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THE DYNAMIC CONSEQUENCES OF STATE-BUILDING: EVIDENCE FROM THE FRENCH REVOLUTION

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Abstract

How do radical reforms of the state shape economic development over time? In 1790, France's first Constituent Assembly overhauled the kingdom's organization to set up new administrative entities and local capitals. In a subset of departments, new capitals were chosen quasi-randomly as the Assembly abandoned its initial plan to rotate administrative functions across multiple cities. We study how exogenous changes in local administrative presence affect the state's coercive and productive capacity, as well as economic development in the ensuing decades. In the short run, proximity to the state increases taxation, conscription, and investments in law enforcement capacity. In the long run, the new local capitals and their periphery obtain more public goods and experience faster economic development. One hundred years after the reform, capitals are 40% more populated than comparable cities in 1790. Our results shed new light on the intertemporal and redistributive impacts of state-building in the context of one of the most ambitious administrative reforms ever implemented.

JEL Classification: D70, H41, H71, O18, O43

Keywords: State capacity, Economic development, State-building, Administrative reform

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The Dynamic Consequences of State-Building: Evidence from the French Revolution*

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November 2022

Abstract

How do radical reforms of the state shape economic development over time? In 1790, France's first Constituent Assembly overhauled the kingdom's organization to set up new administrative entities and local capitals. In a subset of new artificial departments, local capitals were chosen quasi-randomly from a set of rival candidate cities. Comparing the final capitals with other candidates that were not ultimately chosen, we study how exogenous changes in local administrative presence affect the state's coercive and productive capacity, as well as economic development in the ensuing decades. In the short run, administrative proximity increases taxation and investments in law enforcement. In the long run, the new capitals and their periphery obtain more public goods and experience faster economic development. One hundred years after the reform, capitals are 40% more populated than comparable cities in 1790. Our results shed new light on the intertemporal and redistributive impacts of state-building in the context of one of the most ambitious administrative reforms ever implemented.

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1 Introduction

State capacity is considered essential for economic development.[1] History, however, provides many examples of both failures and successes of state-building. Success seems to depend on how the different dimensions of state capacity evolve and expand over time. Historical examples highlight the importance of early investments in coercive capacity, characterized as the state's ability to enforce law and order and to extract resources from citizens (Besley and Persson, 2010). Ancient Greece, Rome, and imperial China all provide relevant examples. However, the dynamic evolution of these and other functions of the state, such as public goods provision, is not well understood in the literature on state capacity.

We exploit one of history's most ambitious state-building experiments, the administrative reform initiated by the French Revolution, to explore the dynamics of state-building and its consequences for economic development. In February 1790, France's first Constituent Assembly overhauled the administration of the kingdom to set up a radically different organization of the state. In response to widespread grievances about administrative complexity ahead of the Revolution, the Assembly established new centers concentrating local administrative functions. The main achievement of the 1790 reform was to divide the territory into homogeneous units, known as *départements*, in which citizens would never be more than a day of travel away from their nearest administrative center. After 1800, Napoléon solidified this reform and gave additional relevance to these new local capitals by appointing civil servants and by creating local state institutions which largely survived to the present day.

Our identification strategy exploits a unique feature of the 1790 reform. Facing pressure to design a reform in a few months, the Assembly silenced competing local demands in a number of new artificial departments by establishing a rotation (*alternat*) of state functions across multiple cities, or by allowing the capital to be chosen from a set of candidate cities through a local election. The Assembly eventually abolished rotations and ordered local administrations to remain where they were located in 1791; after continued uncertainty during the revolutionary period, France's administrative network remained nearly unchanged after 1800. We leverage this setting to study how exogenous variation in local administrative presence affects the state's coercive power, public goods provision, and economic development. We identify causal effects of state-building by comparing capitals with candidate cities that were not ultimately chosen, and we also compare municipalities in the periphery of both types of cities. In support of our strategy, we show that final capitals were indistinguishable from other candidate cities along a wide range of pre-reform demographic and administrative characteristics.

A second key novelty of our paper is to build comprehensive data at a fine level both in space, at the municipal level, and in time, with a particular focus on the early 19th century. Several data sources allow us to explore the dynamic effects of state-building on different dimensions of state capacity. We estimate short-term effects of the reform on the establishment of municipal cadasters, military conscription, and the construction of prisons and tribunals. We then explore how the reform affected local public goods, including schools, hospitals, and public infrastructure such as railways and telegraph connections. To measure impacts on economic activity, we digitized municipal-level data on the location of industrial

[1] In economics, Acemoglu et al. (2015); Becker et al. (2020); Cantoni et al. (2019); Dell et al. (2018); Dincecco and Katz (2014); Gennaioli and Voth (2015); and Johnson and Koyama (2017), among many others, provide recent empirical evidence.

establishments in 1839; we also obtained patent registration and local banking activity data spanning the 19th century. Finally, we study how the reform affected population growth and employment in the long run. Together, these data sources allow us to characterize, for the first time, the short- and long-term economic impacts of the landmark 1790 reform at the level of cities and villages.

Conceptually, state capacity captures the state's ability to implement policy and its "power to achieve intended outcomes" (Berwick and Christia, 2018; Lindvall and Teorell, 2017; Mann, 1984). This includes activities as diverse as tax collection, military recruitment, law enforcement, and public goods provision. Throughout the paper, we categorize these functions into three types. The first is *extractive capacity*, the state's ability to obtain fiscal or physical contributions from citizens. The second, which relates to Foucault (1975), is *enforcement capacity*—the ability to control the population through prisons and other law enforcement institutions. The third is *productive capacity*, the ability of the state to produce local and global public goods. Consistent with Besley and Persson (2010), we conceptualize extractive and enforcement capacity as inputs in the production of public goods, and we refer to the combination of these inputs as the *coercive capacity* of the state.[2]

In our empirical analysis, we first study the dynamic evolution of extractive capacity. We use state-of-the-art tools in the randomization inference literature (Young, 2022) to compare capitals and other candidates along a range of dimensions. Capitals and their periphery receive their first cadaster earlier, they pay more business tax per industrial establishment in the country's first industrial census conducted in 1839, and they send more conscripts to Napoleon's armies between 1802-1815. We also observe a rapid increase in enforcement capacity: capitals have more prisons and tribunals as early as 1815, and they have a larger police force by 1816. Overall, the gap in coercive capacity between the capital and other candidate cities grows very early in the 19th century. The impacts of the reform on productive capacity, however, materialize later in the period. Capitals initially do not experience differential investments in hospitals or secondary schools. The divergence in public goods provision occurs in the second half of the 19th century: capitals are connected to the national telegraph network earlier than comparable candidate cities, and they are more likely to have a train station by 1870. These gradual investments in local public goods might have ultimately contributed to subsequent urban growth and private sector activity.

The reform's impacts on economic development are moderate in the medium term and substantial in the long term. More banks operate in capital cities and more patents are registered by their residents and those in their periphery starting around 1870. Effects on population growth also become substantial by the turn of the 20th century. By 1914, capitals are approximately 40% more populated than other candidate cities in 1790, with civil servants and their families explaining about a third of this difference. This divergence continues throughout the 20th century: by 1999, department capitals are considerably more populated and attract more public and private employment per capita. This evidence is consistent with other papers in the literature studying the long-term consequences of investments in state capacity. One of our key contributions is to explore, conceptually and empirically, all the dynamics linking these two endpoints.

[2]We categorize investments in law enforcement (police, prisons, and courts) as investments in coercive capacity, which in turn facilitate the extraction of fiscal and physical resources from citizens. We acknowledge that these investments also deliver local public goods in the form of security and justice.

The growth benefits of state-building also extend to towns and villages located in the periphery of capitals, but these benefits are modest and only materialize over the long run. To estimate these results, we compare municipalities whose nearest candidate city becomes the capital with those whose nearest candidate city was not chosen. Similar to the capitals themselves, municipalities in their immediate periphery are much more likely to receive their cadaster by 1815. Economic spillovers from the new capitals mainly pertain to innovation—by the end of the 19th century, the residents of municipalities close to capitals register significantly more patents. Two hundred years after the reform, these municipalities are 9% to 20% more populated than the municipalities in the vicinity of other candidate cities.

We present a simple spatial equilibrium model that delivers predictions consistent with these empirical results and shows that the early build-up of coercive capacity may be key to explain the dynamics of public goods provision and productivity. In this model, a central government chooses the tax rate and revenue allocation (between local public goods, global public goods, and investments in coercive capacity) across two cities. Private sector productivity and wages increase in the level of local public goods. Initially, the capital receives an exogenous shock in coercive capacity, allowing it to raise more taxes and to fund global public goods. These taxes drive citizens away, unless the advantage in coercive capacity is so large that it also allows the capital to fund more local public goods. The gap in coercive capacity grows even larger in favor of the capital. In the long run, the capital raises much more tax revenues due to its higher fiscal capacity, and funds local public goods. Citizens are attracted by the higher productivity and supply of local public goods in the capital, which experiences population growth.

Our results provide insights on the recent successes and failures of state-building. History contains many examples of successful states that first built up coercive capacity before they could invest in productive capacity. In the early days of the Roman Republic, in Europe's medieval communes, or in early Ming dynasty China (Szonyi, 2017), mandatory military service was a key dimension of state power, and often a prerequisite for participation in public life. By contrast, fragile states in recent years have faced numerous challenges in establishing coercive capacity. Recent work on the origins of state capacity in low-income settings tends to focus on fiscal capacity (Bergeron et al., 2021; Weigel, 2020) in contexts where the state lacks the ability to enforce law and order (Sánchez de la Sierra, 2020). France's experience, analyzed through the lens of post-revolutionary state-building, illustrates that coercive and productive capacity must go hand in hand for strong states to emerge in the long run.

We relate to a large literature on state capacity. A first branch of this literature studies the long-term determinants (e.g., Besley and Persson, 2010; Tilly, 1990) and consequences (e.g., Acemoglu et al., 2015; Dincecco and Katz, 2014) of investments in state capacity, broadly defined. In related work, Bai and Jia (2021) show how changes in political hierarchy across Chinese cities affected population density and urbanization. Campante and Do (2014) study how the location of U.S. state capitals affects government accountability. To our knowledge, our paper is the first in this literature to document how investments in state capacity unfold after a radical administrative reform in the short, medium, and long run. We identify which dimensions of state capacity are most responsive to policy efforts to create a modern state. The unique historical experiment associated with the 1790 reform also allows us to build an original identification strategy exploiting the quasi-random allocation of administrative status.

Other papers in the literature emphasize specific dimensions of state capacity, including extractive, fiscal, enforcement, productive, or administrative capacity. Gennaioli and Voth (2015) show that fiscal capacity is triggered by conflict and responds to technological leaps in warfare. Cantoni et al. (2019) study the rise of fiscal capacity in the Holy Roman Empire and its consequences for the survival of local polities. Dittmar and Meisenzahl (2019) focus on the long-term productive benefits of legal innovations that spurred human capital investments in German cities during the 1500s. Johnson (2015) studies the relationship between fiscal capacity and nation-building in post-revolutionary France. We unbundle these different dimensions of state capacity and show that state capacity begets more state capacity—in particular, early investments in coercive capacity yield subsequent payoffs in terms of productive capacity and economic development.

A related literature discusses the impact of public employment on local private sector outcomes. Several studies look at the impact of public sector relocation programmes (Becker et al., 2021; Faggio et al., 2019; Faggio, 2019), such as those associated with the transfer of the German federal government. This literature provides mixed evidence on the extent of complementarities between public and private employment. Public sector expansions tend to have a positive effect on private sector employment, particularly in the non-tradable sector (Becker et al., 2021; Faggio et al., 2019; Faggio, 2019; Jofre-Monseny et al., 2020; Faggio and Overman, 2014; Guillouzouic et al., 2021) while Auricchio et al. (2019) finds that the effect does not hold for contractions. We depart in several ways from this literature. While these papers examine shocks in public employment in contexts where the state is already well established, we study instead the process of state creation before the advent of modern taxation and law enforcement systems and focus on the dynamic effects of public investments (both in labor and capital). Moreover, the large scale administrative reform we exploit not only transferred administrative functions across cities but also involved an effort to homogenize and centralize these local state functions.

Finally, we contribute to a growing literature studying the economic consequences of the Revolution and the Napoleonic period inside and outside of France (Acemoglu et al., 2011; Finley et al., 2021; Franck and Michalopoulos, 2017; Juhász, 2018; Postigliolaa and Rota, 2021; Squicciarini and Voigtländer, 2016). de Tocqueville (1856) famously argued that the Revolution did not fundamentally disrupt social and political dynamics inherited from the Ancien Régime, since centralizing trends had already been at work under the monarchy. A large literature across demography, geography, and history has studied the legacy of the creation of departments in 1790 (Brette, 1907; Ozouf-Marignier, 1992; Todd and Le Bras, 2012). Our paper is the first in this literature to provide empirical evidence on the consequences of revolutionary reforms at the municipal level. We show that the Revolution set in motion a long-term divergence that benefited newly chosen centers of administrative power, which attracted subsequent investments in state capacity.

The rest of the paper is organized as follows. Section 2 provides background on the administrative reform and the uncertainty surrounding the choice of new capitals. Section 3 discusses our conceptual framework. Section 4 describes our data and empirical strategy. Section 5 presents our results on coercive and productive capacity, while Section 6 looks at impacts on economic development and population growth. Section 7 concludes.

2 Historical Background

2.1 Ancien Régime Divisions

Before the Revolution, the French Kingdom was governed through many layers of jurisdictions inherited from Roman and medieval institutions. Various types of administrative entities with non-overlapping boundaries fulfilled state functions at the local level. A complete description of *Ancien Régime* administrative functions is beyond the scope of this paper, but here we provide a brief summary building on the seminal work of Nordman et al. (1995).

First, France was divided into 136 *évêchés* (bishoprics) which broadly mirrored the boundaries of ancient Roman provinces. Being the seat of a bishopric was a source of considerable prestige. These cities concentrated the local functions of the Catholic Church and remained relevant for other basic functions of the state, such as censuses (population was counted at the level of parishes). The royal administration was itself divided into entities known as *généralités* and *subdélégations*, competent for various functions including tax collection and military surveillance. Within the généralités, tax collection was organized around local centers known as *recettes des finances*. Fiscal rules differed across two types of jurisdictions known as *pays d'élection*, where the local representative of the Crown enjoyed broad powers, and *pays d'états*, where tax collection was governed by local rules and regulated by an assembly of the three estates. Judicial functions were mostly fulfilled at the level of *bailliages* (bailiwicks), known as *sénéchaussées* in southern France.[3] These entities were also used for electoral purposes: the quotas of local representatives at the Estates General of 1614 and 1789 were determined at the level of the bailiwicks.

Overall, France had approximately 800 local administrative centers before the Revolution. Because the attribution of functions across these centers was complex, and because the boundaries between these various entities were often contested, administrative complexity was a major issue in the *cahiers de doléances* (lists of grievances) drafted ahead of the Estates General of 1789. In practice, a single parish could depend on multiple jurisdictions for different services: *"the cases of citizens having to visit different towns to face trial and to pay taxes were innumerable"* (Nordman et al., 1995).

2.2 The Creation of Departments

In June 1789, delegates from the Third Estate gathered in Versailles declared themselves the National Assembly, and soon after swore an oath to not disband until a new constitution was drafted for the kingdom. This process led to the creation of a constitutional committee (*Comité de constitution*) composed of eight members. The committee played a key role in the design of the new administrative map of the French kingdom between September 1789 and February 1790.[4]

Through a series of decrees culminating in the Decree Relative to the Division of the Kingdom adopted on February 26th 1790, the committee undertook the task of drastically revamping the French

[3]The judicial hierarchy also included higher courts known as *présidial* as well as the *Parlements* which rendered justice in the name of the King with no possibility of appeal. There were 13 Parlements of unequal size by the end of the Ancien Régime. The largest of these, the Parlement of Paris, had jurisdiction over nearly half of the French territory.

[4]The committee is sometimes referred to as the Sieyès-Thouret committee after its two most influential members: Abbé Sieyès (1748-1836) and Jacques-Guillaume Thouret (1746-1794).

administrative map. The original idea of the reform was to break down old provinces and to unify local state functions within a new, pyramidal nomenclature. An early design advocated by Sieyès proposed a partition of the kingdom into a grid with 81 equal-sized cells (see Appendix Figure A.1, panel b). In order to ease citizen's access to administrative services, newly established local centers (*chefs-lieux*) would concentrate all the functions of the local state, including fiscal, judicial, administrative, and police functions.

However, breaking up the old administrative order proved a more difficult task than originally envisioned. The process of reallocating administrative functions across cities was fraught with controversies and lobbying attempts by local elites.[5] Ultimately, the committee settled for a compromise solution which consisted of creating 83 new administrative units of approximately equal size, known as departments (*départements*), some of which followed the boundaries of old provinces while others did not. This solution preserved two founding principles of the initial proposal, namely the centralization of administrative functions and easy access of all citizens to the local administration, whilst also appeasing local tensions around the reform. The new departments spanned approximately 18 by 18 leagues (approx. 6,400 km^2), a size intended to allow citizens to travel to the capital in no more than one day.

In practice, the committee pursued two conflicting goals: creating a new homogeneous map of the French territory while also frequently granting requests from local elites to preserve existing administrative centers. As a result, two types of departments emerged: on the one hand, departments reflecting historical boundaries, usually centered around an old city or province; and on the other hand, more artificial departments created by combining or dividing existing territories, so that the objective of equally-sized departments could be attained. Our analysis focuses on the latter departments, as described below.

2.3 Artificial Departments and the Uncertainty Around Capitals

In many of the artificial departments created in January and February 1790, by the very nature of the reform design, no single city stood out as the obvious candidate to become the new capital. In these instances, the committee received many competing demands from the mayors, delegates, or even citizens of rival cities.[6] We collected the full set of letters written to request a department capital.[7] These letters provide a unique perspective on the local rivalries that made it difficult to designate a capital in artificial departments.

Strikingly, the characteristics regularly invoked to claim the status of capital (including population, prior administrative functions, economic potential, and centrality) were not used in a consistent way and were often used to reach opposite conclusions. For example, the criterion of having many prior administrative functions was sometimes viewed positively (no investments would need to be made in cities where administrative buildings already existed) and sometimes presented as a problem, as some letters invoked the necessity to get rid of the old order. A letter in support of the city of Mézières (Ardennes) for instance stated that *"the most ill-treated places under the reign of despotism shall be the most favored under*

[5] In total, the committee examined more than 10,000 letters and met with 1,884 town emissaries (Nordman et al., 1995).

[6] Some were even written by representatives from other cities—the mayor of Paris wrote in support of Soissons against Laon in the Aisne department, presenting Soissons as the "granary of the capital."

[7] "Archives du comité de Division du territoire", Arch. nat., D IVbis, 1-18.

that of liberty."[8] Claims made about the economic potential of cities were equally ambiguous. In several instances, the poorer candidate city argued that not obtaining the capital status would precipitate its citizens in misery. This claim was emphatically made for the city of Laon (Aisne): *"the just hope of becoming the capital is, for the city of Laon, like a life raft. The city has no trade."*[9]

Overall, the letters written in support of the different candidate cities reveal how, in the artificial new departments created as part of the reform, the candidate cities combined advantages and disadvantages. This prompted the Assembly to invent new solutions to defuse local tensions:

> "Urban rivalries and multiple grievances were delicate to address (...). Resolving these conflicts embarrassed the Committee so much that, seizing upon a proposal by Rabaut Saint-Étienne, several legislative solutions were adopted to circumvent these challenges. On December 9, 1789, the rotation of local assemblies across several cities becomes legally possible; it is also envisioned that different types of public establishments can be based in distinct cities (...). These mechanisms make it possible to hasten the new division [of the kingdom] while silencing competing local claims."
>
> Nordman et al. (1995, Volume 5, p. 54) [authors' translation]

These solutions provide the basis for our identification of the causal impacts of the reform. Following Rabaut Saint-Étienne's proposed design, the February 1790 decree stipulated that in some departments, administrative functions would rotate across different cities. In a small number of other departments, these functions would be shared across the department's major cities, or the decision was simply adjourned and left to a local vote. A common pattern across these departments was that the members of the Assembly *"established no link between the existing urban network and the location of future capitals ... the settlement of capitals was conceived as a task to be undertaken after constituencies were drawn"* (Arnould, 1992). Among the 28 departments facing this situation, 17 were provided with an explicit list of candidate cities while 11 were not (see Appendix Table A.1).[10]

These institutional solutions, in particular the rotation system rapidly proved impractical and expensive. A new decree abolishing rotations was passed in September 1791, with the bill rapporteur stating:

> "What is more ridiculous and onerous than these wandering administrations, which require the movement of papers, staff, a proliferation of buildings to accommodate them! Your Constitution has established a direct surveillance over all the points of the Empire, every citizen finds near him an administration that directs him (...). As a result, the exodus of administrations has become not only useless, but also shocking; the time has come to put an end to this abuse."
>
> Preamble to the 11 September 1791 Decree [authors' translation]

[8] Translated from: *"Les endroits les plus maltraités sous le règne du despotisme, doivent être les plus favorisés sous celui de la liberté."*

[9] Translated from: *"La juste espérance de devenir chef lieu de département est, pour la ville de Laon, la planche dans le naufrage. Cette ville n'a aucun commerce."*

[10] The Decree of February 26th 1790 lists five additional departments in which a rotation was due to take place. We do not include these departments in our analysis since the historical record shows there was no uncertainty with respect to the allocation of the capital, as reflected in the original names of these departments (départements d'Anjou, de Lorraine, de Montpellier, de Nîmes).

Article 2 of this decree stipulated that capitals would "remain fixed in the locations in which they now reside." Precise information on the location of administrations in September 1791 is, to the best of our knowledge, unavailable, and we cannot therefore exclude that in some cases, the final choice corresponded to the first city in the rotation. Our identification strategy requires that the candidate cities were similar based on pre-reform characteristics, thus making the order of the rotation irrelevant. In Tables 2 and 3 (discussed in Section 4.4), we provide evidence that final capitals were statistically indistinguishable from other candidate cities along a wide range of baseline characteristics. Appendix B provides further background on the choice of candidates and capitals in each department in our sample.

2.4 Local Capitals After 1800

Some uncertainty around the location of new capitals remained throughout the revolutionary period. For example, in the departments of Tarn and Var, the capital was transferred at least twice between 1790 and 1800. In February 1800, Napoléon put an end to this uncertainty by establishing new local governments (called *préfectures*) in the newly created capitals and by appointing a new local representative of the central state, called prefect (*préfet*), in each capital. The map of French departments and their corresponding capitals has remained largely unchanged for the following two centuries.[11]

Moreover, Napoléon gave additional relevance to these new administrative units by appointing civil servants and by creating new institutions embodying the local state. These institutions are, for the most part, still in existence today. The prefects sitting in the new capitals were given extensive powers as the sole representative of the state in each department. Napoléon is reported to have said that *"the prefects, once they are one hundred leagues away from the capital, have more power than myself"* (Reymond, 1978) and later in his life compared the prefects to *"emperors with small feet"* (de Las Cases, 1824).

Napoléon also rebuilt the local fiscal capacity of the state by creating in each department a fiscal extraction office staffed with a director and tax collectors. In 1807 he launched the project of building municipal cadasters, a task that was only completed in 1850. The cadaster was designed to facilitate the taxation of land property.[12] Finally, Napoléon created France's modern education system, including high schools (*lycées*) created in May 1802.[13] To accommodate these new institutions and new categories of civil servants, a large number of new public buildings were built in capital cities. In our analysis, we use the number of public building projects of various types as a measure of the administrative presence of the state.

[11] The main exceptions to this are the creation of the Tarn-et-Garonne department in 1808, the annexation of Nice and Savoy in 1860, and the boundary changes resulting from the German annexation of Alsace-Lorraine between 1870-1918. In addition, the capital of the Charente-Inférieure department was moved from Saintes to La Rochelle in 1810 and the capital of Var was moved from Draguignan to Toulon in 1974. Our results are robust to dropping these two departments from the sample.

[12] The idea to create a national cadaster emerged in 1791 to help the government to levy a new "property tax distributed by proportional equality on all built and non-built properties" (Clergeot, 2007). From August 1791, communes were authorized to carry out land surveying operations to improve the "knowledge of the economic resources of each administrative unit." These operations were financed by the central government until 1821 and by departments and municipalities afterwards.

[13] Other institutions relevant at the national level, but less so for the local one, were also created at the time. These include, among others, the Central Bank in 1800 and the Civil Code in 1804.

3 Conceptual Framework

We now present a conceptual framework analyzing how an initial shock in coercive state capacity in otherwise comparable cities affects outcomes in the short and long run. This framework highlights the dynamic and spatial tradeoffs faced by a central government in the state-building process. The model is designed to study the evolution of state capacity, public and private goods production, and population.

3.1 Model

Setting. Consider two cities $\{c, r\}$, where c is the chosen capital city and r an initially comparable city. There are two periods $t \in \{1, 2\}$. In period t, city j is characterized by its level of local public goods $G_{j,t}$ available only in j, private goods $Q_{j,t}$, coercive capacity $C_{j,t}$, tax revenue $T_{j,t}$, population $N_{j,t}$, and wages $w_{j,t}$. Global public goods $\bar{G}_t$ are available in both cities. c and r are perfectly comparable at the beginning of period 1, except that c receives a positive shock in coercive capacity, as described below.

Public and private goods. Private goods are produced according to the linear production function $Q_{j,t} = A_{j,t}N_{j,t}$, where the productivity in city j and period t is given by $A_{j,t} = A(G_{j,t})^{\beta_1}$. This linear production function assumes that local public goods (schools, infrastructure, hospitals) increase the productivity of the city (as in Guillouzouic et al., 2021). The parameter β_1 captures the intensity of this effect. We assume that the private sector is competitive so that workers are paid their marginal product of labor: $w_{j,t} = A_{j,t}$.

Public goods are produced using tax revenues. We denote as $\mu_{j,t}$ the share of revenue allocated to local public goods and $\nu_{j,t}$ the share of revenue allocated to global public goods, where $\mu_{j,t}$ and $\nu_{j,t}$ will be choice variables. The rest of the tax revenue $(1 - \mu_{j,t} - \nu_{j,t})$ is spent on building coercive capacity.[14]

Coercive capacity and taxes. Raising taxes requires coercive capacity, which we conceptualize as a stock variable $C_{j,t}$ defined at the local level. An increase in coercive capacity allows the government to raise taxes more efficiently: the final tax revenue available to the state is given by $T_{j,t} = C_{j,t}\tilde{T}_{j,t}$, where $\tilde{T}_{j,t} = \tau_{j,t}N_{j,t}w_{j,t}$ are the resources extracted in j, $\tau_{j,t}$ standing for the individual tax rate. Thus, in the absence of coercive capacity ($C_{j,t} = 0$), tax revenue cannot be collected.

Building coercive capacity requires investments. We assume the following production function for coercive capacity: $C_{j,t} = C_{j,t-1}\,(B_{j,t-1})^{\sigma}$, i.e., coercive capacity increases proportionally to the budget amount allocated to it, where $B_{j,t} = (1 - \mu_{j,t} - \nu_{j,t})T_{j,t}$. Before the beginning of the first period, the capital city receives a shock C in coercive capacity, so that $C_{c,1} = C_{r,1} + C$.

