudal)	Free (Constitution)	Free (Constitution)	Prince (Habsburgs)	Prince (Habsburgs)
Germany	Prince (Medieval Empire)	Prince (Anarchy: Great Interregnum)	Prince (Petty Despots)	Prince (Petty Despots)	Prince (Petty Despots)
Netherlands	Free (Feudal)	Free (Constitution)	Free (Constitution)	Free (Dutch Republic)	Free (Dutch Republic)
Belgium	Free (Feudal)	Free (Constitution)	Free (Constitution)	Prince (Habsburgs)	Prince (Habsburgs)
England	Prince (Normans)	Prince (Angevin Empire)	Prince (Wars of Roses)	Prince (Tudors)	Free (Constitution)
France	Free (Feudal)	Free (Feudal)	Free (100 Years' War)	Free (Religious Strife)	Prince (Bourbons)
Spain	Free (Feudal)	Free (Constitution)	Free (Constitution)	Prince (Habsburgs)	Prince (Bourbons)

Thus our analysis of the Russell-de Vries database covers nine regions: Spain, France, northern Italy, southern Italy, Germany, Britain, Belgium, the Netherlands, and Austria-Bohemia. We examine city growth since 1050 over five periods: 1050-1200, 1200-1330, 1330-1500, 1500-1650, 1650-1800. These periods are chosen for convenience given the data available. They minimize the amount of interpolation required to construct the Russell-de Vries database.

We associate a dominant régime type with each region in each era. Table 2 summarizes the classification we adopt.<sup>8</sup> Table 2 also reveals the gradual growth of absolutism in Europe. At the

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<sup>8</sup>We carried out two separate classification exercises, one by us directly and a second by a research assistant relatively unfamiliar with European history, Mr. Hoang Quan Vu. His classification was based on McNeill (1963), Palmer and Colton (1984), and the *Encyclopedia Britannica*.

Only two disputes have arisen regarding our classification. The first concerns France: we date the

beginning of the sample, the Norman *regno* of southern Italy, the Norman-conquered kingdom of England, and the anarchy of medieval Germany count as under “absolutist” régimes. Nowhere else did kings or princes have even the beginnings of the administrative mechanisms, military power, and authority to establish centralized states; nor did they have the freedom from control by higher authorities or representative assemblies that German princelings had in the middle of the Investiture Struggle. By the middle of the sample absolutist princes had become more common. This was in large part due to the rise of the Habsburg dynasty, who at their peak controlled Spain, southern Italy, northern Italy, Austria-Bohemia, Belgium, and Holland. But the extension of absolutism was not solely a Habsburg creation. France, and Prussia in eastern Germany adopted similar systems of rule. Southern Italy had possessed a powerful and centralized monarchy since its Norman conquest. England and the Netherlands made revolutions, threw off proto-absolutisms, and under their constitutional and limited governments dominated the European economy in the century before the Industrial Revolution.

To check whether the division into regions and the dates demarcating periods were in any important way distorting our results, we analyze the Bairoch database using a different grid. Periods are individual centuries. Regions are further subdivided: Italy into three—northern, central, and southern—France into two—northern and southern—and Spain into three sub-regions—roughly Castile, Aragon, and Granada. These differences in definitions of eras and regions have no significant effect on the statistical results.

#### 4. Absolutist Princes and City Growth

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establishment of French absolutist monarchy to the era of Louis XIII and the centralization carried out by Cardinal Richelieu in the first half of the seventeenth century; our research assistant dates it from the twelfth-century defeat of the Anglo-French Angevins by Philip II “Augustus” and the ca. 1300 centralization and extension of royal power under Philip IV “the fair.” For an account supporting Mr. Vu’s point of view, see Strayer (1970). In support of our point of view, we would argue that Philip IV’s work did not last, but was undone by his Valois dynasty successors and by the collapse of royal authority during the 100 Years’ War. Which classification of France is adopted has no significant effect on our statistical estimates.

The second dispute concerns Germany, which we had originally removed from the “absolutist” category on the grounds that the German king—the Holy Roman Emperor—usually had little authority, and when German kings did have power they tried to project it across the Alps to control northern Italy and Papal Rome rather than centralizing and strengthening the royal administration in Germany. This judgment of ours has provoked criticism in several seminars: the absence of royal authority did not make property secure but instead gave subordinate territorial princes free rein to attempt to establish little despotic principalities. See Palmer and Colton (1984). Once again, however, which classification of Germany is adopted has no significant effect on our statistical estimates

### *Dependent Variables*

In this section, we examine the relationship between political regimes and city growth. The Russell-de Vries database consists of a panel with 9 regions over 5 time periods, or 45 observations in total. The Bairoch database consists of a larger panel: 14 regions over 8 time periods, or 112 observations.

For the Russell-de Vries database we use three different urbanization measures as dependent variables. The first is the growth over a period in the number of people living in cities of more than 30,000. This measure is equal to (a) population growth (or decline) in cities that begin and end the period with populations of 30,000 or more, plus (b) the end-of-period populations of cities that begin the period with less and end the period with more than 30,000, minus (c) the beginning-of-period populations of cities that fall below 30,000 inhabitants over the period. The second dependent variable is the growth in the number of cities with a population greater than 30,000. This measure is simply equal to the number of cities that cross the 30,000 population limit during any particular period. The third is the proportional growth in large city population during the period, where the base by which the change is divided in order to obtain proportional growth is the average of the beginning and end of period level.