Preferences. There are two types of actors in this environment: the central government and a mass of citizens N. There is no overall population growth. Citizen i in city j maximizes her utility given by:

$$U_j^t(i) = (Q_j^t)^{\gamma_1}(G_j^t)^{\beta_2}(\bar{G}^t)^{\beta_3}e^{\varepsilon_j^t(i)},$$

[14] Local public goods are produced using local tax revenues according to $G_{j,t} = \mu_{j,t}T_{j,t}$. Global public goods are produced combining resources from both cities, $\bar{G}_t = (R_{c,t})^{1/2}(R_{r,t})^{1/2}$, where $R_{j,t} = (\nu_{j,t}T_{j,t})^{\alpha_j}$. This captures the fact that collecting resources from each city requires coercion and is therefore costly. This is the second difference between the capital and the candidate city: we assume $\alpha_c > \alpha_r$.

under the budget constraint $(1-\tau_j^t)w_j^t = Q_j^t$ (the private good is the numeraire). ϵ_{ijt} is an individual taste shock drawn from a type I extreme value distribution. The citizens are fully mobile every period and choose the city that maximizes their log indirect utility. However, we introduce an element of limited rationality: citizens who move in period t decide to move based on current conditions, even though they will face different conditions (taxes, public goods, etc.) in the next period.[15] We denote V_j^t the component of log indirect utility independent of the taste shock.[16]

Finally we assume that the government maximizes the discounted sum of weighted log indirect utilities of citizens.[17] The discount factor is given by δ and the government sets weight ξ on the welfare of the capital. Thus, the government chooses tax rates and the allocation of tax revenues to maximize:

$$\xi V_{c,1} + (1-\xi)V_{r,1} + \delta\left(\xi V_{c,2} + (1-\xi)V_{r,2}\right).$$

Timing. In each period the timing is the following: (1) the government announces taxes as well as the allocation of tax revenue; (2) taxes are raised, coercive capacity is realized, and public and private goods are produced, and (3) citizens draw their individual taste shock and make their location choice.

3.2 Predictions

Proposition 1. *In equilibrium,*

1. *in Period 1,* ***(a)*** *taxes are strictly higher in the capital;* ***(b)*** *if the initial shock in coercive capacity for the capital is not too large, $C < \bar{C}$, the capital has fewer local public goods, the private sector is less productive and pays lower wages;* ***(c)*** *population migrates away from the capital.*

2. *In Period 2,* ***(a)*** *the gap in coercive capacity has grown ($lnC_{c,2} - lnC_{r,2} > lnC_{c,1} - lnC_{r,1}$),* ***(b)*** *taxes are higher in the capital and* ***(c)*** *if $\beta_3 \leq \bar{\beta}_3$, more local public goods are provided in the capial, the private sector is more productive and pays higher wages and population migrates to the capital.*

Coercive capacity is the key ingredient in the model. Proposition 1 shows that the initial shock in coercive capacity in favor of c is amplified in period 2. In period 1, the government chooses the size and the allocation of the budget in both cities. We show in the proof of Proposition 1 (see Online Appendix) that the budget share allocated to coercive capacity is the same in c and r. Intuitively, the decision of allocating funds to coercive capacity amounts to a question of budget allocation across periods and is the same in both cities. This decision depends on the government's discount factor δ and on how fast coercive capacity grows with investments σ, but not on the taste of citizens for public and private goods.

The budget allocation between coercive capacity and public goods is the same in both cities, but the size of the budget differs for two reasons. First, because it is easier for the government to recover taxes in the capital, the government sets a higher tax rate in c. Second, the disposable budget is higher in c

[15] This does not change the results but simplifies the resolution since the central government in setting taxes does not need to take into account the effect it might have on population in the current period.
[16] The log indirect utility can be written $\gamma_1 ln(Q_j^t) + \beta_2 ln(G_j^t) + \beta_3 ln(\bar{G}^t) + \varepsilon_j^t(i) \equiv V_j^t + \varepsilon_j^t(i)$.
[17] We show in the Online Appendix that the model can accommodate a government seeking to extract rents.

since, for the same level of taxes, more resources are gathered due to the initial shock C. These choices imply that the gap in coercive capacity grows between the two cities between period 1 and 2.

These dynamics in the buildup of coercive capacity determine the shape of the equilibrium described in Proposition 1. Initially, the capital raises more taxes to build coercive capacity and to fund global public goods. This drives citizens away from the capital, unless the initial advantage in coercive capacity is so large that it allows the capital to also fund more local public goods. The gap in coercive capacity then grows larger than the initial shock. In period 2, the capital raises more tax revenue due to its increased coercive capacity. These resources fund local public goods as well as global public goods. In spite of higher taxes, population moves to the capital, attracted by local public goods and the higher productivity of firms and thus wages, provided not too much of the collected funds are allocated to global public goods (i.e., a condition on parameter β_3).

Overall, this framework shows how dynamics in the public and private sectors as well as population in the capital, relative to candidate cities, are driven by the dynamic build-up of coercive capacity. We use these predictions to guide our empirical explorations. We however highlight that we do not view the empirical results as a direct test of the model and we cannot exclude alternative channels for some empirical results. For instance, while our model predicts that productivity gains in the capital should materialize only in the medium term as a response to the provision of higher quality public goods, we cannot distinguish this in the data from a technological shock in period 2.

4 Empirical Framework

Section 3 predicts different dynamics for the capital and other candidate cities once the state-building process is set in motion. After receiving more coercive capacity initially, the capital eventually funds more public goods, attracts more productive firms, and hosts a larger population. However, this divergence only materializes in the long run. We now describe the empirical strategy we use to study these dynamic effects of the state-building project embodied in the 1790 reform.

4.1 Sample Construction

Our analysis focuses on the artificial departments that were not deliberately constructed around a single city or province, and where the Assembly instructed that the capital should be chosen among multiple candidate cities, as described in Appendix Table A.1. Starting with the complete list of 83 departments, we first systematically identify, based on their original names, the 43 departments that were explicitly constructed around a single major city, a royal province, or the subset of a royal province that included the old provincial capital.[18] These departments are excluded from our analysis.

Among the remaining artificial departments, we then identify 28 departments for which the Assembly failed to explicitly designate a new capital and resorted to using rotations or local elections to

[18] Given the maze of administrative functions described above, defining France's provinces as of 1789 is not straightforward (see Brette, 1907). Following Masson (1984), we use the list of 39 provinces provided in the Royal Ordinance of 8 March 1776.

expedite the reform.[19] Among these, 17 departments were provided with an explicit list of candidate cities while 11 were not. Our main sample, later on referred to as baseline sample, includes the former 17 departments, and we consider as candidate cities all the 50 cities specified in the official decrees passed in January-February 1790. We then reconstruct the list of likely candidate cities for 8 additional departments using information contained in additional decrees passed after February 1790, petitions addressed to the Assembly, votes held in local assemblies, and the historical record in Masson (1984) and Margadant (1992), as described in Appendix Table A.2. We do not include the 3 remaining departments since there is no evidence of competition for the capital in these departments. We refer to the sample of 69 cities across 25 departments as our augmented sample. Table 1 provides the complete list of candidate cities across both samples, and Figure 1 shows the spatial distribution of the 17 and 25 departments in our baseline and augmented samples, respectively.

Within all the departments we consider, in order to estimate effects on the periphery of candidate cities, we collected data to cover the universe of municipalities. The list of municipalities comes from the 18th century topographic map of the French kingdom, known as the Cassini map (Pelletier, 1990, 2002). A research team from EHESS digitized and made publicly available complete data on Cassini villages mapped to contemporary French municipalities. This data includes detailed information on past and present municipality names, administrative identifiers, land area, altitude, latitude and longitude, mergers and splits, and demographic data since 1793 (Cassini & EHESS, 2021).[20] Using this data, we construct a balanced panel of municipalities covering 1800 to 1914. Most municipalities experience no boundary change during this period. For the remaining municipalities, we reconstruct municipal clusters combining towns and villages that either merged or separated from each other between 1800-1914.[21] The 25 departments of interest include 10,892 municipalities (out of 36,360 French municipalities), including 1,088 municipal clusters (10%) .

4.2 Data

We draw upon several data sources to explore the evolution of state capacity in the short and long run. The key novelty of our approach is to assemble data at the most granular administrative level, namely the municipality, along a large number of dimensions.

Old Administrative Functions and Police Force. Nordman et al. (1995, pp. 74–80) provide city-level information on the location of the four main administrative functions under the *Ancien Régime*: the *évêchés* (bishoprics), the *bailliages* (bailiwicks), the *recettes des finances* (tax centers), and the *subdélégations* (administrative centers). By 1789, there were approximately 130 bishoprics, 426 bailiwicks, 339 tax centers, and 686 administrative centers across the French territory. We rely on these variables for balance checks and we show that our results are robust to controlling for the pre-refom presence of administrative functions.

In addition, we separately collected data on the location of police units (known as *maréchaussée* and

[19] One additional department, Rhône-et-Loire, was dissolved as early as 1793 and is therefore excluded from our analysis.
[20] More information on the Cassini database is available at: http://cassini.ehess.fr/fr/html/5_donnees.htm.
[21] Clusters are named after the absorbing commune (in cases of mergers) or the parent commune (in cases of splits). When a new commune was carved out of two or more communes, the cluster is composed of the child and all the parent communes.

subsequently *gendarmerie*) and the location of secondary schools in 1789-1790. Originally established to oversee royal troops within the kingdom, the *maréchaussée* was abolished in the early stages of the Revolution and reinstated in 1791 under the name *Gendarmerie Nationale*. We rely on the *Atlas Historique de la Gendarmerie* to collect information on the location of every brigade in 1790. We further used the list provided in the *Almanach royal* and the *Almanach impérial* to gather information on the location of gendarmerie brigades in 1816.[22]

Coercive capacity. To measure investments in local coercive capacity, we collected data on the establishment of the cadaster (*cadastre napoléonien*), military conscription between 1802-1815, business taxes collected in 1839, and the construction of tribunal and prison buildings until 1840.

First, we used the inventories from departmental archives (series P and 3 P) to collect information on the year of the first cadaster established in each municipality. Overall, we retrieved cadastral data for 97% of municipalities in our sample. Since the date of the original cadaster is additionally missing for 5% of these municipalities, we do not observe the date of the first cadaster for 607 municipalities (8%) in our baseline sample. As discussed in Section 2.4, the establishment of municipal cadasters took place over a fifty-year period starting in 1807—by 1850, 99% of municipalities had their cadaster established.

To measure impacts on military enrollment, we rely on data from the collaborative online project Matricules Napoléoniens (2021). This project digitized enrollment records for conscripts who served in Napoleonic armies between 1802 and 1815. The data was collected on a regiment-by-regiment basis and included more than 950,000 soldiers as of 2021. We use information on departments and villages of birth, and we aggregate this data to the municipality level.

For prisons and tribunals, we rely on data from the *Conseil des Bâtiments Civils* (*Conbavil*) created in 1795. The council examined all construction, renovation, and maintenance projects of public buildings above a relatively low cost threshold.[23] We collect the number of approved projects, focusing in particular on prisons and tribunals, and aggregate this data at the municipality-year level. Finally, for the business tax collected from firms we rely on data from Chanut et al. (2000), as described below.

Public Goods. We combine various sources to measure the productive capacity of the state, namely its ability to deliver public goods in the aftermath of the administrative reform. First, we collected data on secondary schools at the municipal level in 1812 and 1836.[24] The data includes information on locally-funded schools (*collèges municipaux*) and centrally-funded schools (*lycées*). We provide additional background on these different types of establishments in Section 5. We additionally use the *Conbavil* data described above to capture investments in hospitals. Second, we digitized data from Bucquet (1874) on the location and the characteristics of local welfare offices (*bureaux de bienfaisance*) in 1871. The welfare

[22] For the *Atlas Historique*, see https://atlas-gendarmerie.fr/. For the *Almanach*, see Bib. nat. fr., Almanach royal pour l'année bissextile M DCCC XVI. Paris, Testu, pp. 546–56, https://gallica.bnf.fr/ark:/12148/bpt6k2039123; Almanach impérial pour M DCCC LVI. Paris, Guyot et Scribe, pp. 724–39, https://gallica.bnf.fr/ark:/12148/bpt6k203923t.

[23] The threshold for consideration by the council was 5,000 Francs after 1806 and 20,000 Francs after 1821. This threshold approximately corresponds to the cost of a small classroom.

[24] Arch. nat., F 17 6835, Enseignement secondaire, Statistique, 1837-1854.

offices were established by a 1796 law and provided relief and healthcare to the sick and the elderly. Services were funded through donations and organized by each city on a voluntary basis. Bucquet (1874)'s survey includes data for approximately 13,000 thousand offices across all of France (see also Haudebourg, 1998, pp. 145–188).

Third, we created a historical GIS for French communication and transportation networks around the mid-19th century. We geocoded the 1863 map of the telegraph network from de Vougy (1863), and use interdepartmental connections to measure access to the national telegraph network. We further digitized various historical maps to geocode all French railway stations in 1852 and 1870 (Andriveau-Goujon, 1852; Chaix, 1870), which we link with our dataset of French municipalities.

Financial and Industrial Development. Our data on private sector activity includes information on industrial activity in 1839-47, banks, and patents registered throughout the 19th century. First, we leverage information from the country's first industrial census conducted between 1839-47. This census provides establishment-level data for 14,238 plants across the territory. We use the microdata from Chanut et al. (2000) and additionally digitized information on the location of establishments at the municipality level, which is available for all plants except those spanning multiple cities.[25] Second, we derived information on bank locations from Hoffman et al. (2019).[26] For patents, we rely on data from the National Institute of Industrial Property (INPI) which contains information on the registration date and the municipality of residence of each patent applicant.[27] We compute the aggregate number of patents registered by municipality and by year throughout our study period.

Contemporary Outcomes. We use contemporary measures of public and private employment to evaluate the reform's economic impacts in the very long run. This information is collected from the *Déclarations Annuelles des Données Sociales* (DADS), a matched employer-employee data provided by the French statistics agency (INSEE). This data is built from mandatory social security contributions reported by firms based in France over the period 2006-2015. Public sector employment falls into three categories: national public servants (*Fonction Publique de l'État* or FPE), local civil servants (*Fonction Publique Territoriale* or FPE), and hospital workers (*Fonction Publique Hospitalière* or FPH). These three categories represent approximately 50%, 30%, and 20% of the public sector workforce, respectively.

4.3 Empirical Strategy

Our empirical strategy consists in comparing, in artificial departments created in January-February 1790, capitals after 1800 with other candidate cities. Under the assumption that the choice of the final capital among the candidate cities was exogenous to pre-existing city characteristics and trends, this strategy allows us to estimate the causal impact of administrative presence on the capitals themselves.

[25] A second industrial census was conducted in 1860-65. Chanut et al. (2000) provide the microdata for this survey. Unfortunately, we could not locate the corresponding information on the municipality of operation for each industrial establishment.
[26] See https://didomena.ehess.fr/concern/data_sets/zp38wd010?. The data contains information on the opening of local bank branches at the city level at regular times intervals.
[27] See https://www.inpi.fr/fr/open-data-brevets-19eme.

The setting is analogous to a stratified randomization design where the strata are departments and the units of randomization are candidate cities. Within each department, we assume that each candidate city had the same probability of becoming the capital, equal to $1/n_j$ where n_j is the number of candidate cities in department j. Our exploration thus begins with the simple treatment-control comparison:

$$y_{ij} = \alpha_0 + \alpha_1 C_{ij} + \delta_j + \varepsilon_{ij} \tag{1}$$

where i denotes a candidate city, C_{ij} denotes capital status from 1800 onwards, and δ_j are department fixed effects. We initially use only the candidate cities to estimate this comparison, using either our baseline sample of $N = 50$ cities in 17 departments or our augmented sample of $N = 69$ cities in 25 departments. We report estimates obtained from two different approaches. The first approach follows a design-based perspective: we aggregate treatment and counterfactual outcomes (measured across non-chosen candidate cities) within each department, and we perform a paired t-test with $K - 1$ degrees of freedom, where $K \in \{17, 25\}$ is the number of departments, treating the setting as a stratified randomization design. We then conduct randomization inference based on this t-statistic. Our baseline estimation uses the unweighed data at the city level; in the Appendix, we also show results obtained after reweighing the data with the inverse of the conditional probability of becoming the capital inside department j ($p_{i|j} = 1/n_j$), or the inverse probability that a city i falls within stratum j ($p_j = n_j/N$).

Second, we estimate (1) parametrically via OLS and we construct 95% permutation-based randomization confidence intervals around α_1, using the robust approach of Young (2022) with 10,000 permutations of the treatment. This approach allows us to additionally include controls, which we do in Appendix results. In our baseline estimation, the standard errors from equation (1) are heteroskedasticity robust; in the Appendix we show robustness to using standard errors clustered by department.

We use a similar approach to estimate the impact of proximity to the final capital among neighboring municipalities. In this case, the estimating equation is:

$$y_{ij} = \beta_0 + \beta_1 CloseToC_{ij} + \mathbf{X_{ij}\Omega'} + \delta_j + \varepsilon_{ij} \tag{2}$$

where $CloseToC_{ij}$ is a binary variable equal to 1 if a municipality's nearest candidate city is chosen as capital, and the sample contains all the municipalities located within a k-km radius around candidate cities, excluding the candidate cities themselves. We additionally include a set of pre-reform geographic, demographic, and administrative controls X_{ij}.[28] We use $k = 20$ km in our baseline estimation and show robustness to alternative values of k in the Appendix. Standard errors are clustered at the department level. Using this approach, we again report the 95% permutation-based randomization confidence intervals from Young (2022), obtained using 10,000 permutations of the treatment. In conducting these permutations, we define the treatment at the level of candidate city i, analogous to a clustered randomization where the clusters are blocks containing all municipalities in the periphery of city i.

[28] The geographic controls used in all our specifications include land area and land area squared, minimal and maximal altitude, latitude and longitude. In Table 7, we additionally control for log population in 1793 and 1800 and four dummy variables indicating the presence of each of the four main administrative functions under the Ancien Régime (bishoprics, bailiwicks, tax centers, and *subdélégations*), distance to the department centroid, pre-reform market access and wheat suitability.

Finally, we jointly estimate the impact of capital status and proximity to the capital using the following specification:

$$y_{ij} = \gamma_0 + \gamma_1 C_{ij} + \gamma_2 CloseToC_{ij} + \gamma_3 R_{ij} + \mathbf{X_{ij}\Omega'} + \delta_j + \varepsilon_{ij} \quad (3)$$

where C_{ij} and $CloseToC_{ij}$ are defined as before. R_{ij} is a dummy equal to 1 for all candidate cities and captures the endogeneity associated with potential capital status and its correlates in terms of administrative and market potential. Here, the sample includes all municipalities located within a 20-km radius of candidate cities as well as the candidates themselves. The parameters of interest that are causally identified (conditional on R_{ij}) in this equation are γ_1 and γ_2. In this approach, we report: (i) standard errors clustered by candidate city, which is the level at which the treatments C_{ij} and $CloseToC_{ij}$ are defined; (ii) standard errors clustered by department; in which case we also report the p-values from a wild bootstrap to account for the small number of departments (Cameron et al., 2008).

4.4 Identification checks

Section 2.2 discusses how, in a subset of artificially created departments, the Assembly faced difficult choices among rival candidate cities and ultimately failed to designate a single city as capital. In some of these departments, a rotation of administrative functions between candidate cities was established; in others, this choice was postponed and left to a local vote.[29] These design choices were made to hasten the adoption of the reform under substantial pressure from local representatives.

A comparison between the artificial departments in our sample and other departments, presented in Appendix Table A.3, supports this interpretation. The artificial departments in our baseline and augmented samples are slightly larger and less densely populated, and are similar in terms of the presence of *Ancien Régime* administrative functions. Two key differences however stand out. First, the largest city in artificial departments is, on average, four times smaller than the largest city in out-of-sample departments (three times larger if we exclude Paris). Second, the size ratio between the first and second largest city is approximately ten times larger in non-artificial departments (six times larger if we exclude Paris). This is consistent with the historical evidence, described in Appendix B, that no obvious single candidate city stood out in artificial departments, relative to others.

Our identification strategy is further validated by a series of balance checks. In Tables 2 and 3, we compare capitals and other candidate cities along a range of pre-reform characteristics in our baseline and augmented samples, respectively. These variables include: two baseline measures of market access via roads and navigable waterways defined as in Donaldson and Hornbeck (2016), and assuming either low or high trade frictions,[30] the related indicator of urban potential from Bosker et al. (2013), which is the

[29] A local election took place in 5 of our departments of interest, and all but one of these votes appear to have been contentious. In Drôme, the city of Valence (157 votes) defeated Montélimar (140) and Crest (68) in a three-way vote. In Manche, the vote was evenly split between Coutances and Saint-Lô. In Seine-et-Marne, Melun was chosen over Meaux in a 259-231 vote. In Aisne, Laon defeated Soissons in a landslide (411 to 37) after the Soissons delegates boycotted the election. In Indre, Châteauroux defeated Issoudun by a larger margin (262 to 47).

[30] Following Donaldson and Hornbeck (2016), we construct a network database of roads and waterways before the French Revolution and calculate lowest-cost routes between each municipalities in our sample and towns larger than 1,000 in-

sum of inverse distance-weighted municipal populations computed using the universe of municipalities in 1793,[31] log city population in 1793 and 1800 and population growth between 1793-1800, administrative functions under the Ancien Régime (dummy variables indicating the presence of a bishopric, bailiwick, tax center, and administrative center, the sum of these functions, as well as the size of the police force and the presence of a secondary school in 1789), and pre-reform measures of economic potential (including GAEZ wheat suitability and the potential caloric yield from Galor and Özak (2016)), the presence of salt taxation offices, and the height of adult conscripts born after 1700 (Komlos, 2006).

Columns 1 and 2 of Tables 2 and 3 report averages of these variables across the treatment group (capitals) and the control group (other candidates). Column 3 reports the t-statistic from a paired t-test with $N-1$ degrees of freedom, where N is equal to the number of departments in the sample (i.e., either 17 or 25). In column 4, we report the average of the within-department treatment-control differences, alongside the standard error of this difference, which is calculated using the variance of the treatment-control difference across departments. Column 5 reports the estimate of α_1 from equation (1) and column 6 reports the randomization inference p-value and the 95% randomization based confidence interval around this estimate, following Young (2022).

Overall, capital cities appear no different from other candidate cities before the reform. Only 1 out of 20 coefficients is significant (at the 5% level). Indeed, capital cities are slightly more likely to have a tax center, but less likely to have a bishopric or a bailiwick, and they also have lower wheat suitability. Table 6 reports additional balance checks pertaining to the periphery of capitals; columns 1 and 3 report estimates of β_1 from equation (2) and columns 2 and 4 reports randomization inference p-values and randomization confidence intervals in the baseline and the augmented samples, respectively.[32] Again, we find no evidence that final capitals differ from other candidates in any substantial way.

Nonetheless, Figure 1 shows that the final capitals are sometimes more centrally located within departments: on average, capitals are 16 (13) kilometers closer to their department centroid than other candidates in the baseline (augmented) sample. However, since the departments we study were not built around one specific city, the department centroid did not represent a meaningful object before the reform, and proximity to the centroid would not affected economic development in the absence of the reform. In our setting, the exogeneity of capital status follows from the fact that department boundaries were arbitrary for the departments we consider:

> "The members of the Constituent Assembly (...) established no link between the existing urban net-

habitants. We extract data on the road network in 1789 from Arnaud (2021). We derive information on navigable rivers and canals from Dupain-Triel (1781), which we complete with data on active trade ports in France from the Portic Project (https://anr.portic.fr/en). To assign the costs of transportation for each network, we rely on figures used by the Revolutionary government in 1790 (Daudin, 2007, p. 8). We further assume that moving goods outside the road network was twice as costly as moving goods on roads. Finally, we assume either low trade elasticity ($\theta = 3$ as in Donaldson and Hornbeck (2013)) or high trade elasticity (θ = 8.22 as in Donaldson and Hornbeck (2016)).

[31] We define urban potential for city i as the distance-weighted sum of the size of all other French municipalities: $UP_i = \Sigma_j^n [\frac{pop_j}{\max\{D_{ij},1\}}]$, where pop_j is the population of city j in 1793, and D_{ij} is the distance between city i and city j. Information on 1793 population is missing for 853 municipalities (2.3%). We substitute it with information on population in 1800.

[32] We do not include pre-reform administrative functions in those checks as a negligible number of municipalities outside candidate cities have any administrative function. There are no significant differences between the two groups of cities when we look at these functions.

> work and the location of future capitals. This indifference betrayed a hidden animosity towards cities (...). In general, the settlement of capitals was conceived as a task to be undertaken after constituencies were drawn (...). For two centuries, the same has been said about the demarcation of departments: its arbitrary and artificial character."
>
> (Arnould, 1992, p.402) [authors' translation]

Consistent with this, in Tables 2 and 3, we find no correlation between capital status and pre-reform urban potential or market access. Furthermore, the correlation between proximity to the department centroid and pre-reform market access is, as expected, negligible—this correlation is 0.09 when measured in levels and -0.01 when measured in logs. Nonetheless, we show that our main results are robust to controlling for both proximity to the centroid and pre-reform market access and urban potential. Including or excluding these controls leaves our results unchanged.

5 The Early Buildup of Coercive Capacity

5.1 Overview

State-building efforts such as the 1790 reform can trigger investments in coercive capacity, before delivering tangible economic benefits. The next two sections explore these effects in turn. In this section, we estimate the short- and medium-term impacts of the reform, focusing on measures of extractive and enforcement capacity (Section 5.2) as well as productive capacity via the provision of schools and hospitals (Section 5.3). In the following section, we explore the longer-run impacts of the reform on public goods provision, economic development, and population growth.

Figure 2 illustrates the dynamic effects of the state-building reform. In this figure, we plot the regression coefficients from a modified version of equation (1) estimated on a panel dataset at the municipality-year level including all the candidate cities in our baseline sample. Appendix Figure A.2 reports the corresponding figures for the augmented sample. As we show across these different panels, the state-building process begins with investments in coercive capacity (panels a and b) which translate in the medium run into investments in productive capacity (panel c). Eventually this permeates to the private sector (panels d and e) and population (panel f).

5.2 Effects on Extractive and Enforcement Capacity

Tables 4 and 5, Panels A and B examine the short- and medium-run effects of the reform on various empirical measures of the coercive and the productive capacity of the state. Tables 7 and 8–9 extend this analysis to the periphery of capitals and other candidate cities.

Taxation. The first outcome we consider is the timing of the establishment of municipal cadasters. Cadasters were rolled out across France between 1807–1850 to facilitate and harmonize land taxation (see Section 2.4). The first row of Tables 4 and 5 shows that capitals were approximately 38 percentage points more likely to have a cadaster by the end of the Napoleonic period in 1815. Panel (a) of Figure 2

shows this dynamic evolution of the cadaster in capital cities, relative to other candidates. By 1830, capitals remain substantially more likely to have a cadaster, but this differential effect vanishes by the middle of the 19th century, at which point nearly all municipalities have been covered by the cadastral effort. These effects extend to towns and villages in the periphery of capitals: nearby municipalities are also more likely to have their cadaster established by 1815 (Table 7 column 1 and Table 8 columns 1-3).

While intuitive and consistent with our conceptual framework, this early buildup of coercive capacity via the establishment of cadasters may not have occurred had the government pursued different objectives. Indeed, a government seeking to maximize rents under the constraint of avoiding civil unrest may have sought to build up fiscal capacity further away from the capital (as in Campante and Do, 2014). Instead, our results show that the modern French state first projected its fiscal powers in and around the new local capitals, before extending this tax collection capacity to the rest of the territory.

Nonetheless, in addition to facilitating land taxation, the cadaster could also have had positive effects via its impact on, e.g., efficient litigation or property rights enforcement. The effects we show below suggest that these potential benefits of the cadaster did not translate into faster demographic growth in the short run. Moreover, Appendix Table A.8, using data collected in the Historical Social Conflict Database (Chambru and Maneuvrier-Hervieu, 2022), compares the number of riots between 1800 and 1848 in the capital versus the candidate cities. We find no significant effect of capital status on conflicts, regardless of their nature (fiscal riots, riots against the state or other types of riots). This suggests that short term positive effects of the cadastre on efficient litigation and property rights are unlikely to have been large in magnitude, or at the very least did not translate into a decrease in the frequency of conflicts.