These are not ideal measures. The cities included are selected *ex post*, not *ex ante*. Moreover, only the largest cities in any region are included: the dependent variable is a very imperfect measure as a result of this small-numbers problem. Nevertheless, these measures do reflect changes in market activity, urban commerce, and economic prosperity.

For the Bairoch database we use four different urbanization measures: the change in the number of cities larger than 30,000 and the growth of population living in cities of more than 30,000 as for the Russell-de Vries database; the change in the number of cities of population greater than 10,000 and the growth of population living in cities of more than 10,000.

The more complete coverage available from the Bairoch than from the Russell-de Vries database allows for use of the lower 10,000 population cutoff. This diminishes the potential small-numbers problem and makes indicators of urban population changes better indicators of changes in mercantile and urban prosperity. Of course there is considerably less information underlying the population estimates for the smaller cities. So the gain from using a larger sample and a lower city size cutoff may not be great.

An additional urbanization measure that we experimented with is the growth in population

living in cities of more than 30,000 that are not royal capital “parasite cities.” Growth of such royal capitals is arguably not so much a result of increasing commerce and industry as of an increasing ability to tax the countryside. According to standard interpretations of Italian history, Naples’ very large size in the seventeenth century was the result not of prosperous industry and commerce but of the extraction of large rents and taxes from the countryside. Madrid, Vienna, and Berlin are other preindustrial large cities that were more centers of redistribution and consumption than production. The inclusion of royal capitals in our city growth measure might confuse inference, for absolutist régimes hostile to commerce might be effective at exploiting the countryside and increasing the size of their capital cities. Use of this alternative dependent variable allows us to check for such a possibility.

The principal independent variable we focus on is an indicator: is a given region in a given period ruled by an absolutist prince, or not?

Regions have different populations, soil fertilities, access to transport, and resource endowments. These factors would lead to systematic differences in rates of urbanization even if political regimes were identical. In most specifications, we control for persistent regional differences by including regional dummies as independent variables. Different eras also saw different overall trends in population and economic growth. For example, the Bubonic Plague was continent-wide. It and subsequent plagues devastated Europe over 1330–1500. The “little ice age” of the seventeenth century adversely affected agricultural productivity throughout much of Europe. In all specifications we include period dummies to control for differences in the overall pace of economic growth in Europe.

#### *Basic Results: Russell-de Vries Database*

Tables 3 and 4 present basic results using the Russell-de Vries database. Coefficients reported are measured in units of people (or cities, or proportion of the population) per century. The first column of table 3 reports the dependent variable in the regression. The second column reports the estimated effect of the presence of an absolutist prince on city growth, and the standard error of this estimated effect. The third and fourth columns report summary statistics: what fraction of the total variation in city growth is accounted for by the independent variables, and what is the standard error of the regression line. The fifth and sixth columns report whether the particular

regression specification controls for era- and region-specific influences.

Table 3  
Regression Results for the Russell-de Vries Database

Dependent Variable	Prince Coefficient (thousands of people or number of cities lost per century of absolutism)	R <sup>2</sup>	SEE	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

According to the regression in line 1 of table 3, the presence of an absolutist prince reduces the growth of population in cities of more than 30,000 by nearly 180,000 people per century, with a standard error of 50,000 people per century.<sup>9</sup> According to the regression in line 3, the presence of an absolutist prince for a century reduces the number of cities of 30,000 or more inhabitants in the region by slightly over two, with a standard error of about five-sixths of a city per century.<sup>10</sup>

The results controlling for differences between regions are stronger than the results without such controls, which are reported in lines 2, 4, and 6 of table 3. The estimated damage done to urban population by an absolutist prince is only two-fifths as large, and the estimated damage done to the number of urban cities is only two-thirds as large when the regression does not control for

<sup>9</sup>These results imply that, under the maintained regression assumptions, there are 95 chances out of 100 that the “true” effect lies in the range from 80,000 to 280,000 urban inhabitants lost per century of absolutism.

<sup>10</sup>Under the maintained regression assumptions, there are 95 chances out of 100 that the “true” effect lies in the range from 0.4 to 3.9 cities of 30,000 or more inhabitants lost per century of absolutism.

regional differences.<sup>11</sup>

The less good performance of the regressions omitting controls for regional differences is not surprising. The different regions do not divide Europe into segments equally capable of supporting city growth. Some regions have good harbors, many navigable rivers, and abundant and rich agricultural land. We would expect to see such regions support the growth of relatively many cities. Other regions, like Belgium or Holland, are simply very small in area. We would not expect them to have as many cities as France or Italy. Different cultures, as well, may also have influenced city growth. The regions were in fact chosen by de Vries with an eye toward grouping together areas that shared common cultures and languages.

In an attempt to control for differences between regions without introducing a host of regional dummy variables, the fifth and sixth lines of table 3 report regressions using the proportional change in the population of cities in a region as the dependent variable. Even if a region has geographical factors that make it relatively hospitable—or inhospitable—to city growth, perhaps the presence or absence of an absolutist prince will have the same *proportional* effect on urban populations. Unfortunately, in early periods the stock of cities in many regions is so low that small random changes in their populations lead to enormous differences in proportional growth. The regressions using proportional change as the dependent variable hint at very large negative effects of princely rule—that a century of princely rule reduces urban populations by a third, for example. But the wide swings in the dependent variable leave the regression with little power, and the coefficient is very imprecisely estimated in lines 5 and 6 of table 3.

The regressions indicate that the presence or absence of absolutism may have been substantively very important for setting the pace and location of urban growth in Europe. Under one possible interpretation of our regression results, rule by absolutist princes in a region simply diverts commerce and urban life to other neighboring regions. In this case, the extent of absolutist régimes would have little effect on the pace of overall western European development. Under another possible interpretation, rule by absolutist princes does not displace merchants and artisans

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<sup>11</sup> Experimentation with a division into three régime types—constitutional and city-state merchant régimes as one type, absolutist princes as a second, and feudal anarchy as the third—uncovered some evidence that anarchy was worse than absolutism for city growth when the dependent variable was growth in urban populations but not when the dependent variable was growth in the number of cities. Regions suffering from anarchy lose 59,000 people per century from their largest cities, with a standard error of 39,000.

In addition, shifting to a three régime type division strengthened the contrast between absolutist princes and merchant-based or constitutional régimes. T-statistics increase by about one in the regressions corresponding to lines 1 and 3 of table 3.

to neighboring regions, but simply displaces them back to the countryside. In this case, the extent of absolutist régimes had an enormous effect on European urbanization.

The total population living in western European cities of 30,000 or more in 1650 was 4.7 million. Had each of the nine regions experienced an additional century and a half of absolutist rule before 1650, this urban population would have been reduced by two million according to the regression in line 1 of table 3. In such a scenario Europe in 1650 might well have played the same role in world history that it had played in 1000: a poor and barbarous backwater compared to the high civilizations of Islam, India, and China, rather than a continent on the verge of three centuries of world domination.

Conversely all of western Europe been free of absolutist rule over 1050–1650, then the regression in line 1 of table 3 predict that Europe in 1650 would have had a total urban population of nearly 8 million, and would have had 40 additional cities with more than 30,000 inhabitants. Such a heightened level of commerce and urban civilization might have triggered the industrial revolution considerably earlier.

No matter whether one believes that absolutist régimes displace or eliminate urban activity, the rise of absolutism in regions like Italy and Spain, and absolutism's failure to entrench itself in Holland and early modern England, were according to our regressions decisive factors in making Europe in 1800 a civilization focused on the English Channel and the Atlantic rather than on the Mediterranean. Without the rise of absolutism in southern Europe, the southern half of the continent might have continued to surpass the northern half in commerce and civilization throughout the pre-industrial era—as it had surpassed the northern half during the Roman Empire, and even during the high middle ages before the mid-fourteenth century Bubonic Plague.

### *Region and Era Effects*

Table 4 reports the region and era effects for the same regressions reported in lines one and two of table 3. Table 4 reports what the regression calculates the average values of city growth would be in each region and for each era if other variables in the regression were equal to their sample averages. The western Europe-wide patterns of city growth are clearly visible from the values of the era effects in table 4. City growth—both in the population in large cities and in number of cities—is on average negative during the crisis and plague period of 1330–1500.

Thereafter city growth rebounds, with the growth in the number of large cities recovering to its high medieval average and with the population in large cities expanding much more rapidly. And 1650–1800 sees the explosion in European commerce and urban life across the continent that set the stage for the industrial revolution.

Strong regional patterns in city growth can be discerned in table 4. The low region effect coefficients for Belgium and the Netherlands are as expected: although rich, the low countries are small. They could not support urban populations as large as those of regions like France. The high value of the regional dummy coefficient for England is largely a consequence of the extraordinary explosion in British city growth over the 1650–1800 period, at the very end of our sample. Our model simply does not explain why England industrialized first in the eighteenth century.

Table 4  
Region and Era Means for the Russell-de Vries Database, Controlling for Effect of Absolutist Prince

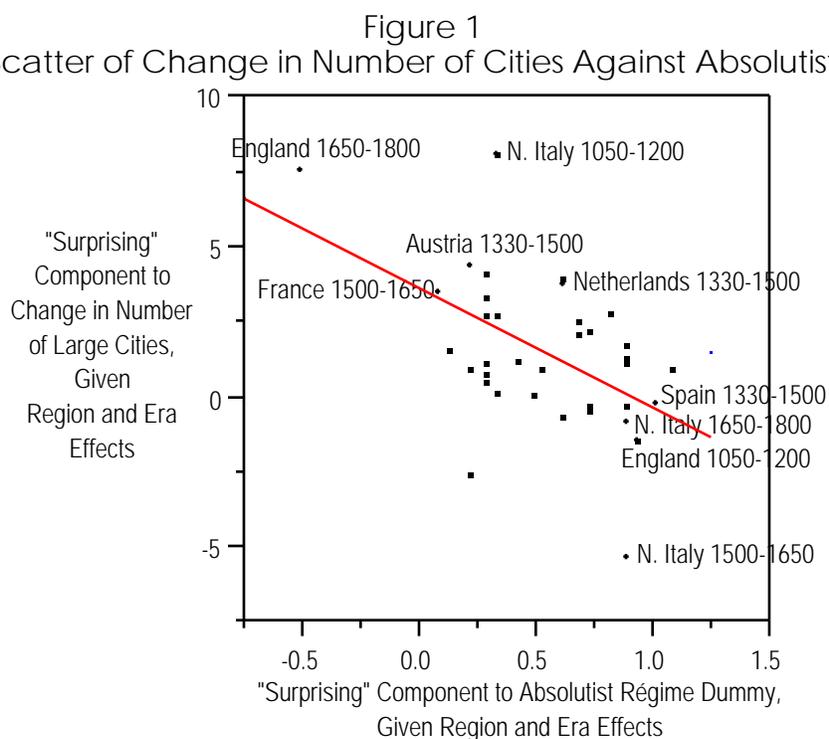
Dependent Variable:	Growth in Population (thousands per century)		Growth in Number (cities per century)		
	Mean Value	Standard Error	Mean Value	Standard Error	
Era:	1050–1200	-2.0	36.2	1.25	0.61
	1200–1330	11.7	36.2	1.25	0.61
	1330–1500	-56.1	35.1	-1.27	0.59
	1500–1650	209.1	36.8	1.38	0.62
	1650–1800	289.3	36.8	2.42	0.62
Region:	Austria	30.6	47.2	-0.22	0.80
	Belgium	20.4	47.2	0.72	0.80
	England	254.4	48.5	1.90	0.81
	France	129.0	49.4	0.72	0.83
	Germany	163.0	52.0	2.04	0.87
	N. Italy	85.9	47.2	2.45	0.80
	Netherlands	-46.5	53.0	-0.87	0.90
	S. Italy	160.6	52.0	1.63	0.87
	Spain	30.7	46.8	0.71	0.79