Consistent with the interpretation of the cadaster as a fiscal instrument, we examine in Panel B the effects of the reform on the amount of business tax (*montant des patentes*) collected from industrial establishments in the country's first industrial census, conducted between 1839-47. Our main outcome of interest is the tax collected per industrial establishment.[33] The state collects 0.99-1.51 more francs from each plant in capitals—a 25% effect size relatively to the control mean across other candidate capitals.

Conscription. Extractive capacity implies the ability to collect not only financial resources but also physical resources from citizens, in particular during conflicts. Throughout the Napoleonic wars, the recruitment of conscripts was placed under the direct responsibility of the department prefects. The conscription system was introduced in 1798 and maintained until the end of the First Empire in 1815.[34] Tables 4 and 5 show that this system led to higher conscription for capitals. The dependent variable in the second row of these tables is the (hyperbolic-sine-transformed) number of conscripts in each city. Overall, capitals enroll approximately 15% more men than other candidate cities—this effect is significant at 10% in the augmented sample (Table 5) but falls slightly short of statistical significance in the baseline sample (Table 4).

Law Enforcement Capacity. Finally, we examine the short-term effects of the reform on police presence and on constructions and renovations of prisons and tribunals. By the end of the Napoleonic period,

[33] We find similar results (not reported) when looking at the total amount of business tax collected.

[34] The draft was viewed with fear in rural communities. Forrest (2012, p. 50) points out that the "achievement of conscription targets would be one of the principal gauges of loyalty and efficiency in the Consulate and Empire, a yardstick by which mayors, sub-prefects and prefects would be judged by the Napoleonic state."

more police forces are stationed in capitals and more prisons and tribunals are built inside these cities, relative to other candidates. This occurs even though there was no specific law regarding the location of judicial courts.[35] This gap in enforcement capacity continues to grow until 1840—panel (b) of Figure 2 shows the time path of this divergence until 1840. These effects illustrate the importance given to law enforcement institutions in the early buildup of state capacity after the Revolution.

5.3 Short- and Medium-Run Effects on Public Goods and Economic Growth

By contrast with the results shown so far, Tables 4 and 5 (Panel A) show positive but weaker effects of state-building on other types of public goods in the short run. We look at the presence of a secondary school by 1812 and at the amount of constructions and renovations of hospitals by 1815. By the end of the Napoleonic period (1815), the effects on hospitals and schools often fall short of statistical significance and are small in magnitude relative to the corresponding coefficients for prisons and tribunals.

Yet, the early buildup of fiscal capacity may have eventually allowed capitals to fund more local public goods in the medium and long run. Panel B of Tables 4 and 5 presents the effects of the reform on two indicators of public goods provision measured before 1850: the availability of a secondary school in 1836, and hospital buildings by 1840. We focus on secondary education because primary schooling became nearly universally available during the first decades of the 19th century. On the contrary, secondary schooling lacked universal availability.[36] Secondary education included *collèges communaux* (municipal colleges) funded by municipalities on a voluntary basis, private institutions set up by individuals (*pensions*), and a few dozen *lycées* (high schools).[37] Tables 4 and 5 show that capitals become more likely to host a secondary school by 1836—this effect is on the margin of significance at the 10% level. Effects on hospitals by 1840 display a very similar pattern.

Consistent with these emerging but limited effects on public goods provision in the first half of the 19th century, the growth dividends of state-building in this time period are also modest. Capitals have a slightly larger number of industrial establishments in 1839, but they do not host more banks by 1850. The number of patents registered in capitals is no higher until about 1830 (Figure 2, panel e) but picks up from this point onwards and is significantly larger by 1850.[38] The next section discusses the reform's impacts on these outcomes over the longer run.

[35] For instance, the *cours d'assises* (criminal courts involving a jury trial) were often built in the department capital, but this was neither mandated by law nor systematically the case. In 13 departments, the court of appeal was located outside the capital city. Commercial courts were more numerous, more than 200, and usually located in industrial and commercial cities (Joanne, 1864, pp. CXLIX–CLII).

[36] By 1833, 27,619 municipalities ran a total of 45,119 primary schools across the country. The enrollment rate of the school-aged population was about 60 per cent for primary schools and 2 per cent for secondary schools. Between 1815 and 1848, the *lycées* were called *collèges royaux*. For an overview of the structure and the evolution of secondary education during the 19th century, see Grevet (2001) and Savoie (2013).

[37] Only *lycées* offered a full curriculum and prepared pupils for baccalauréat. The decree of 15 November 1811 recognized 36 *lycées* across the French territory (Grevet, 2001, pp. 59–81). Between 1830 and 1880, 45 *collèges* were transformed into *lycées*.

[38] Results in levels (not reported) show a slower uptick in the number of registered patents, which in this case only diverge from the 1860s onwards.

5.4 Robustness Checks and Alternative Specifications

The results in Tables 4 and 5 are robust to various robustness checks and alternative specifications. First, we adopt the same design-based perspective as in column 4 of Tables 4 and 5, but consider alternative ways of weighting the data to account for different treatment probabilities across and within departments. Column 1 of Appendix Tables A.4 and A.5 report the baseline estimate from Tables 4–5. Column 2 reports a weighted average of the within-department treatment-control differences, using as weights the inverse of the conditional treatment probability inside each department, $(p_{i|j})^{-1}$. Column 3 reports the randomization inference p-value corresponding to this t-statistic. In columns 4 and 5, we consider an alternative weighting scheme using as weights the inverse probability that city i belongs to stratum (department) j, denoted above as p_j. Overall, these approaches yield similar takeaways as our baseline estimation, and they also do not improve efficiency.

Appendix Tables A.6 and A.7 report robustness checks on columns 5 and 6 of Tables 4 and 5, respectively. First, we add controls to the baseline equation (1). These controls include geographic controls (land area and land area squared, minimal and maximal altitude, latitude and longitude), demographic controls (log population in 1793 and 1800), four dummy variables indicating the presence of prior administrative functions (bishoprics, bailiwicks, tax centers, and *subdélégations*), distance to the department centroid, pre-reform market access, and wheat suitability. Column 2 of Appendix Tables A.6 and A.7 report the corresponding estimates. Column 3 reports the coefficients and standard errors obtained after using the double selection lasso procedure of Belloni et al. (2014) to reduce the number of control variables in column 2, imposing that department dummies are always included.

Second, we use standard errors clustered by department instead of heteroskedasticity-robust standard errors in our baseline estimation. In this case, we also report in curly brackets the p-values from a wild bootstrap with 10,000 replications, following Cameron et al. (2008), to account for the small number of departments. Columns 4 and 5 report standard errors clustered by department obtained without and with the set of controls included in column 2, respectively. Finally, column 6 reports 95% randomization based confidence intervals around the estimates in column 5. Overall, these various approaches deliver the same takeaways as the set of baseline results in Tables 4 and 5.

Table 8 delivers similar takeaways as Tables 4, 5, and Table 7. We report results from the alternative specification defined in equation (3) estimated in the main sample (Appendix Table A.9 reports the corresponding results in the augmented sample). The effects on coercive capacity materialize in the short run, unlike those on productive capacity which unfold in the subsequent decades. Appendix Tables A.11 and A.12 report robustness checks on the periphery results in Table 7. In those tables, we use the same estimation strategy as in the baseline equation (2), but consider instead all the municipalities located within $k = 10$ km or $k = 30$ km of candidate cities (instead of $k = 20$ in Table 7).

6 The Gradual Dividends of State-Building

6.1 Overview

We now turn to our exploration of the effects of the reform over the long run. This section sheds light on the time horizon over which the capital and their periphery reap the economic dividends from state-building. We first discuss impacts on public goods and economic development (Section 6.2). We then discuss long-term impacts on population (Sections 6.3 and 6.4) and employment (Section 6.5).

6.2 Public Goods and Economic Outcomes in the Long Run

By 1850, state-building leads to slightly more public goods being provided inside the new capitals. Tables 4 and 5 (Panel C) show that this divergence fully materializes in the second half of the 19th century. First, we report effects of the reform on welfare services enumerated in 1871. We look at the number of welfare beneficiaries using data from Bucquet (1874)—this figure is approximately 50% larger in capitals.[39] Second, we explore the impact of capital status on communication and transportation infrastructure. Capitals are substantially more likely to have a national telegraph connection allowing them direct communication with Paris, and more likely to have constructed a train station by 1870. Approximately half of the candidate cities not chosen as capitals have a train station by this date, and this figure is 35 percentage points higher for capitals. Panel (c) of Figure 2 shows dynamic effects on the construction of train stations starting in 1840.

The buildup of productive capacity eventually delivers substantial benefits for the private sector. By 1900, the citizens residing in capital have registered more than twice the number of patents registered in other candidate cities. Table 7 shows that this effect extends to municipalities in the near periphery of capitals, relative to municipalities in the vicinity of other candidates. Capitals also outperform the latter cities in terms of financial development, as they host a significantly larger number of banks by 1900.[40] Panels (d) and (e) of Figure 2 display the time paths of these effects on banks and innovation: we look at the city-level number of banks in regular times intervals between 1810–1910 and at the number of patents registered by capital residents between 1800–1900, respectively. The divergence between capitals and other candidates fully materializes after 1850 along both these dimensions.

6.3 Population Growth

Although short-term gains may be limited, the gradual buildup of state capacity in the capital might eventually translate into urban growth. We thus study the evolution of population size, which—like innovation and financial development—we can track finely over time. We look at log population computed from decennial censuses.

[39] We do not divide this number by the city population to account for the possibility that welfare centers also serve citizens from nearby municipalities.

[40] By 1910, 8% of municipalities in our sample have a local bank branch, with the number of branches varying between 1 and 13 The data on local banking activity spans 1801 to 1910, but only two cities in our sample have a bank branch in 1801.

Figure 2, panel (f) reports dynamic estimates of the demographic impacts of the reform, and panel C of Tables 4 and 5 summarize effects in the long run. Consistent with what we observed with economic outcomes, the demographic divergence between capitals and other candidates materializes from the 1850s onwards. The magnitude of this effect becomes substantial by the end of the 19th century: on the eve of World War I, capitals are more than 40% more populated than their 1790 rivals. Only about a third of this difference is explained by the presence of civil servants and their families, as described in Section 6.4. As we discuss in Section 6.5, this divergence continues throughout the 20th century. Table 7 shows that these demographic dividends also exist, but are further delayed for the periphery of capital cities.

The long-term demographic divergence of capitals relative to other candidate cities is further illustrated in Figure 3 and in Figure 4, where we use a different empirical approach to compare capitals and candidate cities. In Figure 3, we plot the raw population data across candidate cities in six of our departments of interest. The figure illustrates that capitals do not outgrow their rivals in the short run, but overtake their rivals during the second half of the 19th century. Figure 4 corroborates these results using the synthetic controls approach from Abadie et al. (2010) and Abadie and L'Hour (2021). There, we use the list of candidate cities in our baseline sample and we construct a group of synthetic control cities using our baseline geographic controls (latitude and longitude, land area and area squared, minimal and maximal altitude) and log population in 1793 and 1800 as predictor variables.

These differential patterns of growth are broadly consistent with the process described in Section 3. Early investments in state capacity involve building up coercive power, including the ability to collect taxes, raise armies, and maintain law and order. Given these investments, the effects of state-building on economic and population growth are limited in the short run. However, this eventually allows the state to collect more resources to fund local public goods. In the longer run, the higher availability of such public goods in capitals (in addition to other channels, including potential productivity spillovers from the establishment of the cadaster), makes these cities more attractive for citizens and firms alike. This leads to a long-term divergence between the winners and the losers of the administrative reform.

6.4 Accounting for Civil Servants

How much of the population growth experienced by capitals is driven by civil servants and their families? In the short run, using counts of civil servants available from departmental archives, the demographic impact of civil servants appears to have been negligible. For example, the department of Cantal officially had 340 civil servants in 1817 (0.1% of the department population). Among these, 77 individuals resided in the capital Aurillac and 49 individuals resided in the other candidate city, Saint-Flour—civil servants thus represented 0.8% of the city population in both cities. However, department capitals eventually experienced a steady growth in the number and complexity of local state functions. We collect additional data and present a simple empirical exercise to quantify the share of the population growth that can be attributed to the growth in the number of civil servants, and importantly their families.

First, we derived information on the total population of civil servants and their families across all departments in our sample from the 1886 population census.[41] By this date, the population of capitals is

[41] Bib. nat. fr., Résultat du dénombrement de 1886. 1ère partie. Paris, Berger-Levrault, pp. 256–316, https://gallica.bnf.

40% to 46% higher than the population of candidate cities across the augmented and baseline samples, respectively. Second, we collected individual data on local civil servants from three departments (Cantal, Jura, and Tarn) to estimate the fraction of all civil servants that resided in the department's capital, candidate cities, and other municipalities in 1886. Across these departments, the average fraction of a department's civil servants located in the capital is 19%. The corresponding fraction for all other candidate cities is 10%. Civil servants located in the capital tend to be employed in the local administration (*administration préfectorale*), secondary education, judicial functions, and civil engineering. Civil servants residing outside the capital tend to work in primary instruction, security forces, railway maintenance, and postal offices.

We then subtract from the population of each city the estimated number of civil servants with their families. For the capital, this estimate corresponds to 19% of the total number of civil servants in the department, using the figure obtained above. For other candidate cities, this estimate is equal to 10% of the same total, divided by the number of candidate cities.[42] We allocate equally all remaining civil servants across all other municipalities. Finally, we estimate again equations (1) and (3), using as our dependent variable the estimated (log) city population excluding civil servants and their families.

After implementing this correction, the effect of capital status on 1886 population remains large and statistically significant. In Panel C of Tables 4 and 5, the effect size falls to approximately 27-35% after removing civil servants and their families. In column 6 of Table 9, the point estimate is also two-thirds of the size of the estimate obtained in column 5, where we look at 1886 population including civil servants. Overall, this exercise implies that civil servants contributed about a third to the higher population growth experienced by local administrative centers by the end of the 19th century.

6.5 Contemporary employment

While we emphasize the dynamic evolution of investments in state capacity over the subsequent century, it is also interesting to examine effects of the administrative reform in the very long term. In Panel D of Tables 4 and 5, we use as dependent variables the 1999 municipal population as well as contemporary measures of public and private sector employment observed between 2006–2015 (see Section 4.2).[43]

More than two centuries after the reform, capitals host substantially more public sector and private sector jobs than other candidate cities.[44] This increase in public sector employment is accompanied by an increase in private sector employment.

fr/ark:/12148/bc6p06xrtrb.

[42] This denominator is capped at 4, the largest number of candidate cities we observe in this exercise (in Jura).

[43] The estimate for 1999 captures both natural demographic growth and growth by absorption of neighboring municipalities after 1914.

[44] This effect is especially large for local public servants, i.e., for the part of the public sector directly funded at the local level (results not reported).

7 Conclusion

One of the first missions entrusted to the members of France's first Constituent Assembly was to revamp the organization of the kingdom and to design a new administrative nomenclature reflecting modern principles of efficient government. This process involved choosing between century-old local centers and reallocating administrative functions to some cities at the expense of others. Anticipating that this reform would have major impacts on subsequent growth, the local elites exerted tremendous pressure on the Assembly to ensure that their own cities would be chosen as the new local capitals. This lobbying effort was such that the Assembly, in artificial departments without a single dominant candidate, was unable to adjudicate between rival urban centers and invented a rotation design where administrative functions would alternate across different cities.

In this paper, we show that the revolutionaries' expectations about the impacts of the reform were correct: differential investments in state capacity profoundly shaped patterns of economic development in the ensuing decades. In the long run, the cities chosen as the new local capitals ended up outgrowing other cities, and these capitals also drove faster growth in their periphery. However, we also show that this long-term divergence only materialized in the medium and the long run. In the immediate aftermath of the reform, citizens residing inside or near the new capitals were more exposed to investments in the coercive capacity of the state, including its ability to extract fiscal and physical resources through taxation and military conscription. Given the turmoil associated with Napoleonic wars until 1815, France's new local capitals paid a price in exchange for becoming focal points of administrative presence.

Using a simple spatial equilibrium model, we show that investments in state capacity have dynamic as well as redistributive effects. Investments in the state's extractive and enforcement capacity must first be made before state-building begins to deliver economic dividends. These investments then shape the spatial distribution of income and population over the long run. In the French case, despite multiple episodes of political upheaval during the 19th century, local investments in state capacity paid off and eventually contributed to the rise of the modern state. Nonetheless, the large political economy literature on institutions also shows that the dynamic sequence we observe between the initial administrative reform, investments in state capacity, and economic development may not have unfolded in the same way in other settings, especially if the initial buildup in coercive capacity is so large that it prevents the emergence of a cohesive society and a productive economy. Many other mediating factors, including mechanisms of rent extraction and social conflict, can put sand in the wheels of state-building.

References

Abadie, Alberto, Alexis Diamond, and Jens Hainmueller, "Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program," *Journal of the American Statistical Association*, 2010, *105* (490), 493–505.

_ and Jeremy L'Hour, "A Penalized Synthetic Control Estimator for Disaggregated Data," *Working Paper*, 2021.

Acemoglu, Daron, Camilo García-Jimeno, and James A. Robinson, "State Capacity and Economic Development: A Network Approach," *American Economic Review*, 2015, *105* (8), 2364–2409.

_ , Davide Cantoni, Simon Johnson, and James Robinson, "The Consequences of Radical Reform: The French Revolution," *American Economic Review*, 2011, *101* (7), 3286–3307.

Andriveau-Goujon, J., *Carte générale des routes et des chemins de fer de la France*, Paris: J. Andriveau-Goujon, 1852.

Archives Départementales du Cantal, "Le Cantal sous la Révolution. Collection Jean Delmas," 2021.

Arnould, Maurice-A., "La naissance des départements. De la représentation, reflet du réel, au découpage réel de la France de 1789," *Revue belge de philologie et d'histoire*, 1992, *70* (2).

Auricchio, Marta, Emanuele Ciani, Alberto Dalmazzo, and Guido de Blasio, "Life after public employment retrenchment: evidence from Italian municipalities," *Journal of Economic Geography*, 2019, *0*, 1–50.

Bai, Ying and Ruixue Jia, "The Economic Consequences of Political Hierarchy: Evidence from Regime Changes in China, 1000-2000 C.E.," *The Review of Economics and Statistics*, August 2021, pp. 1–45.

Becker, Sascha O., Andreas Ferrara, Eric Melander, and Luigi Pascali, "Wars, Taxation and Representation: Evidence from Five Centuries of German History," CEPR Discussion Papers 15601, C.E.P.R. Discussion Papers 2020.

_ , Stephan Heblich, and Daniel M. Sturm, "The impact of public employment: Evidence from Bonn," *Journal of Urban Economics*, 2021, *122*, 103291.

Belloni, Alexandre, Victor Chernozhukov, and Christian Hansen, "Inference on Treatment Effects after Selection among High-Dimensional Controls†," *The Review of Economic Studies*, 11 2014, *81* (2), 608–650.

Bergeron, Augustin, Gabriel Tourek, and Jonathan Weigel, "The State Capacity Ceiling on Tax Rates: Evidence from Randomized Tax Abatements in the DRC," CEPR Discussion Papers 16116, C.E.P.R. Discussion Papers 2021.

Berwick, Elisa and Fotini Christia, "State Capacity Redux: Integrating Classical and Experimental Contributions to an Enduring Debate," *Annual Review of Political Science*, 2018, *21*, 71–91.

Besley, Timothy and Torsten Persson, "State Capacity, Conflict, and Development," *Econometrica*, 2010, *78* (1), 1–34.

Bosker, Maarten, Eltjo Buringh, and Jan Luiten van Zanden, "From Baghdad to London: Unraveling Urban Development in Europe, the Middle East, and North Africa, 800–1800," *The Review of Economics and Statistics*, 2013, *95* (4), 1418–1437.

Brette, Armand, *Les Limites et les Divisions Territoriales de la France en 1789* 1907.

Bucquet, Paul, *Enquête sur les bureaux de bienfaisance*, Paris: Imprimerie Nationale, 1874.

Cameron, A., Jonah Gelbach, and Douglas Miller, "Bootstrap-Based Improvements for Inference with

Clustered Errors," *The Review of Economics and Statistics*, 2008, *90* (3), 414–427.

Campante, Filipe R. and Quoc-Anh Do, "Isolated Capital Cities, Accountability, and Corruption: Evidence from US States," *American Economic Review*, August 2014, *104* (8), 2456–81.

Cantoni, Davide, Cathrin Mohr, and Matthias Weigand, "The Rise of Fiscal Capacity," Rationality and Competition Discussion Paper Series 172, CRC TRR 190 Rationality and Competition July 2019.

Cassini & EHESS, "Des villages de Cassini aux communes d'aujourd'hui," 2021.

Chaix, Edmond-Albans, *Carte générale des chemins de fer et des voies navigables de la France*, Paris: Chaix et Cie, 1870.

Chambru, Cédric and Paul Maneuvrier-Hervieu, "Introducing HiSCoD: A New Gateway for the Study of Historical Social Conflict," *Working paper series, Department of Economics 407, University of Zurich*, 2022.

Chanut, Jean-Marie, Jean Heffer, Jacques Mairesse, and Gilles Postel-Vinay, *L'Industrie Française au 19e siècle. Les enquêtes de la Statistique Générale de la France*, Paris: Éditions de l'École des Hautes Études en Sciences Sociales, 2000.

Clergeot, Pierre, *1807. Un cadastre pour l'Empire. Cent millions de parcelles en France*, Paris: Publi Topex, 2007.

Daudin, Guillaume, "Domestic Trade and Market Size in Late Eighteenth-Century France," Document de travail 35, OFCE December 2007.

Dell, Melissa, Nathan Lane, and Pablo Querubin, "The Historical State, Local Collective Action, and Economic Development in Vietnam," *Econometrica*, 2018, *86* (6), 2083–2121.

Dincecco, Mark and Gabriel Katz, "State Capacity and Long-Run Economic Performance," *The Economic Journal*, 2014, *126* (590), 189–218.

Dittmar, Jeremiah E and Ralf R Meisenzahl, "Public Goods Institutions, Human Capital, and Growth: Evidence from German History," *The Review of Economic Studies*, 2019, *87* (2), 959–996.

Donaldson, Dave and Richard Hornbeck, "Railroads and American Economic Growth: A "Market Access" Approach," Working Paper 19213, National Bureau of Economic Research July 2013.

_ and _, "Railroads and American Economic Growth: A "Market Access" Approach," *The Quarterly Journal of Economics*, February 2016, *131* (2), 799–858.

Dupain-Triel, Jean-Louis, *Carte Général Des Fleuves, des Rivières et des Principaux Ruisseaux de France avec les Canaux existants ou meme Projettés*, Paris, 1781.

Émilien Arnaud, "Atlas de la Révolution française : Les grandes voies de communication, 1789. [Dataset] NAKALA," 2021.

Faggio, G., T. Schluter, and P. vom Berge, "Interaction of Public and Private Employment: Evidence from a German Government Move," Working Papers 19/09, Department of Economics, City University London 2019.

Faggio, Giulia, "Relocation of public sector workers: evaluating a place-based policy," *Journal of Urban Economics*, 2019, (111), 53–75.

_ and Henry Overman, "The effect of public sector employment on local labour markets," *Journal of Urban Economics*, 2014, *79*, 91 – 107. Spatial Dimensions of Labor Markets.

Finley, Theresa, Raphael Franck, and Noel Johnson, "The Effects of Land Redistribution: Evidence from the French Revolution," *The Journal of Law and Economics*, 2021, *64* (2), 233–267.

Forrest, Alan, *Policing, Rural Revolt and Conscription in Napoleonic France*, Basingstoke: Palgrave Macmillan,

Foucault, Michel, *Surveiller et punir*, Paris: Gallimard, 1975.

Franck, Raphaël and Stelios Michalopoulos, "Emigration during the French Revolution: Consequences in the Short and Longue Durée," Working Paper 23936, National Bureau of Economic Research October 2017.

Galor, Oded and Omer Özak, "The Agricultural Origins of Time Preference," *American Economic Review*, October 2016, *106* (10), 3064–3103.

Gennaioli, Nicola and Hans-Joachim Voth, "State Capacity and Military Conflict," *The Review of Economic Studies*, 2015, *82* (4), 1409–1448.

Grevet, René, *L'avènement de l'école contemporaine en France (1789-1835)*, Villeneuve d'Ascq: Presses universitaires du Septentrion, 2001.

Guillouzouic, Arthur, Emeric Henry, and Joan Monras, "Local Public Goods and the Spatial Distribution of Economic Activity," CEPR Discussion Papers 16085, C.E.P.R. Discussion Papers 2021.

Haudebourg, Huy, *Mendiants et vagabonds en Bretagne au XIX^{e} siècle*, Rennes: Presses Universitaires de Rennes, 1998.

Hoffman, Philip T., Gilles Postel-Vinay, and Jean-Laurent Rosenthal, *Dark Matter Credit: The Development of Peer-to-Peer Lending and Banking in France*, Princeton, NJ: Princeton University Press, 2019.

Joanne, Adolphe, *Dictionnaire des communes de la France*, Paris: Libraire de L. Hachette, 1864.

Jofre-Monseny, Jordi, José Silva, and Javier Vázquez-Grenno, "Local labor market effects of public employment," *Regional Science and Urban Economics*, 2020, *82* (C).

Johnson, Noel, "Taxes, National Identity, and Nation Building: Evidence from France," MPRA Paper 63598, University Library of Munich, Germany April 2015.

_ **and Mark Koyama**, "States and economic growth: Capacity and constraints," *Explorations in Economic History*, 2017, *64*, 1–20.

Juhász, Réka, "Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade," *American Economic Review*, 2018, *108* (11), 3339–76.

Komlos, John, "Height of French Soldiers, 1716–1784 (ICPSR 4363)," 2006.

de Las Cases, Emmanuel, *Le Mémorial de Sainte-Hélène*, Paris: Ernest Bourdin, 1824.

Lindvall, Johannes and Jan Teorell, "State Capacity as Power: A Conceptual Framework," STANCE Working Paper Series 1, Lund University 2017.

Mann, Michael, "The autonomous power of the state: its origins, mechanisms and results," *European Journal of Sociology*, 1984, *25* (2), 185–213.

Margadant, Ted W., *Urban Rivalries in the French Revolution*, Princeton University Press, 1992.

Masson, Jean-Louis, *Provinces, départements, régions : l'organisation administrative de la France, d'hier à demain*, Paris: F. Lanore, 1984.

Matricules Napoléoniens, "Matricules Napoléoniens 1802-1815," 2021.

Nordman, Daniel, Alexandra Laclau, Marie-Vic Ozouf-Marignier, and Serge Bonin, *Atlas de la Révolution française - Tome V : Le territoire*, Paris: EHESS, 1995.

Ozouf-Marignier, Marie-Vic, *La formation des départements. La représentation du territoire français à la fin*

du 18e siècle, Editions de l'EHESS, 1992.

Pelletier, Monique, *La Carte de Cassini. L'extraordinaire aventure de la Carte de France*, Paris: Presses de l'École Nationale des Ponts et Chaussées, 1990.

_ , *Les cartes des Cassini : la science au service de l'État et des régions*, Paris: Éditions du CTHS, 2002.

Postigliolaa, Michele and Mauro Rota, "Institutions and Literacy Rates: The Legacy of Napoleonic Reforms in Italy," *European Review of Economic History*, 2021, *25* (4), 757–779.

Reymond, J.-E., "Variétés : Les chemins d'une carrière II," *La Revue Administrative*, Mars Avril 1978, *31* (182), 227–229.

Rothiot, Jean-Paul, "La Révolution et l'Empire, le tournant décisif pour Epinal," *Annales de l'Est - Société d'émulation des Vosges*, 2000.

Savoie, Philippe, *La construction de l'enseignement secondaire (1802-1914) : Aux origines d'un service public*, Lyon: ENS Éditions, 2013.

Squicciarini, Mara P and Nico Voigtländer, "Knowledge Elites and Modernization: Evidence from Revolutionary France," Working Paper 22779, National Bureau of Economic Research October 2016.

Szonyi, Michael, *The Art of Being Governed: Everyday Politics in Late Imperial China*, Princeton University Press, 2017.