### *Basic Results: Influential Observations*

Figure 1 graphically displays the source of the correlations that produce the large negative estimated absolutist prince coefficient. The figure corresponds to the regression in the third line of table 3. It plots the partial scatter of the change in the number of large cities in a region on the vertical axis (controlling for nation and era effects) against the presence or absence of an absolutist prince (once again controlling for nation and era effects).

A large positive value along the horizontal axis for a region/era data point reveals that this particular data point sees an absolutist régime—and that, given the region and the era, an absolutist régime is surprising. Northern Italy from 1500-1650, for example, has a high value along the horizontal axis in figure 1 because it sees absolutism in a region and an era in which absolutism is relatively rare. Conversely, a large negative value along the horizontal axis reveals that the absence of absolutism in this particular case is surprising—England in 1650-1800, for example, is both a country strongly disposed toward absolutism and an era strongly disposed toward absolutism.

Figure 1 shows which particular data points have the most “leverage” in generating the strong negative absolutist prince coefficient. The point with the most leverage is England over 1650-1800. Other influential points in the high growth-no absolutism corner of the figure include France over 1500-1650 and northern Italy over 1050-1200. At the other end of the least-squares fit line are the influential observations with relative urban decline and absolutist régimes: northern Italy after the arrival of the Habsburgs and their dependents, England under the Norman kings, Spain during the later middle ages as its early absolutism gathers strength, and Belgium after the arrival of the Habsburgs.



Thus the influential observations in the database are those one would expect to be important

from the standard narratives of European history. In northern Italy, according to the Russell-de Vries database, city population growth during 1200-1330 exceeded by 208,000 people the predicted value from the regression of table 3. In the century and a half following the assertion of Habsburg authority over northern Italy, the population of large cities fell by 335,000 more over 1500–1650 than would be expected from the table 3 regression. Second comes the urban boom in England following the establishment of constitutional monarchy: the excess of English city growth in 1650-1800 over what would have been expected from the table 3 regression amounts to 325,000 people. Third comes the collapse of the cities of the Belgian region in the sixteenth century: a loss of 166,000 from the populations of large cities in excess of what the table 3 regression predicts following the institution of Spanish absolutism by the Habsburg dynasty’s viceroy, the Duke of Alva.

The most substantial influence on the regression coefficient is exerted by seventeenth and eighteenth-century England. The removal of England from the Russell-de Vries database cuts the estimated effect of an absolutist prince on city growth by almost 30 percent. Nevertheless, the effect remains statistically significant at standard confidence levels. England is the only country that significantly shifts the estimated coefficient when it is removed from the sample. The individual removal of other regions from the sample does not significantly shift the estimate of the effect of an absolutist prince on city growth. Nor does the removal of data from any individual era significantly affect the estimates.

Table 5  
City Population Growth under Absolutist and non-Absolutist Régimes

Region	Average Growth under a non- Absolutist Régime	Average Growth under an Absolutist Régime	Difference
Austria	-20	-110	90
Belgium	28	-222	270
England	695	41	654
France	124	226	-102
Spain	-72	-103	31
N. Italy	123	-134	257

An alternative way of looking at the evidence in the Russell-de Vries database is to examine the changes in city growth rates when a region shifts from one type of régime to another. Table 5

lists the regions that undergo a régime change, the average rate of population growth in cities of 30,000 or more in that region while it is governed by a non-absolutist régime (controlling for era effects), the average rate of population growth under an absolutist régime (once again controlling for era effects), and the difference. In five of the six cases, the populations of large cities grow faster (controlling for era effects) under non-absolutist régimes. In three cases—Northern Italy, Belgium, and England—the differences in rates of city growth are very large. And in only one case—that of France under Bourbon absolutism—does the shift to an absolutist régime fail to be followed by subsequent city growth at a slower pace relative to the average for European regions.