Sánchez de la Sierra, Raúl, "On the Origins of the State: Stationary Bandits and Taxation in Eastern Congo," *Journal of Political Economy*, 2020, *128* (1), 32–74.

Tilly, Charles, *Coercion, Capital, and European States, AD 990–1992*, Cambridge, Mass.: B. Blackwell, 1990.

de Tocqueville, Alexis, *L'Ancien Régime et la Révolution*, Paris: Michel Lévy Frères, 1856.

Todd, Emmanuel and Hervé Le Bras, *L'Invention de la France: Atlas Anthropologique et Politique*, Paris: Gallimard, 2012.

de Vougy, Henry, *Carte du réseau télégraphique de l'empire français*, Paris: Imp. impériale, 1863.

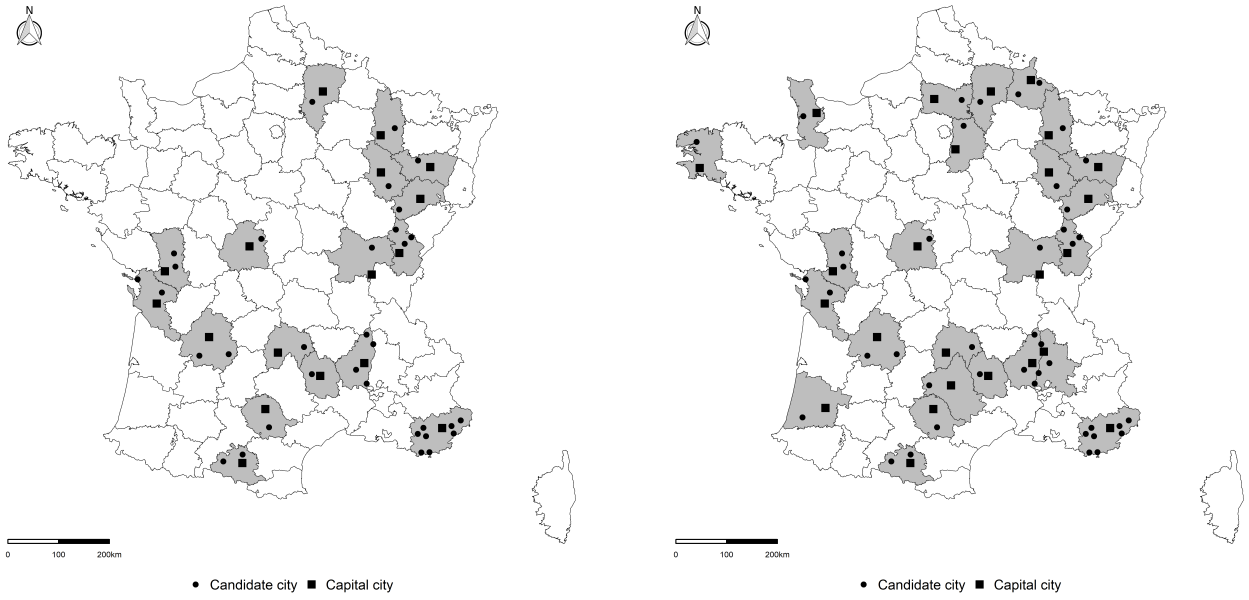
Weigel, Jonathan L, "The Participation Dividend of Taxation: How Citizens in Congo Engage More with the State When it Tries to Tax Them," *The Quarterly Journal of Economics*, 2020, *135* (4), 1849–1903.

Wiltshire, Justin C., "allsynth: Synthetic Control Bias-Correction Utilities for Stata," *Working Paper*, 2021.

Young, Alwyn, "Asymptotically Robust Permutation-based Randomization Confidence Intervals for Parametric OLS Regression," *Working Paper*, 2022.

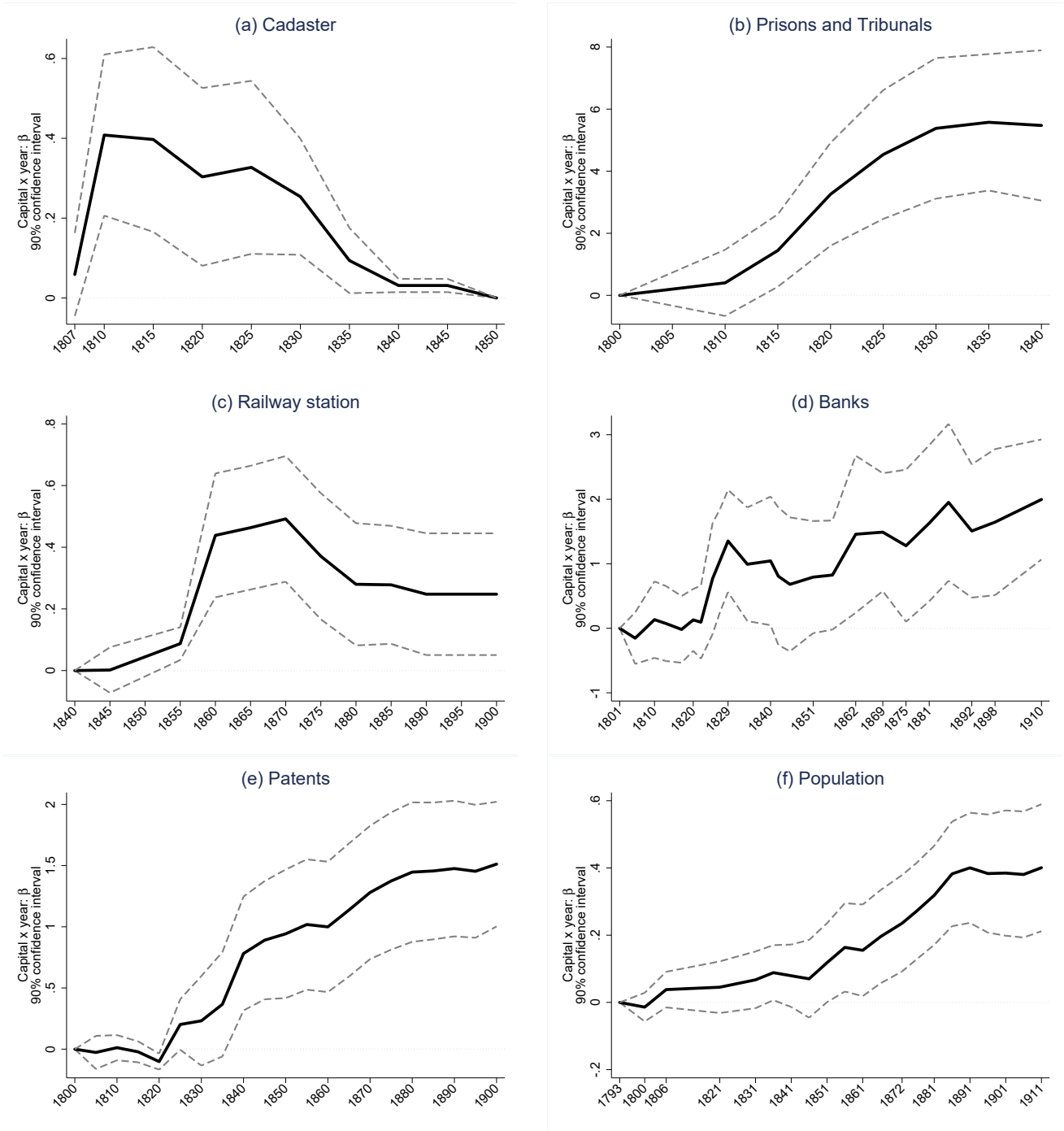
Figures

Figure 1: Artificial Departments with Multiple Candidate Capitals in 1790



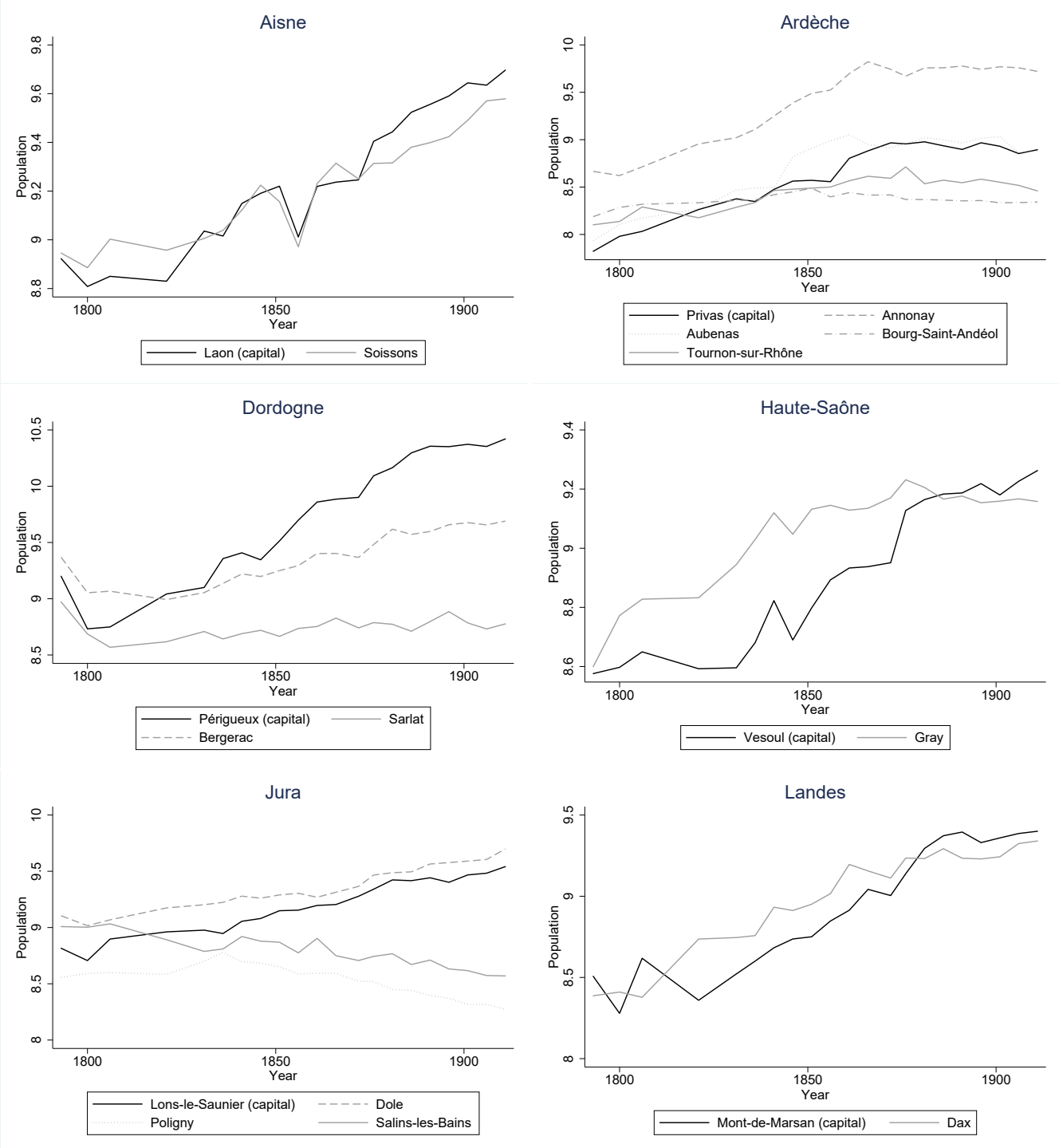
Notes: This map shows the departments in our baseline sample (17 departments, left-hand side) and augmented sample (25 departments, right-hand side), colored in gray. Black lines indicate the boundaries of French departments created in February 1790. Capital cities after 1800 are indicated with a square. Other candidate cities are indicated with a circle.

Figure 2: Dynamic Effects of Capital Status



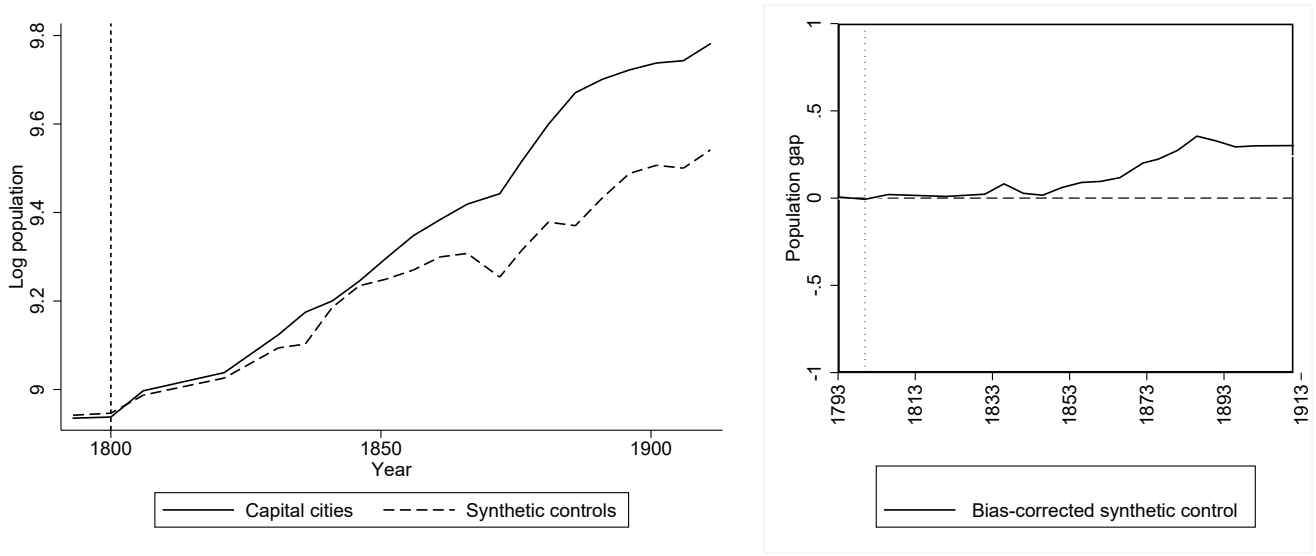
Notes: This figure shows the dynamic effects of the administrative reform over the 19th century. We plot the regression coefficients from a modified version of equation (1) estimated on a panel dataset at the municipality-year level, including municipality and year fixed effects. The sample only includes the 50 candidate cities in our baseline sample. The dependent variable is: in panel (a), a dummy variable equal to 1 if a municipality has established a cadaster by year t; in panel (b), the cumulative number of construction and renovation of prisons and tribunal buildings by year t; in panel (c) a dummy variable equal to 1 if the municipality has a railway station by year t; in panel (d), the number of banks operating in the municipality in year t; in panel (e), the (hyperbolic sine-transformed) number of patents registered by residents of the municipality in year t; in panel (f), log population measured in year t. The dashed lines indicate 90% confidence intervals, with standard errors two-way clustered by municipality and by department-year.

Figure 3: Demographic Divergence of Capital Cities



Notes: In this figure, we plot the raw population data (in logs) across capital cities and other candidate cities in six artificially created departments between 1793 and 1914: Aisne, Ardèche, Dordogne, Haute-Saône, Jura, and Landes.

Figure 4: Demographic Divergence of Capitals: Synthetic Controls



Notes: This figure displays the evolution of log population for capitals and synthetic control cities between 1793 and 1911 in our baseline sample (50 cities). We use log population in 1793 and 1800, geographic controls (land area and area squared, minimal and maximal altitude, and a second-degree polynomial in latitude and longitude) as well as pre-reform Ancien Régime administrative functions, log urban potential, log market access, and cereal suitability as predictor variables. The left-hand side figure uses the baseline approach from Abadie et al. (2010). The right-hand side figure plots the bias-corrected gap in log population between capitals and synthetic control cities, using the estimator from Abadie and L'Hour (2021) and Wiltshire (2021).

Tables

Table 1: Sample Departments & Candidate Cities

Department	Candidate Cities
Aisne	Laon*, Soissons
Ardèche	Annonay, Aubenas, Bourg-Saint-Andéol, Privas*, Tournon
Ariège	Foix*, Pamiers, Saint-Girons
Cantal	Aurillac*, Saint-Flour
Charente-Inférieure	Saint-Jean-d'Angély, La Rochelle, Saintes*
Deux-Sèvres	Niort*, Parthenay, Saint-Maixent
Dordogne	Bergerac, Périgueux*, Sarlat
Haute-Marne	Chaumont*, Langres
Haute-Saône	Gray, Vesoul*
Indre	Châteauroux*, Issoudun
Jura	Dole, Lons-le-Saunier*, Poligny, Salins-les-Bains
Lozère	Marvejols, Mende*
Meuse	Bar-le-Duc*, Saint-Mihiel
Saône-et-Loire	Chalon-sur-Saône, Macôn*
Tarn	Albi*, Castres
Var	All district capitals (9 cities)
Vosges	Épinal*, Mirecourt
Ardennes	Charleville, Mézières*, Rethel, Sedan
Aveyron	Rodez*, Villefranche-de-Rouergue
Drôme	Crest, Montélimar, Valence*
Finistère	Landerneau, Quimper*
Landes	Dax, Mont-de-Marsan*
Manche	Coutances, Saint-Lô*
Oise	Beauvais*, Compiègne
Seine-et-Marne	Meaux, Melun*

Notes: This table lists all the artificially created departments for which the capital status remained uncertain as of February 1790, along with the corresponding candidate cities. In our baseline analysis, we only consider the 17 departments for which the Constituent Assembly specified the list of candidate cities. The 8 additional departments in the bottom panel are those for which we reconstruct the list of candidate cities using information contained in additional decrees passed after February 1790, petitions addressed to the Assembly, and the historical record in Masson (1984) and Margadant (1992). Appendix Table A.2 provides additional details. Capitals chosen as of 1800 are flagged with an asterisk. Appendix B provides detailed historical background on the choice of candidate cities and capitals in each department.

Table 2: Balance Between Capitals and Other Candidates: Baseline Sample

	(1) **Capitals** [SD]	(2) **Candidates** [SD]	(3) **t-test** {RI p-value}	(4) **Difference** (SE)	(5) **OLS** (SE)	(6) **Randomization inference** [95% CI] & {RI p-value}
Demography						
Market access (low trade frictions)	10.46	10.47	t=-0.17	-0.016	-0.041	[-0.217,0.154]
	[0.55]	[0.66]	{0.867}	(0.094)	(0.098)	{0.825}
Market access (high trade frictions)	6.50	6.31	t=0.52	0.187	0.139	[-0.633,0.791]
	[1.55]	[1.74]	{0.608}	(0.359)	(0.374)	{0.837}
Log urban potential	11.66	11.65	t=0.38	0.004	0.004	[-0.021,0.194]
	[0.13]	[0.13]	{0.711}	(0.010)	(0.010)	{0.400}
Log population in 1793	8.85	8.75	t=0.86	0.101	0.095	[-0.132,0.505]
	[0.44]	[0.49]	{0.405}	(0.117)	(0.120)	{0.226}
Log population in 1800	8.86	8.77	t=0.80	0.087	0.088	[-0.131,0.489]
	[0.41]	[0.42]	{0.460}	(0.109)	(0.116)	{0.244}
Population growth, 1793-1800	0.01	0.02	t=-0.27	-0.013	-0.007	[-0.092,0.073]
	[0.17]	[0.16]	{0.789}	(0.050)	(0.041)	{0.727}
Largest city in department (0/1)	0.35	0.34	t=0.09	0.017	-0.006	[-0.307,0.438]
	[0.49]	[0.42]	{0.938}	(0.198)	(0.162)	{0.790}
Land area (km2)	33.40	37.70	t=-0.46	-4.295	-5.304	[-28.90,10.47]
	[19.04]	[31.03]	{0.653}	(9.310)	(8.331)	{0.327}
Administrative Functions						
Bishopric (*évêché*)	0.35	0.40	t=-0.43	-0.051	-0.049	[-0.264,0.274]
	[0.49]	[0.44]	{0.812}	(0.119)	(0.111)	{0.864}
Bailiwick (*bailliage*)	0.82	0.84	t=-0.13	-0.015	-0.009	[-0.253,0.394]
	[0.39]	[0.32]	{1.00}	(0.114)	(0.112)	{0.435}
Tax center (*recette*)	0.94	0.75	t=2.26	0.191	0.203	[0.000,0.469]
	[0.24]	[0.40]	{0.061}	(0.084)	(0.085)	{0.058}
Admin center (*subdélégation*)	0.94	0.90	t=0.54	0.037	0.021	[-0.157, 0.235]
	[0.24]	[0.26]	{0.750}	(0.068)	(0.067)	{0.480}
Old functions	3.06	2.90	t=0.57	0.162	0.166	[-0.346,1.146]
	[0.97]	[1.14]	{0.723}	(0.284)	(0.246)	{0.301}
Police force (*maréchaussée*)	3.76	4.06	t=-0.56	-0.294	-0.207	[-0.981,1.265]
	[0.97]	[1.95]	{0.655}	(0.527)	(0.513)	{0.629}
College (*collège*)	0.94	0.89	t=0.55	0.051	0.036	[-0.178,0.290]
	[0.24]	[0.27]	{0.751}	(0.093)	(0.108)	{0.589}
Economic Potential						
Wheat suitability (GAEZ)	6.12	6.44	t=-1.42	-0.318	-0.257	[-0.673, 0.661]
	[1.12]	[1.15]	{0.181}	(0.225)	(0.234)	{0.957}
Caloric yield	1.94	1.94	t=0.23	0.006	0.009	[-0.221,0.062]
	[0.30]	[0.32]	{0.833}	(0.029)	(0.029)	{0.569}
Salt office (*bureau des traites*)	0.29	0.21	t=0.70	0.081	0.046	[-0.194,0.287]
	[0.47]	[0.35]	{0.534}	(0.115)	(0.116)	{0.506}
Salt granary (*grenier à sel*)	0.18	0.23	t=-0.55	-0.051	-0.073	[-0.243,0.117]
	[0.39]	[0.40]	{0.751}	(0.093)	(0.084)	{0.322}
Height of conscripts	170.35	169.99	t=0.01	0.005	0.169	[-1.604,1.566]
	[1.94]	[1.33]	{0.990}	(0.448)	(0.719)	{0.842}

Notes: This table reports baseline characteristics for our baseline sample of 17 departments measured in capital cities (column 1) compared to other candidate cities (column 2). Standard deviations are reported in brackets. Columns 3 reports the t-statistic from a paired t-test of equality of means between capitals and other candidates, with $N-1$ degrees of freedom where $N=17$ is the number of departments. In curly brackets, we report the randomization inference (RI) p-value based on this t-stat obtained after 10,000 permutations of the treatment. Column 4 reports the average difference between capitals and other candidates. Column 5 report the coefficient from regressions of each variable on capital status, where each regression includes department fixed effects (equation 1). Heteroskedasticity-robust standard errors are reported in parentheses. The F-stat from the test of joint significance of all coefficients in column 5 is F=1.013 (p=0.496). Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in column 5, obtained after 10,000 permutations of the treatment. Across all columns, the sample includes 50 cities in 17 departments.

Table 3: Balance Between Capitals and Other Candidates: Augmented Sample

	(1) **Capitals** [SD]	(2) **Candidates** [SD]	(3) **t-test** {RI p-value}	(4) **Difference** (SE)	(5) **OLS** (SE)	(6) **Randomization inference** [95% CI] & {RI p-value}
Demography						
Market access (low trade frictions)	10.62	10.71	t=-1.08	-0.086	-0.090	[-0.229,0.190]
	[0.65]	[0.71]	{0.301}	(0.080)	(0.078)	{0.959}
Market access (high trade frictions)	6.88	6.95	t=-0.24	-0.070	-0.048	[-0.580,0.618]
	[1.57]	[1.73]	{0.815}	(0.287)	(0.295)	{0.909}
Log urban potential	11.66	11.64	t=1.23	0.012	0.012	[-0.007,0.151]
	[0.14]	[0.15]	{0.232}	(0.010)	(0.009)	{0.149}
Log population in 1793	8.85	8.76	t=0.83	0.085	0.077	[-0.107,0.413]
	[0.43]	[0.44]	{0.419}	(0.102)	(0.106)	{0.233}
Log population in 1800	8.84	8.78	t=0.66	0.066	0.063	[-0.120,0.385]
	[0.43]	[0.40]	{0.525}	(0.099)	(0.106)	{0.285}
Population growth, 1793-1800	-0.01	0.01	t=-0.52	-0.019	-0.014	[-0.084,0.045]
	[0.16]	[0.14]	{0.610}	(0.037)	(0.032)	{0.483}
Largest city in department (0/1)	0.32	0.28	t=0.25	0.038	0.024	[-0.213,0.340]
	[0.48]	[0.40]	{0.803}	(0.151)	(0.132)	{0.482}
Land area (km2)	36.43	36.59	t=-0.02	-0.159	-0.423	[-22.82,16.10]
	[31.09]	[30.45]	{0.987}	(9.227)	(8.486)	{0.635}
Administrative Functions						
Bishopric (*évêché*)	0.40	0.40	t=0.04	0.005	0.011	[-0.203,0.340]
	[0.50]	[0.46]	{1.00}	(0.135)	(0.117)	{0.657}
Bailiwick (*bailliage*)	0.84	0.76	t=0.78	0.077	0.068	[-0.115,0.399]
	[0.37]	[0.37]	{0.478}	(0.098)	(0.097)	{0.370}
Tax center (*recette*)	0.92	0.72	t=2.42	0.203	0.199	[0.067,0.437]
	[0.28]	[0.40]	{0.024}	(0.084)	(0.088)	{0.043}
Admin center (*subdélégation*)	0.96	0.88	t=1.29	0.078	0.066	[-0.090,0.227]
	[0.20]	[0.29]	{0.312}	(0.061)	(0.061)	{0.340}
Old functions	3.12	2.76	t=1.23	0.363	0.345	[-0.151,1.234]
	[0.97]	[1.26]	{0.241}	(0.296)	(0.259)	{0.113}
Police force (*maréchaussée*)	4.16	4.07	t=0.23	0.093	0.155	[-0.500,1.614]
	[1.40]	[1.86]	{0.849}	(0.405)	(0.405)	{0.298}
College (*collège*)	0.92	0.87	t=0.56	0.048	0.042	[-0.107,0.248]
	[0.28]	[0.30]	{0.657}	(0.086)	(0.091)	{0.405}
Economic Potential						
Wheat suitability (GAEZ)	6.23	6.35	t=-0.73	-0.124	-0.077	[-0.407,0.610]
	[1.08]	[1.07]	{0.478}	(0.170)	(0.182)	{0.691}
Caloric yield	1.91	1.89	t=0.09	0.002	0.004	[-0.174,0.048]
	[0.36]	[0.38]	{0.932}	(0.025)	(0.025)	{0.523}
Salt office (*bureau des traites*)	0.40	0.34	t=0.71	0.055	0.032	[-0.131,0.189]
	[0.50]	[0.44]	{0.528}	(0.078)	(0.081)	{0.648}
Salt granary (*grenier à sel*)	0.20	0.21	t=-0.23	-0.015	-0.028	[-0.169,0.109]
	[0.41]	[0.38]	{1.00}	(0.066)	(0.068)	{0.880}
Height of conscripts	170.65	169.61	t=1.16	0.843	0.890	[-0.979,2.219]
	[2.85]	[2.63]	{0.261}	(0.698)	(0.701)	{0.519}

Notes: This table reports baseline characteristics for our augmented sample of 25 departments measured in capital cities (column 1) compared to other candidate cities (column 2). Standard deviations are reported in brackets. Columns 3 reports the t-statistic from a paired t-test of equality of means between capitals and other candidates, with $N-1$ degrees of freedom where $N=25$ is the number of departments. In curly brackets, we report the randomization inference (RI) p-value based on this t-stat obtained after 10,000 permutations of the treatment. Column 4 reports the average difference between capitals and other candidates. Column 5 report the coefficient from regressions of each variable on capital status, where each regression includes department fixed effects (equation 1). Heteroskedasticity-robust standard errors are reported in parentheses. The F-stat from the test of joint significance of all coefficients in column 5 is F=1.235 (p=0.305). Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in column 5, obtained after 10,000 permutations of the treatment. Across all columns, the sample includes 69 cities in 25 departments.