*Alternative Specifications: Finely-Graded Classifications*

Does our simple absolutist/non-absolutist classification of European régimes bias our results? Statistical theory would suggest not: use of a crude classification introduces additional sources of error into statistical relationships, but if a relationship nevertheless shows itself strongly it should be even more apparent using a finer classification.

Table 6  
Finely-Graded Classification of Western European Régimes, Russell-De Vries Database

Region	1050-1200	1200-1330	1330-1500	1500-1650	1650-1800
Southern Italy	8	7	7	8	8
Northern Italy	3	3	3	8	8
Austria	5	4	7	8	8
Germany	4	4	5	5	5
Netherlands	3	2	2	1	1
Belgium	4	2	2	8	8
England	7	7	6	8	1
France	5	4	4	4	8
Spain	5	2	6	8	8

Nevertheless, to see whether our use of a crude classification has led us astray, we reclassified régimes using an eight-point scale suggested to us by Robert Putnam. At one extreme

of the classification is the full constitutional monarchy or republic (1). In order, the other categories are weak-prince *standestaats* (2), independent city-republics (3), princes checked extra-constitutionally by powerful magnates (4), feudal anarchy (5), strong-prince proto-absolutism (6), non-bureaucratic absolutism (7), and at the other extreme full bureaucratic absolutism or rule by military conquerors (8). Table 6 presents this finely-graded classification.

Another possible more finely-graded classification scheme would use Charles Tilly's (1990) categories of the relative strength of "capital" as opposed to "coercion." In some regions (like pre-1500 northern Italy) the development of commerce and the accumulation of capital had advanced proportionately further than the mechanisms of large-scale organized coercion, and in these property was relatively more secure (a -1 on the scale). In other regions the development of coercion had outrun the development of capital (+1). In still others the development of the two forms of social organization were more equally matched (0). Table 7 presents a three-point scale based on Charles Tilly's categories.

Table 7  
Classification of Western European Régimes by Relative Development of  
"Coercion" as Opposed to "Capital," Russell-De Vries Database

Region	1050-1200	1200-1330	1330-1500	1500-1650	1650-1800
Southern Italy	1	1	1	1	1
Northern Italy	-1	-1	-1	1	1
Austria-	0	0	0	0	1
Germany	0	0	0	0	1
Netherlands	0	0	-1	-1	-1
Belgium	-1	-1	-1	1	1
England	1	1	1	0	-1
France	0	0	0	0	1
Spain	0	-1	0	1	1

Table 8 shows our two basic table 3 regressions for the Russell-de Vries database using these two alternative classification schemes. The "régime scale" coefficient estimates the effect on city growth of a shift by one classification, either on the eight-point Putnam scale—for example, from

non-bureaucratic to bureaucratic absolutism, or from a full constitutional monarchy to a weak-prince *standestaat*—or on the three-point Tilly scale. Table 8 shows that the relationship between city growth and the absence of absolutism is at least as strong using the more finely-graded classification.

Table 8  
Regression Results for the Russell-de Vries Database Using Alternative Classification Schemes: Effect of a One-Point Shift in the Classification Scale

Dependent Variable	Coefficient on Régime Scale (thousand people or number of cities lost per century)	R <sup>2</sup>	SEE	Region Controls?	Era Controls?
Growth in Population of Cities over 30,000 (Putnam)	-48.44 (13.71)	0.70	106	Yes	Yes
Growth in Number of Cities over 30,000 (Putnam)	-0.79 (0.22)	0.57	1.51	Yes	Yes
Growth in Population of Cities over 30,000 (Tilly)	-87.06 (26.96)	0.68	107	Yes	Yes
Growth in Number of Cities over 30,000 (Tilly)	-1.52 (0.43)	0.56	1.52	Yes	Yes

#### *Alternative Specifications: the Bairoch Database*

Table 9 presents basic results for our second database, drawn from the work of Bairoch and his collaborators, to check that our results are not due to peculiarities in the Russell-de Vries database. Once again the incidence of absolutist rule is significantly and negatively related to urban growth. Coefficients estimated in table 9 are close to the coefficients estimated in table 3: a century of absolutist princely rule reduces populations in cities (of more than 30,000) by 139,000 according to table 9, and by 158,000 according to table 3.<sup>12</sup>

Table 9 also reports results for a broader sample extending downward to cover all cities of 10,000 or greater population as well. The results are stronger for the more inclusive sample when region dummies are included, but weaker when region-specific effects are not controlled. A

<sup>12</sup>The database underlying table 3 has 150 year periods; the database underlying table 9 has 100 year periods. However, all coefficients are reported in units of number of people or cities per century in order to make comparisons easy.

century of absolutist rule drives an additional 70,000 people out of cities between 10 and 30 thousand population, and reduces the number of cities with 10 thousand or more inhabitants by 5.24. The absolutist coefficient has a typical t-statistic of between 2.5 and 3 in table 3, and a typical t-statistic of between 3 and 4 in table 9 when controls for region-specific effects are included.<sup>13</sup>

Table 9  
Absolutist Princes and City Growth: Bairoch Database

Dependent Variable	Absolutist Prince Coefficient: Thousand People or Number of Cities per Century	R <sup>2</sup>	SEE	Controlling for...
Growth in Number of Cities of More than 10000 Population	-5.802 (2.157)	0.425	7.37	region, era effects
Growth in Population Living in Cities of More than 10000 Population	-225.70 (53.34)	0.434	182.29	region, era effects
Growth in Number of Cities of More than 30000 Population	-1.516 (0.535)	0.245	1.83	region, era effects
Growth in Number of Cities of More than 30000 Population	-0.423 (0.371)	0.133	1.83	era effects only
Growth in Population of Cities of More than 30000 Population	-149.06 (38.08)	0.322	130.11	region, era effects
Growth in Population of Cities of More than 30000 Population	-40.82 (28.08)	0.125	138.23	era effects only
Growth in Population of Cities of More than 30000—Excluding Royal Capitals	-88.70 (28.24)	0.227	96	region, era effects

The final row of table 9 omits potential “parasite cities”—royal capitals, like Naples or Madrid or Berlin, that might be seen as more centers of consumption than centers of production—from the measures of urban growth. We think that the growth of such major capitals reflects more the ability of the state headquartered there to extract surplus from the population than to any increase in commerce. But to our surprise, the negative association between absolutist rulers and urban growth is weaker when royal capitals are omitted. On inspection, the reason for this is clear:

<sup>13</sup>The pattern of region and era effects for the Bairoch database is very similar to the pattern for the Russell-de Vries database, and is not shown here.

London and Paris are royal capitals. Their astonishing growth plays a significant role in the population-based regressions. Although they were royal capitals, they were also centers of commerce and industry. Indeed, it may be the case that the British monarchy and government settled at Westminster rather than Winchester in order to be near flourishing, mercantile London. And Paris had grown large before the writ of French kings ran far beyond the Ile de France.

## 5. Interpretations

### *Does City Growth Weaken Princes?*

The importance of individual region-era observations in influencing the estimated effect of an absolute prince helps dispel worries about the direction of causation. The association between absolutist princes and the retardation of city growth might arise not because strong princes are bad for city growth, but because prosperous cities are bad for absolutist princes. It might be thought that strong urban centers, with their extensive trade relationships and wealthy urban ruling classes, provide centers of resistance to absolutist rule in a way that the poorer and thinly-scattered rural populations of the countryside cannot. Braudel (1972) noted that absolutist monarchies in Spain and France emerged on the plateau of Castile and in the valley of the Seine, far from the centers of trade along the Mediterranean coast or at the mouths of the Meuse and the Rhine. He argued that only where the local populations were poor and weak could absolutism get its start. Tilly (1990) makes a similar argument that strong absolutist states had an easier time in poor regions.

Surely rich, urbanized regions are more capable of mounting successful revolts against kings and princes than thinly populated rural regions. No agricultural region defeated the German Emperor (as the cities of northern Italy did at Legnano) or the king of France (as the cities of Belgium did at Courtrai). But rich, urbanized regions provide greater prizes for kings and princes as well. Mountainous Switzerland easily maintained its independence after its successful revolt: few saw it as worth the trouble of conquering. However, the armies of Germany, Austria, Spain, and France clashed for generations over control the cities of northern Italy and the low countries. An urban region's superior ability to fight off a potential conqueror may not outweigh its greater value to a predatory absolutist prince.

The actual changes of régime type in our sample lend support to our view that the negative association between princes and cities exists because absolutist princes retard city growth. A major

reason for the régime type to change is military conquest from the outside. Whether outside invasion succeeds or fails is not determined by economics, but by politics, luck, and even theology: aided by the Popes the d'Hauteville family conquered and centralized southern Italy, and aided by the Popes northern Italian city-states defended themselves against Salian and Hohenstaufen dynasty attempts to conquer and centralize them. Southern Italy was the richer and more commercial half of the peninsula in 1050. But northern Italy was far richer by 1500.

Habsburg success in establishing absolutism in the southern Low Countries that were to become Belgium and failure in establishing absolutism in the northern Low Countries that were to become the Netherlands is perhaps the clearest example of the general principle that political and military fortune determines the governing régime, which in turn shapes economic growth. The Dutch Revolt of the sixteenth century preceded the explosion of economic growth in the Netherlands in the seventeenth century. Here the cause and effect is clear, for a substantial fraction of the population of Antwerp fled to Amsterdam over 1570–1620 to escape Spanish taxation and the Inquisition (Braudel, 1984).

The dependence of political régimes on political and military events—the successes or failures of dynastic marriages, and the victories and defeats of armies and rebellions—leads us to believe that the association of absolutism and retarded city growth did not arise because slow city growth leads to the growth of absolutism. In large part the prevailing political régime is determined by luck and politics: none of the transitions from one régime type to another reported in table 2 was substantially determined by the changing urban economy. The correlation between economic decline and absolutist princes shows more about the effect of absolutist princely rule on economic life than about the effect of economic prosperity on political order.

### *The New World*

The rise of absolutism in southern Europe—the centralization of Spain and the Habsburg conquest of Milan—roughly coincides with the European discovery of the Americas. The age of exploration that followed saw a shift in the center of gravity of the European economy to the Atlantic coast. It may be that much of what our statistical procedures attribute to the baneful influence of absolutism should, instead, be attributed to the shifting overseas resource base on which Europe could draw. The closing of the Indian Ocean to much Arab trade by the Portuguese

and the availability of gold, sugar, and eventually other staple commodities from America all served to make a Mediterranean location less, and an Atlantic location more advantageous.