Table 4: Effects of Capital Status: Baseline Sample

	(1) **Capitals** [SD]	(2) **Candidates** [SD]	(3) **t-test** {RI p-value}	(4) **Difference** (SE)	(5) **OLS** (SE)	(6) **Randomization inference** [95% CI] & {RI p-value}
A. Short term (before 1815)						
Cadaster by 1815	0.65	0.27	t=2.61	0.375	0.385	[0.116,0.672]
	[0.49]	[0.39]	{0.027}	(0.144)	(0.140)	{0.010}
Conscripts 1802-1815	5.81	5.65	t=1.47	0.162	0.184	[-0.026,0.539]
	[0.51]	[0.55]	{0.164}	(0.110)	(0.120)	{0.075}
Police force in 1816	3.18	0.91	t=7.69	2.262	2.329	[1.839,2.907]
	[0.81]	[0.51]	{0.000}	(0.294)	(0.315)	{0.000}
Prison project by 1815	0.59	0.41	t=1.30	0.179	0.184	[0.000,0.570]
	[0.51]	[0.47]	{0.220}	(0.138)	(0.130)	{0.066}
Tribunal project by 1815	0.71	0.38	t=2.68	0.324	0.305	[0.103,0.793]
	[0.47]	[0.45]	{0.032}	(0.121)	(0.118)	{0.023}
Secondary school, 1812	0.94	0.79	t=1.40	0.147	0.139	[0.000,0.481]
	[0.24]	[0.37]	{0.262}	(0.105)	(0.119)	{0.057}
Hospital project by 1815	0.35	0.30	t=0.29	0.051	0.022	[-0.234,0.482]
	[0.49]	[0.43]	{0.863}	(0.176)	(0.138)	{0.527}
B. Medium term (before 1850)						
Business tax per plant, 1839	5.23	3.73	t=2.30	1.506	1.337	[0.175,2.582]
	[1.45]	[2.42]	{0.037}	(0.654)	(0.581)	{0.035}
Secondary school, 1836	0.94	0.78	t=1.65	0.162	0.158	[0.000,0.520]
	[0.24]	[0.37]	{0.180}	(0.098)	(0.108)	{0.043}
Hospital project by 1840	0.65	0.39	t=1.82	0.260	0.201	[-0.085,0.677]
	[0.49]	[0.44]	{0.107}	(0.143)	(0.136)	{0.111}
Industrial establishments, 1839	2.70	1.96	t=2.11	0.738	0.781	[-0.065,1.447]
	[1.29]	[1.41]	{0.047}	(0.35)	(0.359)	{0.076}
Banks, 1851	2.82	2.67	t=0.31	0.152	0.308	[-0.418,1.900]
	[1.47]	[1.40]	{0.773}	(0.485)	(0.530)	{0.235}
Patents registered by 1850	2.67	1.87	t=2.12	0.805	0.845	[0.272,1.513]
	[0.88]	[1.44]	{0.052}	(0.380)	(0.327)	{0.009}
C. Long term (before 1914)						
Telegraph connexion, 1863	0.88	0.04	t=8.25	0.846	0.841	[0.636,1.00]
	[0.33]	[0.12]	{0.000}	(0.103)	(0.097)	{0.000}
Welfare beneficiaries, 1871	7.22	6.69	t=2.44	0.532	0.580	[0.081,2.115]
	[0.73]	[0.91]	{0.026}	(0.218)	(0.277)	{0.029}
Train station, 1870	0.82	0.48	t=3.20	0.346	0.362	[0.176,0.569]
	[0.39]	[0.47]	{0.014}	(0.108)	(0.102)	{0.003}
Banks, 1910	5.12	3.42	t=2.99	1.699	1.730	[0.826,3.065]
	[1.69]	[1.79]	{0.013}	(0.568)	(0.565)	{0.002}
Patents registered by 1900	5.05	3.81	t=4.54	1.243	1.288	[0.818,2.047]
	[0.78]	[1.28]	{0.000}	(0.274)	(0.271)	{0.000}
Log population, 1886	9.59	9.12	t=3.54	0.462	0.466	[0.188,0.943]
	[0.43]	[0.51]	{0.002}	(0.130)	(0.136)	{0.005}
Log pop., no civil servants, '86	9.39	9.05	t=2.09	0.341	0.302	[-0.050,0.822]
	[0.59]	[0.53]	{0.051}	(0.163)	(0.185)	{0.074}
D. Very long term						
Log population, 1999	10.11	9.45	t=3.91	0.663	0.636	[0.218,1.014]
	[0.55]	[0.71]	{0.002}	(0.169)	(0.184)	{0.003}
Public employees (p.c.), 2015	0.26	0.15	t=4.23	0.112	0.117	[0.073,0.170]
	[0.09]	[0.06]	{0.001}	(0.026)	(0.027)	{0.000}
Private employees (p.c.), 2015	0.62	0.42	t=4.87	0.195	0.197	[0.121,0.283]
	[0.15]	[0.09]	{0.000}	(0.040)	(0.037)	{0.000}

Notes: This table reports endline outcomes for our baseline sample of 17 departments measured in capital cities compared to other candidate cities. Standard deviations are reported in brackets. Columns 3 reports the t-statistic from a paired t-test of equality of means between capitals and other candidates, with $N-1$ degrees of freedom where $N=17$ is the number of departments. In curly brackets, we report the randomization inference (RI) p-value based on this t-stat obtained after 10,000 permutations of the treatment. Column 4 reports the average difference between capitals and other candidates. Column 5 report the coefficient from regressions of each variable on capital status, where each regression includes department fixed effects (equation 1). Heteroskedasticity-robust standard errors are reported in parentheses. Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in column 5, obtained after 10,000 permutations of the treatment. Across all columns, the sample includes 50 cities across 17 departments.

Table 5: Effects of Capital Status: Augmented Sample

	(1) **Capitals** [SD]	(2) **Candidates** [SD]	(3) **t-test** {RI p-value}	(4) **Difference** (SE)	(5) **OLS** (SE)	(6) **Randomization inference** [95% CI] & {RI p-value}
A. Short term (before 1815)						
Cadaster by 1815	0.63	0.24	t=3.33	0.377	0.384	[0.152,0.596]
	[0.49]	[0.38]	{0.005}	(0.111)	(0.112)	{0.004}
Conscripts 1802-1815	5.88	5.70	t=1.81	0.174	0.187	[-0.001,0.483]
	[0.52]	[0.50]	{0.083}	(0.096)	(0.104)	{0.051}
Police force in 1816	3.16	0.91	t=8.06	2.252	2.246	[1.742,2.809]
	[1.03]	[0.49]	{0.000}	(0.279)	(0.315)	{0.000}
Prison project by 1815	0.60	0.37	t=2.04	0.228	0.225	[0.057,0.541]
	[0.50]	[0.46]	{0.049}	(0.112)	(0.109)	{0.044}
Tribunal project by 1815	0.68	0.31	t=3.08	0.367	0.344	[0.143,0.725]
	[0.48]	[0.43]	{0.007}	(0.119)	(0.113)	{0.001}
Secondary school, 1812	0.92	0.75	t=1.84	0.173	0.154	[0.000,0.444]
	[0.28]	[0.39]	{0.074}	(0.094)	(0.105)	{0.069}
Hospital project by 1815	0.36	0.28	t=0.54	0.075	0.061	[-0.143,0.423]
	[0.49]	[0.43]	{0.667}	(0.138)	(0.114)	{0.319}
B. Medium term (before 1850)						
Business tax per plant, 1839	5.12	3.96	t=2.07	1.157	0.989	[0.032,2.043]
	[1.63]	[2.26]	{0.050}	(0.559)	(0.514)	{0.045}
Secondary school, 1836	0.92	0.83	t=1.09	0.09	0.081	[-0.088,0.419]
	[0.28]	[0.33]	{0.376}	(0.083)	(0.099)	{0.130}
Hospital project by 1840	0.68	0.38	t=2.36	0.297	0.254	[0.062,0.678]
	[0.48]	[0.46]	{0.030}	(0.126)	(0.118)	{0.045}
Industrial establishments, 1839	2.52	2.32	t=0.52	0.208	0.183	[-0.554,0.832]
	[1.30]	[1.53]	{0.604}	(0.399)	(0.412)	{0.729}
Banks, 1851	2.56	2.43	t=0.28	0.130	0.122	[-0.547,1.058]
	[1.45]	[1.76]	{0.804}	(0.472)	(0.558)	{0.498}
Patents registered by 1850	2.72	2.04	t=2.41	0.686	0.721	[0.245,1.232]
	[0.94]	[1.31]	{0.025}	(0.285)	(0.256)	{0.006}
C. Long term (before 1914)						
Telegraph connexion, 1863	0.88	0.04	t=9.81	0.842	0.820	[0.639,0.960]
	[0.33]	[0.12]	{0.000}	(0.086)	(0.093)	{0.000}
Welfare beneficiaries, 1871	7.25	6.71	t=3.01	0.544	0.577	[0.183,1.807]
	[0.81]	[0.84]	{0.006}	(0.181)	(0.221)	{0.008}
Train station, 1870	0.72	0.42	t=2.88	0.295	0.292	[0.086,0.465]
	[0.46]	[0.46]	{0.012}	(0.102)	(0.107)	{0.010}
Banks, 1910	5.36	3.59	t=3.27	1.768	1.669	[0.755,3.00]
	[2.29]	[1.70]	{0.003}	(0.541)	(0.578)	{0.002}
Patents registered by 1900	5.02	3.93	t=5.25	1.097	1.120	[0.755,1.631]
	[0.76]	[1.16]	{0.000}	(0.209)	(0.227)	{0.000}
Log population, 1886	9.58	9.18	t=3.68	0.399	0.402	[0.173,0.798]
	[0.43]	[0.44]	{0.001}	(0.108)	(0.120)	{0.003}
Log pop., no civil servants, '86	9.38	9.08	t=2.33	0.299	0.273	[-0.011,0.761]
	[0.57]	[0.48]	{0.027}	(0.128)	(0.147)	{0.058}
D. Very long term						
Log population, 1999	10.25	9.59	t=4.81	0.676	0.668	[0.336,0.986]
	[0.59]	[0.69]	{0.000}	(0.138)	(0.156)	{0.001}
Public employees (p.c.), 2015	0.27	0.15	t=5.26	0.118	0.120	[0.082,0.171]
	[0.10]	[0.05]	{0.000}	(0.022)	(0.023)	{0.000}
Private employees (p.c.), 2015	0.62	0.44	t=5.02	0.173	0.174	[0.111,0.266]
	[0.14]	[0.10]	{0.000}	(0.034)	(0.033)	{0.000}

Notes: This table reports endline outcomes for our augmented sample of 25 departments measured in capital cities compared to other candidate cities. Standard deviations are reported in brackets. Columns 3 reports the t-statistic from a paired t-test of equality of means between capitals and other candidates, with $N-1$ degrees of freedom where $N=25$ is the number of departments. In curly brackets, we report the randomization inference (RI) p-value based on this t-stat obtained after 10,000 permutations of the treatment. Column 4 reports the average difference between capitals and other candidates. Column 5 report the coefficient from regressions of each variable on capital status, where each regression includes department fixed effects (equation 1). Heteroskedasticity-robust standard errors are reported in parentheses. Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in column 5, obtained after 10,000 permutations. Across all columns, the sample includes 69 cities across 25 departments.

Table 6: Effects on the Periphery of Capitals: Balance Checks

	Main Sample		Augmented Sample	
	Difference	RI	Difference	RI
	(1)	(2)	(3)	(4)
Log market access (low θ)	-0.082	[-0.243,0.090]	-0.105	[-0.223,0.023]
	(0.063)	{0.283}	(0.057)	{0.098}
	{0.25}		{0.12}	
Log market access (high θ)	-0.199	[-0.673,0.381]	-0.193	[-0.612,0.195]
	(0.200)	{0.520}	(0.184)	{0.278}
	{0.37}		{0.34}	
Log urban potential	-0.003	[-0.018,0.018]	0.000	[-0.012,0.028]
	(0.006)	{0.984}	(0.007)	{0.409}
	{0.71}		{0.96}	
Log population in 1793	0.065	[-0.034,0.158]	0.040	[-0.048,0.117]
	(0.051)	{0.182}	(0.046)	{0.391}
	{0.25}		{0.41}	
Population growth, 1793-1800	-0.008	[-0.036,0.023]	-0.007	[-0.028,0.019]
	(0.013)	{0.652}	(0.011)	{0.734}
	{0.55}		{0.55}	
Wheat suitability (GAEZ)	-0.390	[-0.767,0.122]	-0.183	[-0.516,0.226]
	(0.181)	{0.157}	(0.166)	{0.448}
	{0.06}		{0.31}	
Caloric yield	0.000	[-0.031,0.019]	-0.017	[-0.039,0.027]
	(0.017)	{0.635}	(0.019)	{0.771}
	{0.99}		{0.42}	
Old functions	-0.003	[-0.011,0.003]	0.001	[-0.010,0.006]
	(0.003)	{0.205}	(0.003)	{0.651}
	{0.40}		{0.80}	
Distance to bishopric	0.162	[-0.216,0.476]	0.178	[-0.192,0.456]
	(0.130)	{0.470}	(0.127)	{0.454}
	{0.26}		{0.20}	
Distance to bailiwick	0.072	[-0.123,0.292]	-0.017	[-0.193,0.166]
	(0.079)	{0.435}	(0.084)	{0.916}
	{0.40}		{0.85}	
Distance to tax center	-0.125	[-0.328,0.004]	-0.099	[-0.277,0.020]
	(0.077)	{0.060}	(0.068)	{0.095}
	{0.14}		{0.17}	
Distance to admin center	0.023	[-0.084,0.140]	-0.005	[-0.071,0.096]
	(0.045)	{0.540}	(0.039)	{0.693}
	{0.62}		{0.91}	

Notes: This table compares baseline outcomes between municipalities located in the periphery of capitals and municipalities located in the periphery of other candidate cities. The sample is composed of all the municipalities within a 20-km radius of candidate cities, excluding the candidates themselves. This includes 3,214 municipalities in the baseline sample and 4,539 municipalities in the augmented sample. Columns 1 and 3 report estimates from equation (2). Standard errors clustered by department are reported in parentheses and wild-bootstrap p-values are reported in curly brackets. Geographic controls (area and area squared, altitude, latitude and longitude) are included throughout. Columns 2 and 4 report the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in columns 1 and 3, obtained after 10,000 permutations of the treatment.

Table 7: Effects on the Periphery of Capitals: Endline

	Main Sample		Augmented Sample	
	Difference	RI	Difference	RI
	(1)	(2)	(3)	(4)
A. Short term (before 1815)				
Cadastre by 1815	0.085	[0.020,0.172]	0.119	[0.031,0.164]
	(0.037)	{0.019}	(0.029)	{0.006}
	{0.04}		{0.00}	
Conscripts 1802-1815	-0.042	[-0.140,0.072]	-0.034	[-0.102, 0.027]
	(0.039)	{0.513}	(0.028)	{0.237}
	{0.32}		{0.24}	
B. Medium term (before 1850)				
Business tax per plant	0.036	[-0.159,0.324]	0.011	[-0.161,0.164]
	(0.109)	{0.584}	(0.078)	{0.974}
	{0.77}		{0.90}	
Industrial establishments, 1839	-0.005	[-0.048,0.049]	-0.011	[-0.059,0.016]
	(0.026)	{0.977}	(0.021)	{0.291}
	{0.87}		{0.62}	
Banks, 1851	-0.008	[-0.022,0.005]	-0.007	[-0.017,0.004]
	(0.007)	{0.291}	(0.005)	{0.215}
	{0.21}		{0.25}	
Patents registered by 1850	0.008	[-0.015,0.027]	0.010	[-0.020,0.020]
	(0.009)	{0.530}	(0.008)	{0.957}
	{0.41}		{0.22}	
C. Long term (before 1914)				
Welfare beneficiaries, 1871	0.036	[-0.284, 0.179]	0.070	[-0.164,0.224]
	(0.124)	{0.656}	(0.101)	{0.734}
	{0.80}		{0.52}	
Train station, 1870	0.008	[-0.005,0.033]	0.007	[-0.008,0.022[
	(0.007)	{0.127}	(0.007)	{0.329}
	{0.35}		{0.32}	
Banks, 1910	-0.017	[-0.036,0.014]	-0.011	[-0.024,0.013]
	(0.011)	{0.397}	(0.009)	{0.581}
	{0.17}		{0.25}	
Patents registered by 1900	0.04	[-0.021,0.113]	0.083	[0.005,0.108]
	(0.028)	{0.178}	(0.036)	{0.033}.
	{0.20}		{0.03}	
Log population in 1911	-0.036	[-0.122, 0.019]	0.036	[-0.082,0.101]
	(0.032)	{0.126}	(0.045)	{0.888}
	{0.33}		{0.50}	
D. Very long term				
Log population in 1999	0.041	[-0.163, 0.167]	0.154	[-0.024,0.277]
	(0.068)	{0.958}	(0.078)	{0.103}
	{0.61}		{0.09}	

Notes: This table compares endline outcomes between municipalities located in the periphery of capitals and municipalities located in the periphery of other candidate cities. The sample is composed of all the municipalities within a 20-km radius of candidate cities, excluding the candidates themselves.This includes 3,214 municipalities in the baseline sample and 4,539 municipalities in the augmented sample. Columns 1 and 3 report estimates from equation (2). Standard errors clustered by department are reported in parentheses and wild-bootstrap p-values are reported in curly brackets. All specifications control for area and area squared, altitude, latitude and longitude), log population in 1793 and 1800, four dummy variables indicating the presence of bishoprics, bailiwicks, tax centers, and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability. Columns 2 and 4 report the 95% permutation-based randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in columns 1 and 3, obtained after 10,000 permutations of the treatment.

Table 8: The Early Buildup of Coercive Capacity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	A. Effects on coercive capacity								
	Cadaster			**Business tax**		**Conscripts**	**Police**	**Tribunal**	**Prison**
	1815	1830	1850	Total	Per firm	1802-15	1816	1815	1815
Capital in 1800	0.1902	0.0906	0.0046	2.0653	1.5381	0.1437	2.2795	0.2357	0.4476
	[0.1319]	[0.1056]	[0.0062]	[0.8349]	[0.5961]	[0.0639]	[0.2679]	[0.1551]	[0.1319]
	(0.1224)	(0.1082)	(0.0069)	(0.5588)	(0.4308)	(0.0545)	(0.3200)	(0.1332)	(0.1047)
	{0.143}	{0.435}	{0.670}	{0.001}	{0.000}	{0.018}	{0.000}	{0.110}	{0.002}
Closest candidate is capital	0.1288	0.1323	0.0000	-0.0698	-0.0640	-0.0657	0.0003	0.0009	-0.0011
	[0.0316]	[0.0457]	[0.0051]	[0.0999]	[0.0889]	[0.0364]	[0.0032]	[0.0020]	[0.0018]
	(0.0367)	(0.0596)	(0.0070)	(0.1162)	(0.1075)	(0.0419)	(0.0029)	(0.0018)	(0.0017)
	{0.005}	{0.086}	{0.997}	{0.590}	{0.592}	{0.164}	{0.910}	{0.615}	{0.511}
Number of municipalities	3,044	3,044	3,044	3,264	3,264	3,264	3,264	3,264	3,264
DV control mean	0.169	0.553	0.992	0.443	0.411	2.630	0.002	0.001	0.001
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.148	0.100	0.027	0.230	0.176	0.576	0.836	0.434	0.489
	B. Effects on productive capacity								
	Sec. schools		**Hospitals**		**Welfare** (1871)		**Telegraph**	**Railway**	
	1812	1836	1815	1840	Benef.	Exp.	1863	1852	1870
Capital in 1800	0.1740	0.1866	0.0661	0.2765	0.8041	0.7098	0.8109	0.0754	0.3858
	[0.0877]	[0.0776]	[0.1406]	[0.1390]	[0.4271]	[0.6709]	[0.0936]	[0.0775]	[0.1254]
	(0.1089)	(0.1079)	(0.1484)	(0.1285)	(0.3659)	(0.4597)	(0.1094)	(0.0575)	(0.1113)
	{0.179}	{0.219}	{0.656}	{0.048}	{0.081}	{0.178}	{0.000}	{0.207}	{0.008}
Closest candidate is capital	0.0012	-0.0007	-0.0012	-0.0009	0.1009	0.1962	0.0016	0.0012	0.0080
	[0.0021]	[0.0018]	[0.0021]	[0.0021]	[0.1012]	[0.1567]	[0.0010]	[0.0025]	[0.0087]
	(0.0017)	(0.0017)	(0.0018)	(0.0022)	(0.1264)	(0.1962)	(0.0007)	(0.0031)	(0.0122)
	{0.458}	{0.711}	{0.446}	{0.685}	{0.472}	{0.371}	{0.074}	{0.723}	{0.575}
Number of municipalities	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
DV control mean	0.002	0.001	0.001	0.002	1.038	1.727	0.000	0.002	0.040
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.738	0.810	0.321	0.505	0.386	0.344	0.747	0.090	0.181

Notes: This table reports estimates from equation (3). The sample includes all municipalities located within a 20-km radius of candidate cities in 1790 in the main sample. Standard errors clustered by candidate city are reported in brackets. Standard errors clustered by department are reported in parentheses. Wild bootstrap p-values are reported in curly brackets. Controls include log population in 1793 and 1800, latitude and longitude, land area and land area squared, minimal and maximal altitude, a dummy for each of the four *Ancien Régime* administrative functions: *évêchés* (bishoprics), *bailliages* (bailiwicks), *recettes des finances* (tax centers), and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability in 20-km radius around each municipality. In columns 1–3 of Panel A, the date of the first cadaster is unobserved for 220 municipalities (7% of the sample).

Table 9: Dynamic Effects on Economic Development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	A. Effects on private sector activity							
	Estab.	**Prod Value**		**Banks**			**Patents**	
	1839-47		1851	1869	1910	1850	1870	1914
Capital in 1800	0.6562	3.2126	0.6761	1.3814	1.8892	0.6663	1.0161	1.3283
	[0.4361]	[1.4334]	[0.4276]	[0.5097]	[0.5296]	[0.3479]	[0.3461]	[0.3098]
	(0.2697)	(1.2338)	(0.5791)	(0.4065)	(0.5869)	(0.3170)	(0.2872)	(0.2902)
	{0.019}	{0.013}	{0.312}	{0.010}	{0.012}	{0.051}	{0.008}	{0.002}
Closest candidate is capital	-0.0254	-0.2186	0.0001	0.0043	-0.0148	0.0101	0.0078	0.0348
	[0.0264]	[0.2016]	[0.0056]	[0.0077]	[0.0118]	[0.0111]	[0.0142]	[0.0204]
	(0.0280)	(0.2374)	(0.0066)	(0.0084)	(0.0169)	(0.0145)	(0.0187)	(0.0277)
	{0.421}	{0.415}	{0.987}	{0.626}	{0.490}	{0.541}	{0.699}	{0.263}
Number of municipalities	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
DV control mean	0.100	0.963	0.002	0.014	0.026	0.041	0.127	0.226
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.368	0.219	0.718	0.664	0.745	0.496	0.503	0.496
	B. Effects on population							
	Log population in:							
	1800	1821	1846	1866	1886	1886†	1911	1999
Capital in 1800	-0.0049	0.0700	0.1203	0.2755	0.4475	0.3036	0.4729	0.7492
	[0.0448]	[0.0426]	[0.0678]	[0.0844]	[0.0930]	[0.1117]	[0.1116]	[0.1488]
	(0.0365)	(0.0469)	(0.0613)	(0.0698)	(0.0836)	(0.1139)	(0.1017)	(0.1420)
	{0.891}	{0.159}	{0.076}	{0.002}	{0.000}	{0.014}	{0.001}	{0.000}
Closest candidate is capital	-0.0119	-0.0088	-0.0339	-0.0385	-0.0388	-0.0445	-0.0394	0.1391
	[0.0107]	[0.0069]	[0.0115]	[0.0120]	[0.0173]	[0.0186]	[0.0284]	[0.0613]
	(0.0131)	(0.0087)	(0.0146)	(0.0153)	(0.0227)	(0.0245)	(0.0387)	(0.0787)
	{0.390}	{0.367}	{0.056}	{0.038}	{0.131}	{0.110}	{0.364}	{0.124}
Number of municipalities	3,264	3,254	3,261	3,261	3,264	3,260	3,264	3,076
DV control mean	6.075	6.179	6.290	6.235	6.148	6.089	5.982	5.785
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.945	0.963	0.937	0.923	0.892	0.877	0.843	0.704

Notes: This table reports estimates from equation (3). The sample includes all municipalities located within a 20-km radius of candidate cities in 1790 in the main sample. Standard errors clustered by candidate city are reported in brackets. Standard errors clustered by department are reported in parentheses. Wild bootstrap p-values are reported in curly brackets. Controls include log population in 1793, log population in 1800 (except in column 1 of Panel B), latitude and longitude, land area and land area squared, minimal and maximal altitude, a dummy for each of the four *Ancien Régime* administrative functions: *évêchés* (bishoprics), *bailliages* (bailiwicks), *recettes des finances* (tax centers), and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability in 20-km radius around each municipality. In column 6 of Panel B, we look at the 1886 log population excluding civil servants and their families (see Section 6.4). In column 8, we lose some observations due to municipal mergers and splits taking place after 1914.