This argument is probably true to some degree, but it cannot be the whole story. While a substantial proportion of the variation in city growth that our models attribute to the presence or absence of absolutism is associated with the general shift of Europe's commercial center of gravity to the Atlantic coast, a substantial proportion is not. Consider northern and southern Italy before 1500, the United Provinces and the Spanish (and then Austrian) Netherlands after 1570, and Britain and France after 1649. In these cases the more absolutist region saw relative decline. But in none of them can this decline be attributed to inferior access to resources from overseas.

Thus we do not believe that we have taken the shifts in European commerce that arose from the age of discovery and mistakenly attributed them to the rise of absolutism. In fact, our failure to take account of the age of discovery in our statistical models works against us: Spain shows only a small decline in the pace of city growth after the coming of Habsburg absolutism, and France shows a rise in the pace of city growth after the coming of Bourbon absolutism. In both cases, we are tempted to argue, access to New World resources and a favorable location on the Atlantic coast cushioned what would otherwise have been a steeper decline.

### *Security of Property: A Possible Interpretation*

Why are absolutist princes bad for economic growth? In this section we elaborate the "security of property" explanation offered by Montesquieu (1748), Smith (1776), North and Thomas (1973), North (1981), Brennan and Buchanan (1980), and Olson (1991). For example, North (1981) attributes economic growth in the west to the increasing security offered to property and enterprise. Such security is likely to be stronger in the absence of an absolutist prince. As North (1981) writes of seventeenth-century Spain and eighteenth-century France: "the benefits of improving the efficiency of markets...were sacrificed to the fiscal needs of the [absolutist] state." The legal framework and property rights were repeatedly shifted and altered to produce more short run revenue. North contrasts the experience of absolutist governments with that of seventeenth-century Holland and eighteenth-century England, where "control of property rights...passed to a representative assembly composed of merchants and landed gentry" who checked the power of the executive to tax away property.

A greater degree of security for property can be thought of as a lower “tax rate.” The difference between absolutist and non-absolutist governments then amounts to different tax rates on private property—where taxes are very broadly interpreted as all transfers from the private economy to the state. Suppose that  $t$  is the tax rate that the executive imposes on the private economy, and that  $X(t)$  is the total economic output of the private economy, with  $X'(t) < 0$ . Then an absolutist prince seeking to maximize revenue as a means to splendor and power will, as in Brennan and Buchanan (1990), maximize  $t\{X(t)\}$ . The equilibrium tax rate is thus the revenue maximizing “Laffer” 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. Merchants care not only about state revenue, but also about the general economic welfare of the region: their private income depends on economic prosperity. And an increase in state revenue will seem to them no bargain if it leaves their businesses and rents impoverished. 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 as a utility function  $U(X(t), tX(t))$ , where  $U$  is an increasing function of both private economic prosperity  $X(t)$  and state revenue. The tax rate that such a merchant government will choose is lower than the “Laffer” tax rate chosen by an absolutist prince.

Even an absolutist prince who cared about private economic prosperity would probably not care about it as much as merchants. Princes tended to like spending resources on aggression and conquest more so than did merchants. Princes spent between 70 and 90 percent of their revenues on war (Howard, 1976; Mann, 1987).<sup>14</sup> Princes’ preference for aggressive war would make them value state revenue relatively more than private prosperity. As a result, tax rates on private activity under absolutist princes appear likely to be higher than under merchant governments even if the prince places as great a value on private economic prosperity.

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<sup>14</sup> Absolutist princes sought conquest and expansion for its own sake, or for ideological reasons. For Philip II of Spain, the prosperity of the Catalonian or Belgian merchant towns weighed lightly against the necessity of building two fleets and two armies to reconquer northern Europe and the eastern Mediterranean for international Catholicism. For Louis XIV of France, it appeared easier to tax French commerce heavily and fund an army to conquer the merchants of Holland than to follow policies to nurture trade to make French merchants as wealthy as the Dutch.

Moreover, governments seeking resources with which to wage war were tempted to disproportionately tax urban commerce rather than agricultural land or production. Urban taxes took the form of money. They were easy to transfer and spend. Rural and land taxes were more likely to be paid in kind. A logistical and administrative system that could use such in-kind revenues to support an army was beyond the competence of pre-industrial states. A prince seeking conquest was thus likely to place a disproportionate burden on urban merchants and commerce, as opposed to rural peasants.

A sovereign whose ability to raise taxes is limited by the requirement that he obtain the consent of his Estates-General or his Parliament might simply be unable to impose “Laffer” tax rates (see Brennan and Buchanan, 1980). It is difficult to say whether a merchant oligarchy or a limited monarchy with a powerful Estates-General should have the lowest taxes on private economic activity. But it seems plausible that in either case the tax rate will be lower than the revenue-maximizing rate, and the rate adopted by an absolutist monarch.<sup>15</sup>

### *Short Princely Horizons*

One effect, however, might point in the direction of suggesting that lower tax rates would be found under absolutist princes. Absolutists might have a longer time horizon than merchants if their businesses have relatively short lives while princes’ realms are passed on to their children. As a result, absolutist princes who belong to stable dynasties might care about present and future economic prosperity because it increases the future tax base. If absolutists care more about the long run than do merchants or Estates, they would tend to impose lower tax rates and nurture economic growth (see Olson, 1991).

While attractive theoretically, this argument appears to be wrong empirically. It is a mistake to think that princes establish stable dynasties. In Europe the time horizons of princes are short.