Appendix (For Online Publication)

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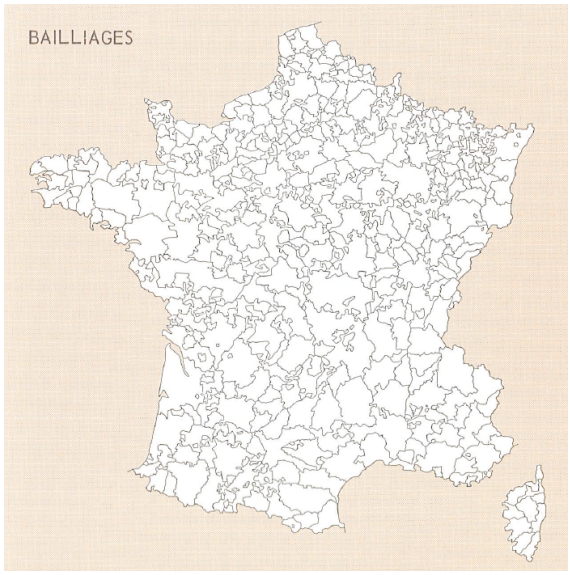
A Additional Results

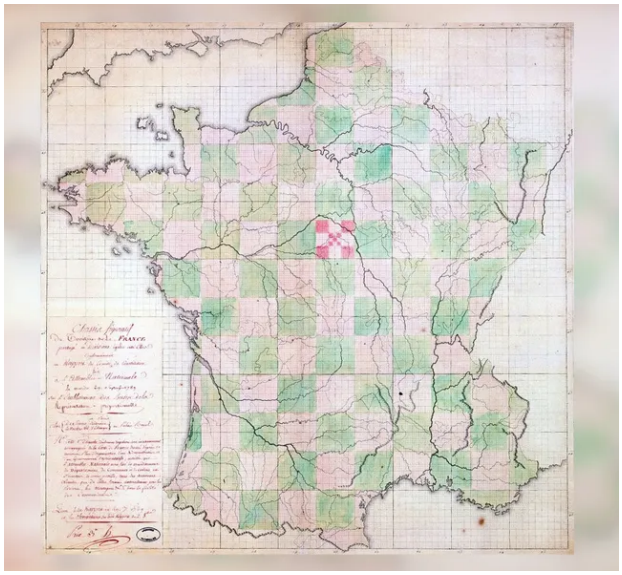
Figures

Figure A.1: Existing and Proposed Administrative Maps in 1789

(a) Bailiwicks in 1789 from Nordman et al. (1995)



(b) The Sieyès Proposal



(c) Final Proposal Adopted in February 1790

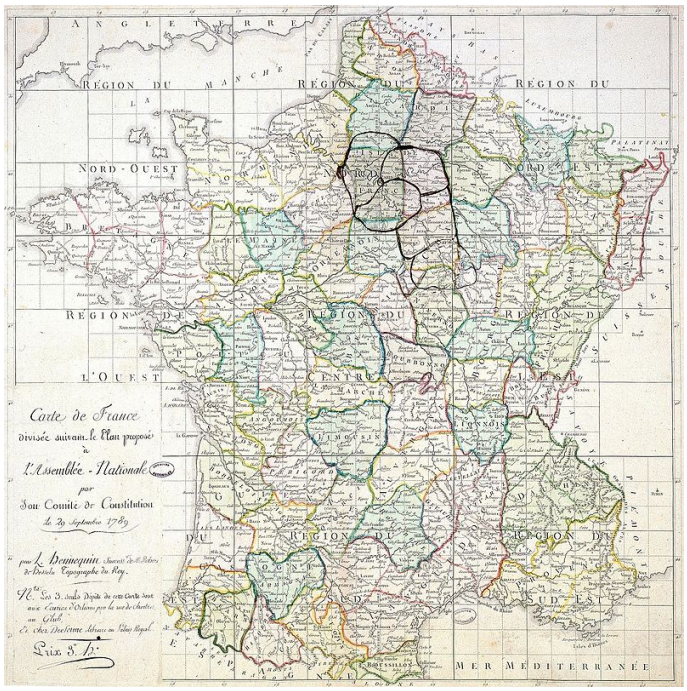
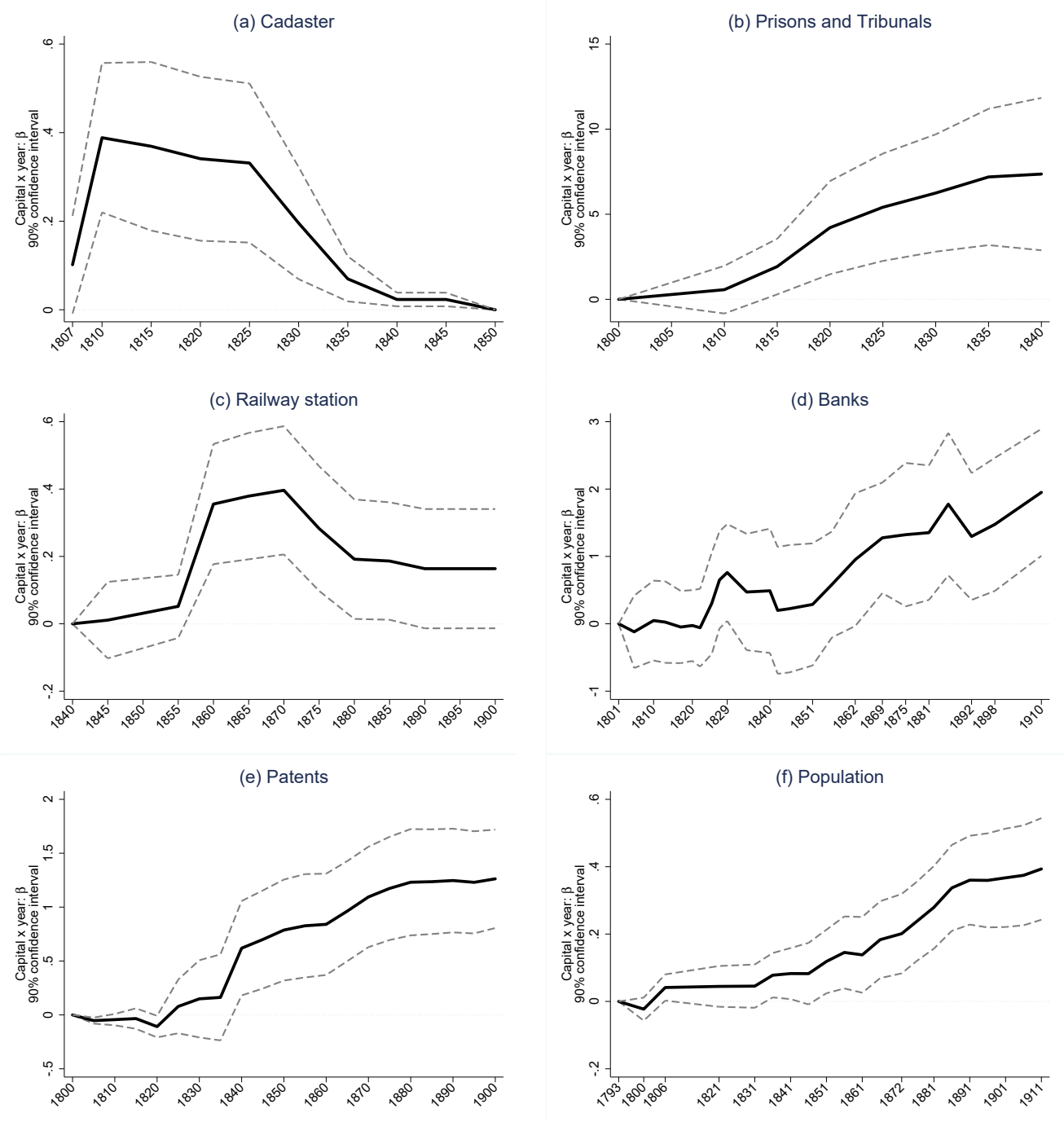


Figure A.2: Dynamic Effects of Capital Status
Augmented Sample



Notes: This figure shows the dynamic effects of the administrative reform during the 19th century. We plot the regression coefficients from a modified version of equation (1) estimated on a panel dataset at the municipality-year level, including municipality and year fixed effects. The sample only includes the 69 candidate cities in our augmented sample. The dependent variable is: in panel (a), a dummy variable equal to 1 if a municipality has established a cadaster by year t; in panel (b), the cumulative number of constructions and renovations of prisons and tribunal buildings by year t; in panel (c) a dummy variable equal to 1 if the municipality has a railway station by year t; in panel (d), the number of banks operating in the municipality in year t; in panel (e), the (hyperbolic sine-transformed) number of patents registered by residents of the municipality; in panel (f), log population measured in year t. The dashed lines indicate 90% confidence intervals, with standard errors two-way clustered by municipality and by department-year.

Tables

Table A.1: Complete list of Departments Created in 1790

Modern name	Original name	Artificial Département	With Rotation/election	With List of Candidates
Ain	de Bresse	✓		
Aisne	du Vermandois et du Soissonnois	✓	✓	✓
Allier	du Bourbonnois			
Ardèche	du Vélai et du Vivarais	✓	✓	✓
Ardennes†	septentrional de la Champagne	✓	✓	
Ariège	de Foix et de Cousérans	✓	✓	✓
Aube	de Troyes			
Aude	de Carcassonne			
Aveyron†	de Rouergue	✓	✓	
Bas-Rhin	de Strasbourg			
Basses-Alpes	de la Haute Provence	✓	✓	
Basses-Pyrénées	du Béarn			
Bouches-du-Rhône	de l'ouest de la Provence			
Cantal	de la Haute-Auvergne	✓	✓	✓
Calvados	de Caen			
Charente	de l'Angoumois			
Charente-Inférieure	de Saintonge et d'Aunis	✓	✓	✓
Cher	du Haut Berry			
Corrèze	du Bas Limousin	✓		
Corse	de Corse			
Côte d'or	de Dijon			
Côtes-du-Nord	de Saint-Brieuc			
Creuse	de la Marche			
Deux-Sèvres	intermédiaire du Poitou	✓	✓	✓
Dordogne	du Périgord	✓	✓	✓
Doubs	de Besançon			
Drôme†	du Bas Dauphiné	✓	✓	
Eure	d'Évreux			
Eure-et-Loir	de Chartres			
Finistère†	de la partie basse de la Bretagne	✓	✓	
Gard	de Nîmes			
Gers	d'Armagnac	✓		
Gironde	de Bordelois			
Haute-Alpes	du Dauphiné oriental	✓	✓	
Haute-Garonne	de Toulouse			
Haute-Loire	du Velay	✓		
Haute-Marne	méridional de la Champagne	✓	✓	✓
Hautes-Pyrénées	de Bigorre	✓		
Haut-Rhin	de Colmar			
Haute-Saône	d'Amont	✓	✓	✓
Haute-Vienne	du Haut Limousin			
Hérault	de Montpellier			
Ille-et-Vilaine	de Rennes			
Indre	du Bas Berry	✓	✓	✓
Indre-et-Loire	de Touraine			
Isère	du Dauphiné Nord			
Jura	d'Aval	✓	✓	✓

Table A.1 (continued): Complete list of Departments Created in 1790

Modern name	Original name	Artificial Département	With Rotation/election	With List of Candidates
Landes†	des Landes et Chalosse	✓	✓	
Loir-et-Cher	du Blaisois	✓		
Loire-Inférieure	de Nantes			
Loiret	de l'Orléanois			
Lot	du Quercy	✓		
Lot-et-Garonne	d'Agénois	✓		
Lozère	du Gévaudan	✓	✓	✓
Maine-et-Loire	d'Anjou			
Manche†	du Cotentin	✓	✓	
Marne	de Châlons			
Mayenne	du bas Maine ou de Laval			
Meurthe	de Lorraine			
Meuse	du Barrois	✓	✓	✓
Morbihan	de Vannes			
Moselle	de Metz			
Nièvre	du Nivernois			
Nord	Deux Flandres, Hainaut et Cambrésis	✓		
Oise†	du Beauvaisis	✓	✓	
Orne	d'Alençon			
Paris	de Paris			
Pas-de-Calais	d'Artois			
Puy-de-Dôme	de la Basse Auvergne			
Pyrénées-Orientales	du Roussillon			
Saône-et-Loire	du Mâconnois	✓	✓	✓
Sarthe	du Haut Maine			
Seine-et-Marne†	de la Brie et du Gâtinois	✓	✓	
Seine-et-Oise	de Versailles			
Seine-Inférieure	de Rouen			
Somme	d'Amiens			
Tarn	de l'Albigeois	✓	✓	✓
Var	de l'est de la Provence	✓	✓	✓
Vendée	occidental du Poitou	✓		
Vienne	du Haut Poitou			
Vosges	des Vosges	✓	✓	✓
Yonne	de l'Auxerrois			

Notes: This table lists all the departments created in January and February 1790 along with their original name. Our main sample consists of departments with an equivocal name (not named after a single city or province), in which a rotation or local election was due to take place, and for which the list of candidate cities was explicitly specified. To distinguish between royal provinces and territories with no official status under the Ancien Régime, we use the list provided in the Royal Ordinance of 8 March 1776, which includes 39 provinces (*gouvernements généraux*). When a department was named after the subset of an old province, we consider the name as ambiguous if the department did not include the old provincial capital. For example, the department of Basse Auvergne (Puy-de-Dôme) included the historical capital of Auvergne, Clermont-Ferrand, while the department of Haute Auvergne (Cantal) did not. In departments flagged with a †, we use historical archives to reconstruct the list of candidate cities. The list excludes the department of Rhône-et-Loire which was split in 1793 into two separate departments called Rhône and Loire.

Table A.2: Selection of cities in Departments with rotation/election and no list

Name	List	Historical sources	Local elections	Requests
Ardennes	*Charleville, Mézières, Rethel, Sedan*	✓		✓
Aveyron	*Rodez, Villefranche-de-Rouergue*	✓		
Basses-Alpes	*Digne-les-Bains*	✓		
Drôme	*Crest, Montélimar, Valence*	✓	✓	
Finistère	*Landerneau, Quimper*	✓	✓	
Hautes-Alpes	*Gap*	✓	✓	
Landes	*Dax, Mont-de-Marsan*	✓		✓
Lot-et-Garonne	*Agen*	✓		
Manche	*Coutances, Saint-Lô*	✓	✓	✓
Oise	*Beauvais, Compiègne*	✓		
Seine-et-Marne	*Meaux, Melun*	✓	✓	✓

Notes: This table lists all the artificial departments where a rotation or an election was decided in the 26 February 1790 decree, but an explicit list of candidate cities was not specified. For each of these department, we specify the list of potential candidates and the criteria used to define this list. In column (3) we specify whether the list comes form the two main historical sources on the creation of departments (Masson, 1984) and/or (Margadant, 1992). In column (4) we specify whether a vote in the local assembly was held, vote in which the cities in the list got a large vote share. In column (5) we specify whether the cities in the list were mentioned in letters sent to the comité de constitution that we collected in the archives. Further details are given below for each department. For 3 out of the 11 artificial department where a list was not specified (Basses-Alpes, Hautes-Alpes and Lot-et-Garonne), a single city was in contention and these department are therefore not included in our final sample.

Ardennes: Masson (1984) states that "the relatively heterogeneous composition of this department meant that no city was seen as having an advantage over the others: Charleville, Mézières, Sedan and Rethel made claims to the *chef-lieu* [capital]." In the letters that we collected from the National Archives, only these four cities are mentioned: Charleville (32 times), Mezières (20), Réthel (27), Sedan (56).

Aveyron: Margadant (1992) describes how deputies from Villefranche-de-Rouergue and Rodez rested their claims to the capital. Representatives from Villefranche arguing that it had better soil conditions and population density, while those from Rodez argued it was more centrally located.

Basses Alpes: Masson (1984) does not mention any rival for Digne, which was confirmed as the capital on 24 January 1791.

Drôme: following the February 1790 decree, local delegates met on 28 May 1790 in the neutral town of Chabeuil. Valence obtained 157 votes to become the capital, beating Montélimar with 140 votes and Crest with 68.

Finistère: Masson (1984) describes how a first vote inside the department elected the town of Landerneau as capital, but this was undone by a second vote in which the town of Quimper was chosen. Local delegates ultimately agreed to leave this choice to the Committee. A decision was eventually made in August 1790 in favor of Landerneau, but once again, voices were then raised in favor of Quimper. Abbé Beradieu declared that *"the coast of Quimper is as poor as that of Landerneau is opulent"* and that not obtaining the status of capital would lead to Quimper's ruin. Quimper was eventually chosen.

Hautes Alpes: Masson (1984) reports that the local assembly held on 7 July 1790 in the town of Chorges decided without a vote that the capital would be Gap.

Landes: stuck between Gironde and Lot et Garonne, the department had to fight for its existence and the two main cities Dax and Mont-de-Marsan tried to build different alliances. As stated in Masson

(1984), when the department was eventually created, *"the rivalry between Dax and Mont-de-Marsan seemed difficult to resolve."* Moreover, in the letters that we collected from the archives, Dax was mentioned 35 times as a candidate for capital and Mont de Marsan 14 times, while two other cities are also mentioned, Saint-Sever and Tartas.

Lot et Garonne: Masson (1984) does not present any rival to Agen and even refers to the department as the *département d'Agen*. The issue revolved around the limits of the department. Masson (1984) explains that *"the limits of the department of Gironde, Lot et Garonne and Landes eventually were established. Bordeaux became without any problem the chef-lieu of its department, and so did Agen. On the contrary, in the Landes, the rivalry between Dax and Mont-de-Marsan seemed difficult to resolve."* Margadant (1992) describes a similar process where several towns tried to escape the domination of Bordeaux and Agen to create an intermediate department.

Manche: Masson (1984) describes the rivalry between Coutances and Saint-Lô. During a meeting between the deputies of the department held on December 18 1789, both towns received the same number of votes. Coutances was eventually chosen.

Oise: the local assembly decided to organize a rotation between Beauvais and Compiègne and this decision was ratified by the Constituent Assembly on 16 November 1790. As noted by Margadant (1992), this was the only rotation that was decided by a local assembly.

Seine-et-Marne: Masson (1984) states that the rivalry was limited to Melun and Meaux, which was resolved by a vote on 24 May 1790 when Melun was chosen by 259 votes in favor and 231 votes against. In the letters there are 27 mentions of Melun and 9 for Meaux.

Table A.3: Comparison of Artificial Departments with Others

	(1) **Baseline sample**	(2) **Augmented sample**	(3) **Other dep.**	(4) **Others, excl. Paris**
Size of largest city (thousand)	10.82	11.23	40.30	28.92
	[4.96]	[5.05]	[89.76]	[26.2]
Δ(Largest-2nd largest city)	2.95	3.42	30.52	19.05
	[2.50]	[3.12]	[89.32]	[21.91]
Centrality of largest city	32.86	34.13	20.80	21.14
	[16.79]	[15.95]	[14.20]	[14.10]
Total population, 1793	287.05	303.55	337.56	330.18
	[87.9]	[94.05]	[145.7]	[135.6]
Population density, 1793	0.40	0.42	0.68	0.50
	[0.11]	[0.13]	[1.37]	[0.20]
Population growth, 1793-1800	-0.01	-0.01	-0.01	-0.01
	[0.05]	[0.05]	[0.06]	[0.06]
Land area (km2)	7,307.4	7,348.4	6,563.2	6,666.1
	[1,675.9]	[1,524.7]	[1,477.0]	[1,263.1]
Subdélégations	7.65	7.76	8.45	8.56
	[5.34]	[4.68]	[4.11]	[4.06]
Recettes	3.76	4.00	4.10	4.16
	[2.28]	[2.20]	[3.12]	[3.12]
Bailliages	4.82	5.40	5.00	5.02
	[3.17]	[3.10]	[3.50]	[3.53]
Evêchés	1.53	1.64	1.52	1.53
	[1.18]	[1.11]	[1.13]	[1.14]
Distance to Paris (km)	385.14	370.31	348.62	354.53
	[153.93]	[173.90]	[192.63]	[188.97]
Distance to sea (km)	203.99	172.39	160.58	160.7
	[126.83]	[121.24]	[116.62]	[117.65]

Notes: This table reports sample means for various department-level variables measured across the 17 departments in our baseline sample (column 1), the 25 departments in our augmented sample (column 2), all other departments created in 1790 (column 3), and all other departments excluding Paris (column 4).

Table A.4: Robustness on Table 4: Design-Based Approach

	(1) Difference Baseline	(2) Difference Weight by $(n_j/N)^{-1}$	(3) t-test {RI p-value}	(4) Difference Weight by $(1/n_j)^{-1}$	(5) t-test {RI p-value}
A. Short term (before 1815)					
Cadaster by 1815	0.375	0.363	t=2.45	0.342	t=2.41
	(0.144)	(0.148)	{0.041}	(0.142)	{0.042}
Conscripts 1802-1815	0.162	0.131	t=1.22	0.227	t=1.99
	(0.110)	(0.107)	{0.241}	(0.114)	{0.176}
Police force in 1816	2.262	2.165	t=8.26	2.469	t=7.99
	(0.294)	(0.262)	{0.000}	(0.309)	{0.000}
Prison project by 1815	0.179	0.172	t=1.22	0.181	t=1.37
	(0.138)	(0.141)	{0.309}	(0.132)	{0.228}
Tribunal project by 1815	0.324	0.351	t=2.86	0.270	t=2.35
	(0.121)	(0.122)	{0.032}	(0.115)	{0.032}
Secondary school, 1812	0.147	0.160	t=1.61	0.170	t=1.44
	(0.105)	(0.099)	{0.196}	(0.118)	{0.438}
Hospital project by 1815	0.051	0.095	t=0.49	-0.003	t=-0.02
	(0.176)	(0.193)	{0.725}	(0.148)	{1.00}
B. Medium term (before 1850)					
Business tax per plant, 1839	1.506	1.753	t=2.55	1.288	t=2.22
	(0.654)	(0.688)	{0.046}	(0.581)	{0.037}
Hospital project by 1840	0.260	0.346	t=2.45	0.128	t=0.95
	(0.143)	(0.141)	{0.041}	(0.135)	{0.331}
Secondary school, 1836	0.162	0.167	t=1.75	0.195	t=1.82
	(0.098)	(0.095)	{0.186}	(0.107)	{0.310}
Industrial establishments, 1839	0.738	0.674	t=1.92	0.953	t=2.72
	(0.350)	(0.350)	{0.082}	(0.350)	{0.055}
Banks, 1851	0.152	-0.077	t=-0.17	0.552	t=1.04
	(0.485)	(0.445)	{0.879}	(0.529)	{0.466}
Patents registered by 1850	0.805	0.748	t=1.85	0.905	t=2.72
	(0.380)	(0.405	{0.106}	(0.333)	{0.023}
C. Long term (before 1914)					
Telegraph connexion, 1863	0.846	0.853	t=8.53	0.848	t=8.62
	(0.103)	(0.100)	{0.000}	(0.098)	{0.000}
Welfare beneficiaries, 1871	0.532	0.462	t=2.36	0.744	t=2.92
	(0.218)	(0.196)	{0.029}	(0.255)	{0.032}
Train station, 1870	0.346	0.322	t=2.90	0.398	t=3.93
	(0.108)	(0.111)	{0.014	(0.101)	{0.014}
Patents registered by 1900	1.243	1.177	t=4.18	1.411	t=5.37
	(0.274)	(0.282)	{0.000}	(0.262)	{0.000}
Banks, 1910	1.699	1.652	t=2.91	1.917	t=3.38
	(0.568)	(0.569)	{0.018}	(0.568)	{0.016}
Log population, 1911	0.487	0.489	t=3.46	0.467	t=3.74
	(0.137)	(0.141)	{0.004}	(0.125)	{0.002}
D. Very long term					
Log population, 1999	0.663	0.702	t=4.10	0.596	t=3.73
	(0.169)	(0.171)	{0.002}	(0.160)	{0.001}
Public employees (p.c.), 2015	0.112	0.104	t=4.17	0.121	t=4.40
	(0.026)	(0.025)	{0.001}	(0.028)	{0.001}
Private employees (p.c.), 2015	0.195	0.193	t=4.61	0.194	t=5.16
	(0.040)	(0.042)	{0.000}	(0.038)	{0.000}

Notes: This table reports robustness checks on Table 4 using the baseline sample of 50 candidate cities. Column 1 reports the same estimates as those in column 4 of Table 4. Column 2 reports a weighted average of the within-department treatment-control differences, using as weights the inverse probability that city i belongs to stratum (department) j, denoted above as p_j. Column 3 reports the randomization inference p-value corresponding to this t-stat. In columns 4 and 5, we consider an alternative weighting scheme using as weights the inverse of the conditional treatment probability inside each department, $(p_{i|j})^{-1}$.

Table A.5: Robustness on Table 5: Design-Based Approach

	(1) Difference Baseline	(2) Difference Weight by $(n_j/N)^{-1}$	(3) t-test {RI p-value}	(4) Difference Weight by $(1/n_j)^{-1}$	(5) t-test {RI p-value}
A. Short term (before 1815)					
Cadaster by 1815	0.377	0.368	t=3.17	0.355	t=3.16
	(0.111)	(0.114)	{0.009}	(0.110)	{0.008}
Conscripts 1802-1815	0.174	0.156	t=1.65	0.214	t=2.18
	(0.096)	(0.095)	{0.119}	(0.098)	{0.094}
Police force in 1816	2.252	2.26	t=9.20	2.309	t=7.49
	(0.279)	(0.246)	{0.000}	(0.308)	{0.000}
Prison project by 1815	0.228	0.233	t=2.06	0.213	t=1.94
	(0.112)	(0.113)	{0.069}	(0.110)	{0.072}
Tribunal project by 1815	0.367	0.398	t=3.28	0.307	t=2.71
	(0.119)	(0.121)	{0.008}	(0.113)	{0.008}
Secondary school, 1812	0.173	0.200	t=2.23	0.164	t=1.61
	(0.094)	(0.090)	{0.051}	(0.102)	{0.253}
Hospital project by 1815	0.075	0.094	t=0.64	0.042	t=0.34
	(0.138)	(0.147)	{0.601}	(0.122)	{0.735}
B. Medium term (before 1850)					
Business tax per plant, 1839	1.157	1.388	t=2.44	0.963	t=1.84
	(0.559)	(0.569)	{0.031}	(0.522)	{0.075}
Hospital project by 1840	0.297	0.355	t=2.80	0.194	t=1.62
	(0.126)	(0.127)	{0.017}	(0.120)	{0.096}
Secondary school, 1836	0.090	0.102	t=1.35	0.105	t=1.10
	(0.083)	(0.075)	{0.259}	(0.095)	{0.495}
Industrial establishments, 1839	0.208	0.242	t=0.63	0.314	t=0.75
	(0.399)	(0.385)	{0.547}	(0.417)	{0.551}
Banks, 1851	0.130	0.141	t=0.34	0.221	t=0.41
	(0.472)	(0.413)	{0.739}	(0.541)	{0.762}
Patents registered by 1850	0.686	0.639	t=2.15	0.772	t=2.97
	(0.285)	(0.297)	{0.054}	(0.260)	{0.011}
C. Long term (before 1914)					
Telegraph connexion, 1863	0.842	0.871	t=11.2	0.812	t=8.97
	(0.086)	(0.078)	{0.000}	(0.091)	{0.000}
Welfare beneficiaries, 1871	0.544	0.499	t=3.03	0.689	t=3.32
	(0.181)	(0.165)	{0.004}	(0.208)	{0.012}
Train station, 1870	0.295	0.299	t=3.02	0.310	t=2.95
	(0.102)	(0.099)	{0.009}	(0.105)	{0.032}
Patents registered by 1900	1.097	1.067	t=5.24	1.206	t=5.53
	(0.209)	(0.204)	{0.000}	(0.218)	{0.000}
Banks, 1910	1.768	1.906	t=3.74	1.713	t=2.98
	(0.541)	(0.510)	{0.001}	(0.575)	{0.021}
Log population, 1911	0.466	0.463	t=4.27	0.452	t=4.27
	(0.109)	(0.109)	{0.000}	(0.106)	{0.000}
D. Very long term					
Log population, 1999	0.676	0.687	t=4.92	0.638	t=4.66
	(0.138)	(0.137)	{0.000}	(0.134)	{0.000}
Public employees (p.c.), 2015	0.118	0.116	t=5.30	0.122	t=5.30
	(0.022)	(0.021)	{0.000}	(0.023)	{0.000}
Private employees (p.c.), 2015	0.173	0.172	t=4.87	0.175	t=5.29
	(0.034)	(0.035)	{0.000}	(0.032)	{0.000}

Notes: This table reports robustness checks on Table 4 using the augmented sample of 69 candidate cities. Column 1 reports the same estimates as those in column 4 of Table 4. Column 2 reports a weighted average of the within-department treatment-control differences, using as weights the inverse probability that city i belongs to stratum (department) j, denoted above as p_j. Column 3 reports the randomization inference p-value corresponding to this t-stat. In columns 4 and 5, we consider an alternative weighting scheme using as weights the inverse of the conditional treatment probability inside each department, $(p_{i|j})^{-1}$.

Table A.6: Robustness on Table 4: Controls and clustering

	(1) Baseline	(2) Controls	(3) Controls-Lasso	(4) Clustering	(5) Clustering + Controls	(6) Randomization inference
A. Short term (before 1815)						
Cadaster by 1815	0.385	0.512	0.537	0.385	0.512	[-0.007,0.798]
	(0.140)	(0.198)	(0.164)	(0.176) {0.01}	(0.258) {0.03}	{0.054}
Conscripts 1802-1815	0.184	0.007	-0.123	0.184	0.007	[-0.253, 0.352]
	(0.120)	(0.129)	(0.114)	(0.145) {0.15}	(0.194) {0.97}	{0.662}
Police force in 1816	2.329	2.226	2.755	2.329	2.226	[1.235,3.128]
	(0.315)	(0.529)	(0.298)	(0.414) {0.00}	(0.711) {0.00}	{0.000}
Prison project by 1815	0.184	0.279	0.272	0.184	0.279	[-0.108,0.660]
	(0.130)	(0.225)	(0.145)	(0.169) {0.17}	(0.318) {0.27}	{0.150}
Tribunal project by 1815	0.305	0.608	0.353	0.305	0.608	[0.122,0.821]
	(0.118)	(0.159)	(0.132)	(0.149) {0.01}	(0.214) {0.01}	{0.012}
Secondary school, 1812	0.139	-0.007	0.136	0.139	-0.007	[-0.223,0.388]
	(0.119)	(0.142)	(0.138)	(0.144) {0.25}	(0.184) {0.95}	{0.630}
Hospital project by 1815	0.022	-0.104	0.012	0.022	-0.104	[-0.625,0.339]
	(0.138)	(0.266)	(0.214)	(0.189) {0.83}	(0.362) {0.71}	{0.559}
B. Medium term (before 1850)						
Business tax per plant, 1839	1.337	1.993	2.138	1.337	1.993	[-0.425,5.027]
	(0.581)	(1.070)	(0.789)	(0.749) {0.04}	(1.565) {0.09}	{0.099}
Secondary school, 1836	0.158	0.147	0.268	0.158	0.147	[-0.082,0.518]
	(0.108)	(0.116)	(0.111)	(0.130) {0.12}	(0.165) {0.26}	{0.199}
Hospital project by 1840	0.201	0.038	0.239	0.201	0.038	[-0.250,0.542]
	(0.136)	(0.185)	(0.168)	(0.176) {0.18}	(0.255) {0.84}	{0.418}
Industrial establishments, 1839	0.781	0.399	1.223	0.781	0.399	[-0.134,1.978]
	(0.359)	(0.577)	(0.534)	(0.441) {0.05}	(0.688) {0.39}	{0.085}
Banks, 1851	0.308	0.825	0.103	0.308	0.825	[-1.213,1.948]
	(0.530)	(0.833)	(0.636)	(0.669) {0.56}	(1.130) {0.39}	{0.593}
Patents registered by 1850	0.845	0.320	0.918	0.845	0.320	[-0.496,1.176]
	(0.327)	(0.370)	(0.346)	(0.431) {0.03}	(0.587) {0.51}	{0.429}
C. Long term (before 1914)						
Telegraph connexion, 1863	0.841	0.735	0.935	0.841	0.735	[0.437, 0.982]
	(0.097)	(0.183)	(0.115)	(0.132) {0.00}	(0.235) {0.01}	{0.001}
Welfare beneficiaries, 1871	0.580	0.447	0.645	0.580	0.447	[-0.099,0.992]
	(0.277)	(0.576)	(0.487)	(0.310) {0.03}	(0.738) {0.43}	{0.108}
Train station, 1870	0.362	0.205	0.443	0.362	0.205	[-0.036,0.667]
	(0.102)	(0.176)	(0.137)	(0.130) {0.00}	(0.225) {0.29}	{0.071}
Patents registered by 1900	1.288	0.578	1.005	1.288	0.578	[0.166,1.282]
	(0.271)	(0.284)	(0.277)	(0.330) {0.00}	(0.373) {0.04}	{0.014}
Banks, 1910	1.730	1.729	1.701	1.730	1.729	[-0.137,3.573]
	(0.565)	(0.874)	(0.684)	(0.717) {0.01}	(1.118) {0.08}	{0.066}
Log population, 1886	0.466	0.268	0.311	0.466	0.268	[0.025,0.518]
	(0.136)	(0.111)	(0.118)	(0.157) {0.00}	(0.130) {0.01}	{0.034}
Log pop., no civil servants, '86	0.302	0.200	0.180	0.302	0.200	[-0.147,0.574]
	(0.185)	(0.182)	(0.164)	(0.219) {0.11}	(0.260) {0.40}	{0.210}
D. Very long term						
Log population, 1999	0.636	0.691	0.529	0.636	0.691	[0.181,1.120]
	(0.184)	(0.200)	(0.253)	(0.209) {0.00}	(0.243) {0.00}	{0.009}
Public employees (p.c.), 2015	0.117	0.057	0.097	0.117	0.057	[0.017,0.119]
	(0.027)	(0.030)	(0.023)	(0.036) {0.00}	(0.044) {0.07}	{0.012}
Private employees (p.c.), 2015	0.197	0.133	0.151	0.197	0.133	[0.058,0.228]
	(0.037)	(0.065)	(0.043)	(0.048) {0.00}	(0.078) {0.02}	{0.003}

Notes: This table reports robustness checks on equation (1) using the baseline sample of 50 candidate cities. Column 1 reports the same estimates as those in column 5 of Table 4. In column 2, we add pre-determined geographic, demographic, and administrative controls (see text for details). In column 3, we use a double selection LASSO procedure to select covariates among the controls included in column 2, imposing that department dummies are always included. In column 4, we report (in parentheses) standard errors clustered by department alongside (in curly brackets) the p-values from a wild bootstrap with 10,000 replications. In column 5, we include all controls and also cluster standard errors by department. Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022).

Table A.7: Robustness on Table 5: Controls and clustering

	(1) Baseline	(2) Controls	(3) Controls-Lasso	(4) Clustering	(5) Clustering + Controls	(6) Randomization inference
A. Short term (before 1815)						
Cadaster by 1815	0.384	0.455	0.504	0.384	0.455	[0.042,0.645]
	(0.112)	(0.166)	(0.124)	(0.141) {0.00}	(0.195) {0.02}	{0.030}
Conscripts 1802-1815	0.187	0.029	-0.027	0.187	0.029	[-0.089,0.268]
	(0.104)	(0.076)	(0.086)	(0.126) {0.08}	(0.100) {0.69}	{0.279}
Police force in 1816	2.246	2.030	2.410	2.246	2.030	[1.392,2.746]
	(0.315)	(0.375)	(0.384)	(0.413) {0.00}	(0.447) {0.00}	{0.000}
Prison project by 1815	0.225	0.319	0.300	0.225	0.319	[-0.005,0.614]
	(0.109)	(0.157)	(0.123)	(0.142) {0.06}	(0.221) {0.07}	{0.053}
Tribunal project by 1815	0.344	0.383	0.356	0.344	0.383	[0.082,0.615]
	(0.113)	(0.173)	(0.138)	(0.147) {0.01}	(0.227) {0.03}	{0.013}
Secondary school, 1812	0.154	0.006	0.204	0.154	0.006	[-0.138,0.332]
	(0.105)	(0.094)	(0.132)	(0.129) {0.15}	(0.131) {0.95}	{0.397}
Hospital project by 1815	0.061	0.050	0.064	0.061	0.050	[-0.331,0.337]
	(0.114)	(0.162)	(0.154)	(0.157) {0.58}	(0.221) {0.77}	{0.946}
B. Medium term (before 1850)						
Business tax per plant, 1839	0.989	1.514	1.370	0.989	1.514	[-0.084,2.532]
	(0.514)	(0.866)	(0.744)	(0.687) {0.08}	(1.176) {0.15}	{0.068}
Secondary school, 1836	0.081	-0.022	-0.001	0.081	-0.022	[-0.237,0.341]
	(0.099)	(0.128)	(0.123)	(0.120) {0.38}	(0.151) {0.89}	{0.720}
Hospital project by 1840	0.254	0.223	0.279	0.254	0.223	[-0.004,0.529]
	(0.118)	(0.127)	(0.126)	(0.156) {0.05}	(0.166) {0.11}	{0.053}
Industrial establishments, 1839	0.183	-0.465	0.165	0.183	-0.465	[-1.190,0.767]
	(0.412)	(0.551)	(0.549)	(0.538) {0.68}	(0.698) {0.43}	{0.641}
Banks, 1851	0.122	-0.355	-0.446	0.122	-0.355	[-2.514,1.068]
	(0.558)	(0.911)	(0.738)	(0.705) {0.85}	(1.243) {0.89}	{0.537}
Patents registered by 1850	0.721	0.702	0.722	0.721	0.702	[0.006,1.109]
	(0.256)	(0.282)	(0.248)	(0.338) {0.02}	(0.379) {0.06}	{0.047}
C. Long term (before 1914)						
Telegraph connexion, 1863	0.820	0.766	0.875	0.820	0.766	[0.528,0.972]
	(0.093)	(0.135)	(0.112)	(0.122) {0.00}	(0.164) {0.00}	{0.000}
Welfare beneficiaries, 1871	0.577	0.706	0.635	0.577	0.706	[0.116,1.017]
	(0.221)	(0.376)	(0.293)	(0.260) {0.01}	(0.547) {0.12}	{0.015}
Train station, 1870	0.292	0.191	0.347	0.292	0.191	[-0.122,0.438]
	(0.107)	(0.136)	(0.138)	(0.137) {0.01}	(0.172) {0.15}	{0.245}
Patents registered by 1900	1.120	0.793	0.756	1.120	0.793	[0.464,1.042]
	(0.227)	(0.185)	(0.201)	(0.279) {0.00}	(0.193) {0.00}	{0.000}
Banks, 1910	1.669	1.335	1.192	1.669	1.335	[-0.230,3.102]
	(0.578)	(0.828)	(0.700)	(0.748) {0.01}	(1.084) {0.16}	{0.088}
Log population, 1886	0.402	0.305	0.230	0.402	0.305	[0.133,0.478]
	(0.120)	(0.083)	(0.090)	(0.144) {0.00}	(0.087) {0.00}	{0.002}
Log pop., no civil servants, '86	0.256	0.268	0.087	0.256	0.268	[0.005,0.442]
	(0.154)	(0.102)	(0.116)	(0.187) {0.10}	(0.123) {0.02}	{0.045}
D. Very long term						
Log population, 1999	0.668	0.725	0.509	0.668	0.725	[0.329,1.039]
	(0.156)	(0.212)	(0.152)	(0.182) {0.00}	(0.258) {0.00}	{0.001}
Public employees (p.c.), 2015	0.120	0.089	0.109	0.120	0.089	[0.052,0.149]
	(0.023)	(0.028)	(0.021)	(0.030) {0.00}	(0.040) {0.01}	{0.000}
Private employees (p.c.), 2015	0.174	0.115	0.132	0.174	0.115	[0.076,0.221]
	(0.033)	(0.047)	(0.034)	(0.043) {0.00}	(0.059) {0.02}	{0.000}

Notes: This table reports robustness checks on equation (1) using the augmented sample of 69 candidate cities. Column 1 reports the same estimates as those in column 5 of Table 4. In column 2, we add pre-determined geographic, demographic, and administrative controls (see text for details). In column 3, we use a double selection LASSO procedure to select covariates among the controls included in column 2, imposing that department dummies are always included. In column 4, we report (in parentheses) standard errors clustered by department alongside (in curly brackets) the p-values from a wild bootstrap with 10,000 replications. In column 5, we include all controls and also cluster standard errors by department. Column 6 reports the 95% permutation-based randomization confidence interval from Young (2022).

Table A.8: Effects on Social Conflict

	(1) **Capitals** [SD]	(2) **Candidates** [SD]	(3) **t-test** {RI p-value}	(4) **Difference** (SE)	(5) **OLS** (SE)	(6) **Randomization inference** [95% CI] & {RI p-value}
			A. Main sample			
Short term (before 1815)						
Riots against the state	0.35	0.26	t=0.51	0.088	0.162	[-0.088,0.514]
	[0.61]	[0.44]	{0.746}	(0.173)	(0.173)	{0.171}
Fiscal riots	0.00	0.06	t=-1.00	-0.059	-0.049	[-0.073,0.000]
	[0.00]	[0.24]	{1.00}	(0.059)	(0.043)	{0.860}
Total riots	0.47	0.64	t=-0.73	-0.169	-0.085	[-0.400,0.424]
	[0.62]	[0.66]	{0.532}	(0.232)	(0.214)	{0.896}
Medium term (before 1850)						
Riots against the state	0.41	0.46	t=-0.33	-0.051	-0.001	[-0.225,0.374]
	[0.51]	[0.57]	{0.774}	(0.155)	(0.162)	{0.632}
Fiscal riots	0.12	0.28	t=-1.02	-0.162	-0.137	[-0.322,0.144]
	[0.33]	[0.56]	{0.403}	(0.159)	(0.123)	{0.438}
Total riots	1.35	1.53	t=-0.52	-0.174	-0.135	[-0.613,0.717]
	[1.27]	[1.46]	{0.675}	(0.335)	(0.287)	{0.836}
			B. Augmented sample			
Short term (before 1815)						
Riots against the state	0.28	0.23	t=0.37	0.047	0.113	[-0.089,0.367]
	[0.54]	[0.41]	{0.818}	(0.127)	(0.133)	{0.290}
Fiscal riots	0.00	0.04	t=-1.00	-0.04	-0.034	[-0.056,0.000]
	[0.00]	[0.20]	{1.00}	(0.040)	(0.030)	{0.990}
Total riots	0.44	0.53	t=-0.52	-0.088	-0.013	[-0.335,0.312]
	[0.65]	[0.64]	{0.636}	(0.170)	(0.163)	{0.890}
Medium term (before 1850)						
Riots against the state	0.36	0.37	t=-0.07	-0.008	0.017	[-0.158,0.264]
	[0.49]	[0.52]	{0.980}	(0.113)	(0.120)	{0.470}
Fiscal riots	0.08	0.19	t=-1.02	-0.110	-0.096	[-0.246,0.116]
	[0.28]	[0.47]	{0.444}	(0.108)	(0.088)	{0.450}
Total riots	1.24	1.32	t=-0.34	-0.085	-0.071	[-0.530,0.458]
	[1.20]	[1.38]	{0.838}	(0.247)	(0.221)	{0.750}

Notes: This table estimates effects on social conflict measured in the short term (between 1800 and 1815) or the medium term (between 1800 and 1848). Estimation details are identical to those in Tables 4 and 5. Riots against the state include all conflict events involving the military (including desertion and refusing conscription), police forces, or any conflict protesting against a decision taken by the authorities. Fiscal riots include are defined as riots protesting against taxes (local or national). Total riots include all episodes recorded in Chambru and Maneuvrier-Hervieu (2022). In Panel A, the sample includes 50 cities across 17 departments. In Panel B, the sample includes 69 cities across 17 departments.

Table A.9: The Early Buildup of Coercive Capacity: Augmented Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	A. Effects on coercive capacity								
	Cadaster			**Business tax**		**Conscripts**	**Police**	**Tribunal**	**Prison**
	1815	1830	1850	Total	Per firm	1802-15	1816	1815	1815
Capital in 1800	0.1788	0.0537	0.0016	1.0995	1.1516	0.1591	2.1859	0.2778	0.4366
	[0.1059]	[0.0981]	[0.0043]	[0.7582]	[0.5280]	[0.0605]	[0.2741]	[0.1273]	[0.0999]
	(0.1002)	(0.0977)	(0.0048)	(0.7005)	(0.4517)	(0.0581)	(0.3082)	(0.1075)	(0.0999)
	{0.089}	{0.595}	{0.799}	{0.148}	{0.018}	{0.022}	{0.000}	{0.021}	{0.000}
Closest candidate is capital	0.1617	0.1144	0.0004	-0.0386	-0.0355	-0.0321	0.0013	0.0025	0.0004
	[0.0242]	[0.0318]	[0.0031]	[0.1022]	[0.0877]	[0.0298]	[0.0031]	[0.0017]	[0.0016]
	(0.0294)	(0.0425)	(0.0043)	(0.0934)	(0.0851)	(0.0363)	(0.0033)	(0.0015)	(0.0016)
	{0.000}	{0.016}	{0.875}	{0.690}	{0.694}	{0.388}	{0.682}	{0.138}	{0.822}
Number of municipalities	4,226	4,226	4,226	4,608	4,608	4,608	4,608	4,608	4,608
DV control mean	0.183	0.602	0.994	0.585	0.529	2.700	0.003	0.001	0.001
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.192	0.117	0.028	0.219	0.167	0.579	0.797	0.409	0.459
	B. Effects on productive capacity								
	Sec. schools		**Hospitals**		**Welfare** (1871)		**Telegraph**	**Railway**	
	1812	1836	1815	1840	Benef.	Exp.	1863	1852	1870
Capital in 1800	0.1411	0.0899	0.0689	0.2878	0.7580	0.4900	0.7968	0.0520	0.2731
	[0.0770]	[0.0724]	[0.1124]	[0.1070]	[0.3217]	[0.5033]	[0.0888]	[0.0553]	[0.1128]
	(0.1016)	(0.1052)	(0.1155)	(0.0972)	(0.3047)	(0.3883)	(0.0960)	(0.0398)	(0.1157)
	{0.250}	{0.551}	{0.560}	{0.007}	{0.030}	{0.291}	{0.000}	{0.188}	{0.048}
Closest candidate is capital	0.0028	0.0007	0.0000	-0.0009	0.1273	0.1958	0.0017	-0.0006	0.0150
	[0.0020]	[0.0014]	[0.0018]	[0.0018]	[0.0957]	[0.1419]	[0.0011]	[0.0018]	[0.0072]
	(0.0021)	(0.0014)	(0.0017)	(0.0019)	(0.1300)	(0.1916)	(0.0011)	(0.0022)	(0.0097)
	{0.263}	{0.681}	{0.999}	{0.652}	{0.355}	{0.333}	{0.130}	{0.816}	{0.169}
Number of municipalities	4,608	4,608	4,608	4,608	4,608	4,608	4,608	4,608	4,608
DV control mean	0.001	0.001	0.001	0.003	1.158	1.969	0.000	0.003	0.042
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.706	0.803	0.347	0.515	0.380	0.342	0.729	0.063	0.159

Notes: This table reports estimates from equation (3). The sample includes all municipalities located within a 20-km radius of candidate cities in 1790 in the augmented sample. Standard errors clustered by candidate city are reported in brackets. Standard errors clustered by department are reported in parentheses. Wild bootstrap p-values are reported in curly brackets. Controls include log population in 1793 and 1800, latitude and longitude, land area and land area squared, minimal and maximal altitude, a dummy for each of the four *Ancien Régime* administrative functions: *évêchés* (bishoprics), *bailliages* (bailiwicks), *recettes des finances* (tax centers), and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability in 20-km radius around each municipality. In columns 1–3 of Panel A, the date of the first cadaster is unobserved for 382 municipalities (8% of the sample).

Table A.10: Dynamic Effects on Economic Development: Augmented Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	A. Effects on private sector activity							
	Estab.	**Prod Value**		**Banks**			**Patents**	
	1839-47		1851	1869	1910	1850	1870	1914
Capital in 1800	0.0415	1.9611	0.1265	1.0408	1.6387	0.5247	0.7777	0.9662
	[0.3910]	[1.3048]	[0.4542]	[0.4599]	[0.5606]	[0.2830]	[0.2628]	[0.2498]
	(0.3828)	(1.2228)	(0.6607)	(0.4237)	(0.6399)	(0.2462)	(0.2430)	(0.2730)
	{0.923}	{0.127}	{0.856}	{0.035}	{0.031}	{0.051}	{0.009}	{0.004}
Closest candidate is capital	-0.0161	-0.1413	0.0111	0.0084	-0.0011	0.0127	0.0604	0.1212
	[0.0273]	[0.1989]	[0.0053]	[0.0072]	[0.0089]	[0.0118]	[0.0232]	[0.0413]
	(0.0229)	(0.1906)	(0.0067)	(0.0067)	(0.0115)	(0.0093)	(0.0277)	(0.0533)
	{0.491}	{0.471}	{0.175}	{0.251}	{0.927}	{0.187}	{0.050}	{0.033}
Number of municipalities	4,608	4,608	4,608	4,608	4,608	4,608	4,608	4,608
DV control mean	0.139	1.276	0.004	0.012	0.027	0.057	0.149	0.249
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.340	0.206	0.584	0.652	0.720	0.466	0.492	0.487
	B. Effects on population							
	Log population in:							
	1800	1821	1846	1866	1886	1886†	1911	1999
Capital in 1800	-0.0132	0.0672	0.1207	0.2330	0.3434	0.2005	0.3755	0.5125
	[0.0367]	[0.0346]	[0.0547]	[0.0696]	[0.0788]	[0.0944]	[0.0931]	[0.1484]
	(0.0303)	(0.0355)	(0.0466)	(0.0578)	(0.0775)	(0.1022)	(0.0906)	(0.1590)
	{0.667}	{0.070}	{0.017}	{0.000}	{0.000}	{0.062}	{0.001}	{0.008}
Closest candidate is capital	-0.0074	0.0001	-0.0020	0.0004	0.0178	0.0174	0.0455	0.2742
	[0.0088]	[0.0070]	[0.0156]	[0.0200]	[0.0292]	[0.0308]	[0.0409]	[0.0687]
	(0.0113)	(0.0095)	(0.0217)	(0.0275)	(0.0402)	(0.0425)	(0.0570)	(0.0920)
	{0.532}	{0.996}	{0.939}	{0.990}	{0.767}	{0.787}	{0.552}	{0.006}
Number of municipalities	4,608	4,580	4,604	4,604	4,608	4,604	4,608	4,371
DV control mean	6.120	6.223	6.329	6.282	6.198	6.143	6.044	5.926
Department FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.948	0.965	0.937	0.917	0.882	0.870	0.833	0.702

Notes: This table reports estimates from equation (3). The sample includes all municipalities located within a 20-km radius of candidate cities in 1790 in the augmented sample. Standard errors clustered by candidate city are reported in brackets. Standard errors clustered by department are reported in parentheses. Wild bootstrap p-values are reported in curly brackets. Controls include log population in 1793, log population in 1800 (except in column 1 of Panel B), latitude and longitude, land area and land area squared, minimal and maximal altitude, a dummy for each of the four *Ancien Régime* administrative functions: *évêchés* (bishoprics), *bailliages* (bailiwicks), *recettes des finances* (tax centers), and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability in 20-km radius around each municipality. In column 6 of Panel B, we look at the 1886 log population excluding civil servants and their families (see Section 6.4). In column 8, we lose some observations due to municipal mergers and splits taking place after 1914.

Table A.11: Effects on the Periphery of Capitals: Municipalities in a 10-km radius

	Main Sample		Augmented Sample	
	Difference (1)	RI (2)	Difference (3)	RI (4)
A. Short term (before 1815)				
Cadastre by 1815	0.260	[0.066,0.472]	0.237	[0.014,0.334]
	(0.081)	{0.011}	(0.059)	{0.033}
	{0.01}		{0.00}	
Conscripts 1802-1815	-0.123	[-0.245,0.030]	-0.077	[-0.184,0.030]
	(0.047)	{0.107}	(0.053)	{0.142}
	{0.04}		{0.17}	
B. Medium term (before 1850)				
Business tax per plant	0.020	[-0.395,0.486]	-0.090	[-0.491,0.227]
	(0.155)	{0.917}	(0.173)	{0.517}
	{0.90}		{0.62}	
Industrial establishments, 1839	-0.032	[-0.103,0.067]	-0.065	[-0.206,0.030]
	(0.036)	{0.622}	(0.060)	{0.238}
	{0.40}		{0.32}	
Banks, 1851	0.000	[0.000,0.000]	-0.001	[-0.003,0.001]
	(0.000)	{0.384}	(0.001)	{0.505}
	{0.10}		{0.41}	
Patents registered by 1850	0.024	[-0.017,0.078]	0.006	[-0.063,0.039]
	(0.025)	{0.272}	(0.029)	{0.903}
	{0.38}		{0.88}	
C. Long term (before 1914)				
Welfare beneficiaries, 1871	0.001	[-0.451,0.240]	0.093	[-0.303,0.484]
	(0.160)	{0.543}	(0.183)	{0.646}
	{0.99}		{0.65}	
Train station, 1870	-0.002	[-0.033,0.046]	0.010	[-0.027,0.033]
	(0.018)	{0.740}	(0.015)	{0.827}
	{0.91}		{0.49}	
Banks, 1910	-0.016	[-0.019,0.001]	-0.007	[-0.014,0.000]
	(0.012)	{0.099}	(0.006)	{0.068}
	{0.24}		{0.22}	
Patents registered by 1900	-0.002	[-0.079,0.117]	0.114	[-0.012,0.164]
	(0.033)	{0.693}	(0.056)	{0.082}
	{0.96}		{0.10}	
Log population in 1911	-0.018	[-0.116,0.125]	0.091	[-0.065,0.189]
	(0.063)	{0.965}	(0.071)	{0.384}
	{0.79}		{0.34}	
D. Very long term				
Log population in 1999	0.349	[0.113,0.749]	0.538	[0.257,0.786]
	(0.145)	{0.012}	(0.127)	{0.000}
	{0.08}		{0.00}	

Notes: This table compares endline outcomes between municipalities located in the periphery of capitals and municipalities located in the periphery of other candidate cities. The sample is composed of all the municipalities within a 10-km radius of candidate cities (instead of 20km in the baseline estimation), excluding the candidates themselves. Columns 1 and 3 report estimates from equation (2). Standard errors clustered by department are reported in parentheses and wild-bootstrap p-values are reported in curly brackets. All specifications control for area and area squared, altitude, latitude and longitude), log population in 1793 and 1800, four dummy variables indicating the presence of bishoprics, bailiwicks, tax centers, and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability. Columns 2 and 4 report the 95% randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in columns 1 and 3, obtained after 10,000 permutations of the treatment.

Table A.12: Effects on the Periphery of Capitals: Municipalities in a 30-km radius

	Main Sample		Augmented Sample	
	Difference	RI	Difference	RI
	(1)	(2)	(3)	(4)
Log market access (low θ)	-0.096	[-0.260,0.054]	-0.108	[-0.222,0.014]
	(0.064)	{0.148}	(0.055)	{0.075}
	{0.19}		{0.10}	
Log market access (high θ)	-0.213	[-0.639,0.244]	-0.206	-0.571,0.146]
	(0.191)	{0.324}	(0.166)	{0.209}
	{0.32}		{0.27}	
Log urban potential	-0.004	[-0.023,0.019]	0.000	-0.015, 0.032]
	(0.007)	{0.764}	(0.007)	{0.448}
	{0.56}		{0.98}	
Log population in 1793	0.059	[-0.050,0.141]	0.042	-0.048,0.109]
	(0.050)	{0.299}	(0.041)	{0.424}
	{0.31}		{0.34}	
Population growth, 1793-1800	-0.006	[-0.029,0.022]	-0.005	-0.023,0.018]
	(0.011)	{0.752}	(0.010)	{0.837}
	{0.65}		{0.63}	
Wheat suitability (GAEZ)	-0.423	[-0.768, 0.120]	-0.225	-0.521,0.177]
	(0.178)	{0.162}	(0.161)	{0.343}
	{0.04}		{0.21}	
Caloric yield	-0.013	[-0.053,0.012]	-0.025	-0.050,0.023]
	(0.017)	{0.214}	(0.019)	{0.470}
	{0.47}		{0.24}	
Old functions	-0.003	[-0.011,0.002]	0.003	-0.007,0.009]
	(0.003)	{0.129}	(0.004)	{0.890}
	{0.29}		{0.54}	
Distance to bishopric	0.169	[-0.144,0.473]	0.202	-0.082,0.439]
	(0.113)	{0.269}	(0.098)	{0.176}
	{0.18}		{0.06}	
Distance to bailiwick	0.068	[-0.092, 0.288]	-.005	-0.173,0.174]
	(0.067)	{0.304}	(0.072)	{0.950}
	{0.34}		{0.95}	
Distance to tax center	-0.051	[-0.222,0.089]	-.041	-0.181,0.081]
	(0.063)	{0.457}	(0.058)	{0.447}
	{0.45}		{0.49}	
Distance to admin center	0.040	[-0.081,0.221]	0.01	-0.081,0.142]
	(0.057)	{0.321}	(0.049)	{0.517}
	{0.52}		{0.85}	

Notes: This table compares endline outcomes between municipalities located in the periphery of capitals and municipalities located in the periphery of other candidate cities. The sample is composed of all the municipalities within a 30-km radius of candidate cities (instead of 20km in the baseline estimation), excluding the candidates themselves. Columns 1 and 3 report estimates from equation (2). Standard errors clustered by department are reported in parentheses and wild-bootstrap p-values are reported in curly brackets. All specifications control for area and area squared, altitude, latitude and longitude), log population in 1793 and 1800, four dummy variables indicating the presence of bishoprics, bailiwicks, tax centers, and *subdélégations*, distance to the department centroid, pre-reform market access, and wheat suitability. Columns 2 and 4 report the 95% randomization confidence interval from Young (2022) and (in curly brackets) the randomization inference p-value testing the significance of the studentized treatment effect reported in columns 1 and 3, obtained after 10,000 permutations of the treatment.