Consider the monarchy of England, the strongest in Europe for the five hundred years 1000–1500 and still strong up until the Glorious Revolution of 1688. Table 10 lists kings, queens, and the dictator (Oliver Cromwell) of England. A check marks each monarch who was followed by a

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<sup>15</sup>Indeed, one of the major reasons that princes turned to absolutism was their desire to free themselves from these intermediary bodies that sought to limit confiscatory taxation and imposed constraints on princely revenues. Absolutisms were introduced to increase the potential supply of tax revenue—and we do not find it surprising that such an increase comes at the expense of trade and commerce.

usurped or disputed succession, who—like Elizabeth I—executed her heir, or who—like Richard I “the lion-hearted”—found that his younger brother the regent John had bribed the Duke of Austria to keep him imprisoned. 18 out of 31 monarchs had something go seriously awry with the succession before or upon their death. Usually the threat came from within the extended family of the king: of the rulers only Oliver Cromwell and William “the bastard” himself came from outside the previous royal family.<sup>16</sup> There was only a 22 percent chance that the English throne would pass peacefully down to the legitimate grandson (or other heir of the second generation) of any monarch.

Instability in the succession keeps princes from taking a long view: how could they afford to worry about the state of the economy under their greatgrandsons when they first had to worry about whether their sons would rule, and whether they would even have grandsons? England was not exceptional. Most European thrones were insecure.<sup>17</sup> War demanded current rather than future revenue if a dynasty was to survive to worry about the economy under the ruler’s successors.

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<sup>16</sup>William, however, was the nephew of Edward “the confessor,” king before Harold Godwinson.

<sup>17</sup>The Habsburgs and the medieval Capetians are the only possible exceptions. Yet the medieval Capetians were nearly powerless. The Habsburgs lost Holland and Portugal to revolts, nearly lost Belgium, Bohemia, and Catalonia to revolts, and were always on the verge of losing Belgium and northern Italy to the French.

Table 10  
The English Succession, 1066–1702

Dynasty	Monarch	Disputed Succession?	Reason
Godwin	Harold	4	Harold overthrown by William the Bastard
Norman	William I "the bastard"		
	William II "the red"	4	William assassinated while hunting: an "accident"
Blois	Henry I	4	Heir Maud displaced by her cousin Stephen
	Stephen	4	Stephen displaced by Maud's son Henry II
Plantagenet	Henry II	4	Dies fleeing the armies of his son Richard
	Richard I "lion-hearted"	4	Brother John bribes Austrians to imprison Richard
	John "the landless"		
	Henry III		
Lancaster	Edward I		
	Edward II	4	Murdered by queen and her lover
	Edward III		
	Richard II	4	Overthrown by his cousin Henry IV
	Henry IV		
York	Henry V		
	Henry VI	4	Overthrown by his cousin Edward IV
	Edward IV	4	Throne usurped by his brother Richard III
Tudor	Richard III	4	Overthrown by Henry VII
	Henry VII		
Dudley	Henry VIII		
	Edward VI	4	Coup by Dudley faction on his death
	Lady Jane Grey	4	Ten-day reign, then "bloody" Mary gains power
Stuart	Mary ("bloody")		
	Elizabeth I	4	Executed her heir, Mary Queen of Scots
Republic	James I		
	Charles I	4	Executed by Parliament
Stuart	Oliver Cromwell	4	Republic ends when General Monck defects to Charles II
	Charles II		
Orange	James II	4	"Glorious Revolution": army defects to William III of Orange
	William III "of Orange"	4	William holds the throne even after Mary's death despite the & Mary

## 6. Conclusion

This paper has presented some statistical evidence showing that absolutist governments are associated with low economic growth, as measured by city growth, during 800 years prior to the industrial revolution. We have interpreted this evidence as suggesting that "tax policies," broadly interpreted, are less favorable under autocrats than under non-autocratic, often merchant-controlled, governments.

This result has implications both for the historical analysis of Europe and for the analysis of modern economic growth. European historians have often written to celebrate the firm establishment of princely authority: princes like Louis XIV “the sun-king” of France, Frederick II “the great” of Prussia, and Ferdinand and Isabella of Spain are heroes to many because of their successful construction of the absolutist states that provided the cores around which the nation-states of the nineteenth-century were to grow.

But from the perspective of the welfare of the people alive at the time, or of the long-term growth of the economy, princely success is economic failure. For the people of southern Italy, the creation of the d’Hauteville *regno* was no blessing; for the people of Belgium, their incorporation into the Habsburg Empire was no benefit; for the people of Iberia, the marriage of Ferdinand and Isabella was no cause for rejoicing. The rise of an absolutist government and the establishment of princely authority are, from a perspective that values the progress of opulence, processes to be mourned and not celebrated.

Several economists examining the comparative growth of nations in the post-World War II era have found a positive association between democracy and economic growth in recent years (Barro 1991, World Bank 1991). The non-absolutist governments in our sample are not, of course, “democratic.” But they are certainly more democratic than are autocracies headed by absolutist princes, or than many of the one-party states of the post-World War II period. The same pressures might be exerting influence in both cases. The post-World War II results on democracies might suggest, in particular, that security of property is higher and “taxation”—broadly defined to include fear of expropriation—lower in constitutional democracies, and that this is at least one partial cause of their more rapid growth.

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