B The Creation of Artificial Departments and the Choice of Capitals

1. Aisne

The Decree specified that local delegates would gather in the neutral town of Chauny to decide which one of two cities, **Laon** or **Soissons**, would become the capital of the new Aisne department. Aisne was a new artificial entity covering parts of three distinct provinces: Champagne, Ile-de-France, and Picardie. The largest cities in the department in 1793 were Saint-Quentin (10,800 inhabitants), Soissons (7,675), Laon (7,500), and Château-Thierry (4,080). In May 1790, Laon defeated Soissons in a 411 to 37 vote to become the new department capital. Most of the delegates from Soissons had withdrawn from the vote to denounce insults made against the grain merchants from Soissons (Margadant, 1992, p. 264).

2. Ardèche

The construction of the department was tumultuous, as described in (Masson, 1984, p. 203). The initial plan was to merge parts of two territories: the upper part of the Vivarais and part of an area called Velay. In fact, the original name given to the department was *"du Velai et du Vivarais."* The 26 February 1790 Decree established a rotation across five cities: **Annonay**, Tournon (**Tournon-sur-Rhône**), **Aubenas**, **Privas**, and Lebourg (**Bourg-Saint-Andéol**). The city of Viviers, another important local town that hosted a bishopric and a tax center, was not included in the rotation. The three largest cities in 1793 were Annonay (5,800 inhabitants), Bourg-Saint-Andéol (3,598), and Tournon-sur-Rhône (3,300). Historical sources indicate that the first departmental assembly took place in Privas but the rotation was never actually implemented, leaving Privas as the *de facto* capital (Masson, 1984).

3. Ardennes

The Decree established that the first assembly would be held in Mézières and that the representatives would then choose where to position the capital, without specifying a list of candidates. Masson (1984) provides a credible list: "the relatively heterogeneous composition of this department meant that no city was seen as having an advantage over the others: **Charleville**, **Mézières**, **Sedan** and **Rethel** made claims to the *chef-lieux*." On 22 April 1790, following an agreement between Mézières and Charleville, 307 out of the 396 representatives voted in favor of Mézières, with the representatives from Sedan and Rethel abstaining in protest. The choice was confirmed by Decree on 7 May 1790. Charleville and Mézières, two cities sitting on opposite sides of the Meuse river (which marked the border of the French kingdom in the Middle Ages), subsequently merged to become a single city in 1966.

4. Ariège

The boundaries of the department of Ariège were hard to define because the entire area was affected by the outcome of negotiations around the limits of the department of Toulouse. Toulouse, a major city under the Ancien Régime, did not accept to simply become a department capital and attempted to create a larger department that would also include, among other areas, the county of Foix. This plan did not

succeed, but this uncertainty led the Assembly to establish a rotation across three cities: **Foix**, **Saint-Girons**, and **Pamiers**. Foix eventually became the department capital instead of Pamiers, even though Pamiers was a more important urban center on the eve of the Revolution and continued to lobby for the capital status in the ensuing years (Margadant, 1992, p. 274).

5. Aveyron

The department of Aveyron was partly created out of the old territory of Rouergue and the district of Mur-de-Barrez; the allocation of the latter was particularly contentious as the territory was also claimed by Cantal (Masson, 1984). Margadant (1992) describes how deputies from **Villefranche-de-Rouergue** and **Rodez** rested their claims to the capital, representatives from Villefranche arguing that it had better soil conditions and population density, while those from Rodez argued it was more centrally located.

6. Cantal

The royal province of Auvergne was divided into Haute-Auvergne (later renamed Cantal) and Basse-Auvergne, which became the Puy-de-Dôme. While the Bassse-Auvergne contained the major city of Clermont-Ferrand, several cities could make legitimate claims for the capital in Cantal. The Decree established a rotation between the towns of **Aurillac** and **Saint-Flour**. Both candidate cities hosted a bailiwick, a tax center, and a *subdélégation* in 1790, but only Saint-Flour had a bishopric. On the other hand, Aurillac was more populated than Saint-Flour in 1793 (10,470 inhabitants as opposed to 5,282 in Saint-Flour). Historical sources document numerous grievances about the accessibility of both cities, which are locataed on opposite sides of the department (Archives Départementales du Cantal, 2021). The town of Vic-sur-Sère tried to capitalize on this uncertainty and used its more central location to lobby for the capital status, in vain. The first round of the rotation was given to Aurillac, which subsequently refused to alternate functions with Saint-Flour. However, this rotation was the only one to formally continue after the September 1791 abolition decree, which made an exception for Cantal. The rotation was finally abolished in 1794, and Aurillac was chosen as the capital (Masson, 1984, pp. 212, 292).

7. Charente-Inférieure

While according to (Masson, 1984, p. 223), the Committee was hoping that the three former provinces of Aunis (with the city of La Rochelle), Saintonge (city of Saintes) and Angoumois (city of Angoulême) would agree on the limits of new departements, all three cities insisted on preserving their old limits. However, only two new departments could realistically be created in this region. Eventually, the Charente-Inférieure was created merging parts of Aunis and Saintonge—the department was orginally named *"de Saintonge et d'Aunis."* The Decree then established a rotation across three cities: **La Rochelle**, **Saint-Jean-d'Angély**, and **Saintes**. Saintes received the first round of the rotation despite fierce opposition from La Rochelle's delegates (Masson, 1984, p. 223). This city then formally became the department capital throughout the revolutionary period and was again confirmed as the capital by Napoléon in 1800.

The capital was subsequently relocated to La Rochelle in 1810, although the department's main tribunal remained in Saintes. The department was also a hotbed of civil violence during the revolutionary period.

8. Deux-Sèvres

The original plan was to divide the old province of Poitou, whose capital was the major city of Poitiers, into two departments called Haut-Poitou and Bas-Poitou. Eventually, the department of Deux-Sèvres was squeezed in between the two and the Decree established a rotation between **Niort**, Saint-Maixent (**Saint-Maixent-l'École**), and **Parthenay**. Margadant (1992, p. 269) documents that heated debates about the choice of the capital continued after the establishment of the rotation: "Parthenay, which enjoyed the advantage of perfect centrality, opposed an alternate [rotation] in the hope of becoming the permanent seat; Saint-Maixent, fearing this ambition, voted the alternate; and Niort abstained. That night, however, delegates from Parthenay and Saint-Maixent joined forces (...). They agreed to eliminate Niort from the alternate and divide the spoils among themselves: Parthenay and Saint-Maixent would rotate the administration (...) Niort would be left with the college." However, delegates from Niort got wind of this alliance, withdrew from local deliberations, and successfully lobbied the National Assembly to officially become the capital in September 1790 (Margadant, 1992, p. 270). Saint-Maixent was promised the tribunal as compensation, but this promise was not kept (Masson, 1984, p. 223).

9. Dordogne

The Decree established a rotation between the towns of **Bergerac** (11,720 inhabitants in 1793), **Sarlat** (7,877), and **Périgueux** (9,898). This was deemed a good compromise solution for local towns in the old province of Périgord, which had feared being included in the same department as Bordeaux (Masson, 1984, p.229). In fact, Masson (1984) argues that the Bordelais and the Pyrénées were the regions of France where the creation of new departments was the most challenging due to strong local identities. The Committee had to cut across limits of old provinces. Périgueux officially became the department capital in September 1791 when the National Assembly abolished rotations.

10. Drôme

Together with Hautes-Alpes and Isère, Drôme was one of three departments carved out of the large province of Dauphiné. The 26 February 1790 Decree envisioned a rotation of administrative and functions and established that local delegates would gather in the neutral town of Chabeuil to decide which cities should be included in this rotation. Three candidate cities stood out: the two most populated towns of **Montélimar** and **Valence** and the more central town of **Crest**. On 28 May 1790, Valence defeated Montélimar and Valence in a three-way vote to become the capital (157-140-68).

11. Finistère

The department of Finistère was formed out of the westernmost part Brittany, gathering swathes of the *pays de Léon*, a principality founded in 937, and approximately half of the old Cornouaille region in its

southern part. The largest city in the department was Brest, a military port. A first vote inside the department on 14 December 1789 elected **Landerneau** to become the capital, but this was undone on 23 December by a second vote, in which **Quimper** was chosen. Local delegates were ultimately incapable of designating a capital but agreed to leave this choice to the Committee. A decision was eventually made on 20 August 1790 in favor of Landerneau, but once again, voices were then raised in favor of Quimper. Abbé Beradieu declared that *"the coast of Quimper is as poor as that of Landerneau is opulent"* and that not obtaining the status of capital would lead to Quimper's ruin. Quimper was eventually chosen as the capital.

12. Haute-Marne

The department of Haute-Marne was a telling example of an artificial department, aggregating pieces of four provinces (Champagne, Lorraine, Bourgogne, and Franche-Comté) in an attempt to reach an appropriate size for a department. The Decree allowed local voters to establish a rotation between the towns of **Chaumont** (5,448 inhabitants in 1793) and **Langres** (8,613). Both cities were important administrative centers in the Ancien Régime, but Langres also hosted a bishopric while Chaumont did not. Local delegates voted to establish the capital permanently in Chaumont, with a fraction of voters siding against Langres because it had refused to sell grain to neighboring towns in May 1790 (Margadant, 1992).

13. Haute-Saône

The department combined parts of the province of Franche-Comté and of the bailiwick of Amont. The Decree established a rotation between the cities of **Gray** (5,429 inhabitants in 1793) and **Vesoul** (5,303). Both cities hosted a bailiwick, a tax center, and a *subdélégation*. Gray was a more important commercial hub while Vesoul used its more central position to lobby for the capital status. During the debates preceding the administrative reform, the Committee received anonymous letters denouncing the grain merchants of Gray for *"forestalling, speculation, and usury"'* (Margadant, 1992, p. 273). While historical sources disagree about the exact date when the capital was settled in Vesoul, the February 1800 law mentions Vesoul as the department capital.

14. Indre

The division of the province of Berry into two departments gave birth to the department of Indre (initial name Bas-Berry), to which were added small parts of Poitou, Marche, and Tourraine. The Decree allowed local voters to choose whether the capital should be located in **Châteauroux** (7,503 inhabitants in 1793) or rotate with the historical city of **Issoudun** (14,661). Despite being the smaller of the two cities, Châteauroux defeated Issoudun in a 262 to 47 vote, with its more central location being a factor (Margadant, 1992).

15. Jura

The department was created in the southern part of the province of Franche-Comté. This design came out of successful attempts to isolate the major city of Besançon into a separate department (department of Besançon, later renamed Doubs). The Decree established a rotation between the towns of **Lons-le-Saunier**, **Dôle**, Salins (**Salins-les-Bains**), and **Poligny**. Lons-le-Saunier became the capital in 1791 when rotations were abolished. The citizens from Dôle (the department's largest city in 1793) were among the fiercest opponents to the abolition of rotations, and continued to request the capital status in the ensuing years: in 1797, "petitioners from Dôle denounced [Lons-le-Saunier] as *a den of cyclops whose walls and pavements are still stained with the blood of innocent Republicans*" (Margadant, 1992, p. 273 and 283).

16. Landes

The Decree ordered the administration to temporarily settle in **Mont-de-Marsan** (4,950 inhabitants in 1793), but allowed local voters to establish a rotation and required that the department's tribunal would be based in **Dax** (4,390). A fierce rivalry opposed both cities, to the extent that they were initially reluctant to be associated in the same department (Masson, 1984, p. 230). Dax had at some point considered forming an alliance with Bayonne to form a common department. Mont-de-Marsan eventually became the department capital after the abolition of rotations.

17. Lozère

The limits of the department correspond quite closely to that of the bishopric of Gévaudan, a part of the old province of Languedoc. The Decree initially established a rotation between the Catholic city of **Mende** and the predominantly Protestant town of **Marvéjols**, which was the capital of Gévaudan. Mende eventually became the capital.

18. Manche

The predominantly rural department of Manche was formed out of a subset of the Normandy province, corresponding to an area known as the Cotentin peninsula and gathering the two bishoprics of Avranches and Coutances. As with Finistère, the department's largest city was a major port (Cherbourg). For the choice of capital, Masson (1984) describes the rivalry between **Coutances** and **Saint-Lô**, the department's second- and fourth-largest city as of 1793, respectively. During a meeting held among the deputies of the department held on 18 December 1789, both towns received the same number of votes. Coutances was subsequently chosen in a second vote on 23 December, and this decision was endorsed by the Constituent Assembly (temporarily) in March 1790 and (definitively) in July 1790. However, the National Convention went back on this choice on 11 October 1795, in favor of Saint-Lô. Coutances subsequently continued to claim the capital status until at least 1816, when local delegates voted against the transfer of the capital from Saint-Lô to Coutances.

19. Meuse

The department was carved out of the western part of the old province of Lorraine. The Decree established a rotation every four years between **Saint-Mihiel** (4,510 inhabitants in 1793) and **Bar-le-Duc** (9,111). Both cities hosted a bailiwick, a tax center, and a *subdélégation*. Bar-le-Duc was additionally the hometown of Pierre-François Gossin, a prominent revolutionary who was the rapporteur of the September 1791 decree abolishing rotations (he was subsequently guillotined in July 1794). The historical city of Verdun, which hosted the department's only bishopric in 1790, was not included in the rotation likely as a result of Gossin's lobbying efforts. Bar-le-Duc eventually became the department capital but Saint-Mihiel retained the tribunal (Masson, 1984, p. 199).

20. Oise

The department of Oise assembled the northern part of the généralité of Paris as well as territories from the généralités of Amiens, Soissons and Rouen. The Decree established that the first assembly would be held in Beauvais and that it could decide, during the course of the session, the location of the next assemblies if it deemed it should no longer be held in Beauvais. An explicit list of alternative cities was thus not provided. The local assembly eventually proposed an original solution, to organize a rotation between **Beauvais** and **Compiègne**. This decision was ratified by the National Assembly on 16 November 1790. Eventually Beauvais became the capital.

21. Saône-et-Loire

The borders of the department were an important concern for the Committee, with the discussions centering in particular on whether the city of Autun should be included or not. Regarding the capital, the Decree stated that the very first assembly would be held in Mâcon and that the representatives would then meet in a district capital other than **Mâcon** and **Chalon** to decide on where the next assemblies would be held. Chalon had the advantage of centrality while Mâcon was slightly more populated; eventually Mâcon was chosen as the capital.

22. Seine-et-Marne

The department covered parts of the southeastern part of the généralité of Paris. The Decree established that the very first assembly would be held in Melun and that the representatives would then decide where the next assemblies would be held, without specifying a list. Masson (1984) states that the rivalry was limited to **Melun** (5,500 inhabitants in 1793) and **Meaux** (6,860), omitting the other important towns of Fontainebleau and Provins. This rivalry was resolved by a vote on 24 May 1790 when Melun was chosen by 259 votes in favor and 231 votes against.

23. Tarn

The department gathered the old bishoprics of Albi, Castres and Lavaur. The Decree established a rotation between the cities of **Albi** (11,176 inhabitants in 1793) and **Castres** (12,511), whose rivalry dated back centuries (Masson, 1984, p. 206). After the abolition of rotations, Castres was formally the department capital. The Castres representative in the National Assembly, a protestant pastor named Alba Lasource, opposed the deportation of Catholic priests and was subsequently guillotined in October 1793. Suspected of lacking enthusiasm for the Revolution, Castres was eventually stripped of its status and Albi became the department capital in 1797.

24. Var

The Decree established a rotation among all the district seats in the department, with several viable candidate cities presenting different advantages. Margadant (1992, p. 271) provides a detailed summary: "**Toulon**, a naval port of 26,000 inhabitants that expended more government revenues in a year than the interior of Provence in a decade argued that rotation would violate contemporary customs ... **Grasse** boasted of a population of 12,000, which made it the second-largest town of the Var, and its royal *sénéchaussée* [bailiwick] and bishopric had just been as important as the comparable establishments of Toulon in the old regime ... **Draguignan** was located near the geometrical center of the department, but **Brignoles** was closer to the most densely populated area around Toulon. While delegates from Draguignan used the argument of centrality to seek the provisional headquarters of the department, leaving open the question of permanency or rotation, delegates from Brignoles joined with Toulon in voting against the alternate, but only so they could claim the permanent seat for themselves. The contradictory tactics of these several towns resulted in a statemate (...)." Following a proposal by Pierre-François Gossin, the National Assembly settled in favor of Toulon in September 1790, but the capital was subsequently moved to first Grasse, then Brignoles, then finally Draguignan (Margadant, 1992, p. 274). Toulon allegedly lost its claim on the capital status in late 1793 when a monarchist faction allowed British forces to enter the city. The city was taken back by the revolutionaries in Napoléon's first major military success.

25. Vosges

The department was created in the southern part of the old province of Lorraine with the addition of some parts of Champagne and Franche-Comté. The Decree specified that local delegates would select the department capital among two candidate cities, **Épinal** (6,688 inhabitants in 1793) and **Mirecourt** (4,946), further stipulating that the city not chosen as capital would have to receive the tribunal. Both cities hosted a bailiwick, a tax center, and a *subdélégation*. On June 1, 1790, Épinal defeated Mirecourt in vote (311 vs. 127) to become the capital (Rothiot, 2000).

C Conceptual Framework: Proofs

We restate Proposition 1 below, before providing further intuition for these results and presenting the proof.

Proposition 1 In equilibrium,

1. in Period 1,

   1.a. taxes are strictly higher in city c ($\tau^*_{c,1} > \tau^*_{r,1}$),

   1.b. if the initial shock in coercive capacity for the capital is not too large, $C < \bar{C}$, city c has fewer local public goods ($G^*_{c,1} < G^*_{r,1}$), the private sector is less productive ($A_{c,1} < A_{r,1}$) and pays lower wages ($w^*_{c,1} < w^*_{r,1}$) in city c; and population migrates from city c to city r ($N^*_{c,1} < N^*_{r,1}$).

2. In Period 2,

   2.a. the gap in coercive capacity has grown ($lnC_{c,2} - lnC_{r,2} > lnC_{c,1} - lnC_{r,1}$),

   2.b. taxes are higher in city c ($\tau^*_{c,1} > \tau^*_{r,1}$),

   2.c. if $\beta_3 \leq \bar{\beta}_3$, more local public goods are provided in city c ($G_{c,2} > G_{r,2}$), the private sector is more productive in city c ($A_{c,2} > A_{r,2}$) pays higher wages ($w^*_{c,1} > w^*_{r,1}$) and population migrates to the capital ($N^*_{c,2} > N^*_{r,2}$).

In period 1, the government chooses the size and the allocation of the budget in both cities. We show in the proof below that the budget share allocated to coercive capacity is the same in city r and city c. The intuition is that the decision of allocating funds to coercive capacity amounts to a question of budget allocation across periods and is the same in both cities.

The budget allocation between coercive capacity and public goods is the same in both cities, but the size of the budget differs for two reasons. First, because it is easier for the government to recover resources from the capital to fund global public goods, the government sets a higher tax rate in c. Second, the disposable budget is higher in c since, for the same level of taxes, more resources are gathered due to the initial positive shock C in coercive capacity. These choices imply that the gap in coercive capacity grows between the two cities between period 1 and 2, as shown in Proposition 1 (2.a). In period 2, there is no investment in coercive capacity and the budget is spent on financing local and global public goods. Taxes are set higher in the capital to finance these global public goods, for the same reasons as above.

Proposition 1 shows how these choices impact local public goods and population. In period 1, the capital allocates a smaller share of the budget to local public goods. We show in the proof that $\mu_{c,1}\tau_{c,1} < \mu_{r,1}\tau_{r,1}$. However, how this translates into actual spending on local public goods depends on coercive capacity. Suppose for instance that the initial level of coercive capacity in city r is close to 0. Then there would be no spending on local public goods. As shown in result 1.b, if the initial shock in coercive capacity is not too large, city r has more local public goods than city c in period 1.

This has implications for population. Citizens decide where to live based on the maximum indirect utility they obtain in each location, taking into account current conditions. The solution to this discrete

choice problem determines the probability that a location is chosen. The relative size of the population in city j thus depends on the relative size of indirect utilities obtained in the two cities, $\frac{N_{j,1}}{N_1} = \frac{e^{V_{j,1}}}{e^{V_{c,1}}+e^{V_{r,1}}}$. Thus in period 1, citizens tend to move away from the capital because of the higher taxes and lower levels of local public goods (provided the initial shock C in coercive capacity is not too large). In period 2, taxes are still higher in the capital, but because of increased coercive capacity, citizens can enjoy higher levels of local public goods and higher firm productivity (provided β_3 is not too large).

Proof of Proposition 1

Period 2. At the start of period 2, coercive capacity is realized, resulting from the investments made in period 1. The indirect utility in city j is given by

$$\ln V_{j,2} = \gamma_1 \ln(Q_{j,2}) + \beta_2 \ln G_{j,2} + \beta_3 \ln \bar{G}_2.$$

Introducing the budget constraint: $Q_{j,2} = (1-\tau_{j,2})w_{j,2} = (1-\tau_{j,2})A(G_{j,2})^{\beta_1}$, we have:

$$\ln V_{j,2} = \gamma_1 \ln(1-\tau_{j,2}) + \gamma_1 \ln A + \gamma_1\beta_1 \ln G_{j,2} + \beta_2 \ln G_{j,2} + \beta_3 \ln \bar{G}_2.$$

The objective of the central government in the second period can be expressed as follows:

$$\xi V_{c,2} + (1-\xi)V_{r,2} \quad = \quad \gamma_1 \ln A + \beta_3 \ln \bar{G}_2 + \sum_j \xi_j \left[\gamma_1 \ln(1-\tau_{j,2}) + \tilde{\beta} \ln G_{j,2}\right],$$

where we use the notation $\tilde{\beta} = \beta_2 + \gamma_1\beta_1$, which captures the direct effect of local public goods on the utility of citizens and the indirect effect through the increased productivity of firms.

In the second period, there is no investment in coercive capacity, since this is the last period of the game, and the quantity of public goods is determined by $G_{j,2} = \mu_{j,2}T_{j,2}$ and $\bar{G}_2 = ((1-\mu_{c,2})T_{c,2})^{\alpha_c}((1-\mu_{c,2})T_{c,2})^{\alpha_r}$. We can thus rewrite the government's period 2 objective as:

$$\begin{aligned}\xi V_{c,2} + (1-\xi)V_{r,2} &= \gamma_1 \ln A + \sum_j \xi_j \left[\alpha_j\beta_3 \ln(1-\mu_{j,2}) + \alpha_j\beta_3 \ln T_{j,2}\right] \\ &+ \sum_j \xi_j \left[\gamma_1 \ln(1-\tau_{j,2}) + \tilde{\beta} \ln \mu_{j,2} + \tilde{\beta} \ln(T_{j,2})\right].\end{aligned}$$

Furthermore $T_{j,2}$ is given by

$$\ln(T_{j,2}) \quad = \quad \ln \tau_{j,2} + \ln C_{j,2} + \ln N_{j,2} + \ln A + \beta_1 \ln G_{j,2}.$$

Given that $G_{j,2} = \mu_j T_{j,2}$, we have:

$$\ln(T_{j,2}) \quad = \quad \frac{1}{1-\beta_1}\left[\ln \tau_{j,2} + \ln C_{j,2} + \ln N_{j,2} + \ln A + \beta_1 \ln \mu_{j,2}\right] \tag{C.1}$$

Replacing the expression (C.1), the objective function of the government can be expressed as

$$CST + \alpha_j\beta_3 \ln(1-\mu_{j,2}) + \beta_3 \frac{\beta_1}{1-\beta_1} \ln \mu_{j,2} + \xi_j \left[\tilde{\beta} \ln \mu_c + \tilde{\beta} \frac{\beta_1}{1-\beta_1} \ln \mu_{c,2} \right]$$

where CST is a term that does not depend on $\mu_{c,2}$. Note that coercive capacity $C_{j,2}$ and population $N_{j,2}$ are given at the start of period 2 and not affected by the choices of $\mu_{j,2}$ and $\tau_{j,2}$, for $j \in c, r$.

The first order conditions with respect to $\mu_{c,2}$, imply that the optimal choice $\mu^*_{c,2}$ is characterized by:

$$\mu^*_{c,2} = \frac{\xi_j \tilde{\beta} + \alpha_j \beta_3 \beta_1}{\xi \tilde{\beta} + \alpha_j \beta_3}.$$

Similarly, the objective function can be expressed as a function of $\tau_{j,2}$

$$CST + \alpha_j\beta_3 \frac{1}{1-\beta_1} \ln \tau_{c,2} + \xi_j \left(\gamma_1 \ln(1-\tau_{j,2}) + \tilde{\beta} \frac{1}{1-\beta_1} \ln \tau_{j,2} \right). \tag{C.2}$$

The First Order Conditions yield:

$$\tau^*_{j,2} = \frac{\Psi}{\xi_j \gamma_1 + \Psi},$$

where $\Psi = \alpha_j\beta_3 \frac{1}{1-\beta_1} + \xi\tilde{\beta} \frac{1}{1-\beta_1} = \frac{\alpha_j\beta_3 + \xi\tilde{\beta}}{1-\beta_1}$

Thus $\tau^*_{j,2}$ is increasing in α_j, which establishes result 2.b.

Period 1. By backwards induction we now solve for period 1 choices. In period 1, the central government maximizes

$$\xi V_{c,1} + (1-\xi) V_{r,1} + \delta \left[\xi V_{c,2} + (1-\xi) V_{r,2} \right]. \tag{C.3}$$

In the first period, city j invests a portion $\mu_{j,1}$ of resources in the local public good, a share $\nu_{j,1}$ in global public goods and the remaining share $1 - \mu_{j,1} - \nu_{j,1}$ in coercive capacity. We can thus rewrite the government's period 1 objective as:

$$\begin{aligned} \xi V_{c,1} + (1-\xi) V_{r,1} &= \gamma_1 \ln A + \sum_j \xi_j \left[\alpha_j\beta_3 \ln(\nu_{j,1}) + \alpha_j\beta_3 \ln T_{j,1} \right] \\ &+ \sum_j \xi_j \left[\gamma_1 \ln(1-\tau_{j,1}) + \tilde{\beta} \ln \mu_{j,1} + \tilde{\beta} \ln T_{j,1} \right] \end{aligned}$$

The choice of tax rates and the use of revenues in period 1 has implications for period 1 taxes that are used to fund an increase in coercive capacity. Taxes are given by

$$T_{j,1} = \tau_{j,1} C_{j,1} A (G_{j,1})^{\beta_1} N_{j,1}.$$

Given that $G_{j,1} = \mu_{j,1} T_{j,1}$, we have

$$T_{j,1} = \frac{1}{1-\beta_1} \left[\ln \tau_{j,1} + \ln C_{j,1} + \ln N_{j,1} + \ln A + \beta_1 \ln \mu_{j,1} \right].$$

Coercive capacity in period 2 is given by:

$$\begin{aligned} \ln C_{j,2} &= \ln(C_{j,1}) + \sigma \ln((1-\mu_{j,1}-\nu_{j,1})T_{j,1}) \\ &= \ln(C_{j,1}) + \sigma \ln(1-\mu_{j,1}-\nu_{j,1}) + \sigma \frac{1}{1-\beta_1} \left[\ln \tau_{j,1} + \ln C_{j,1} + \ln N_{j,1} + \ln A + \beta_1 \ln \mu_{j,1} \right]. \end{aligned}$$

Using these results, and the fact that in period 2, $\tau_{j,2}$ and $\mu_{j,2}$ do not depend on $\tau_{j,1}$, $\mu_{j,1}$ or $\nu_{j,1}$, we can reexpress the objective (C.3) keeping the terms that depend on $\mu_{j,1}$:

$$CST + \xi_j \tilde{\beta} \ln \mu_{j,1} + \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \frac{1}{1-\beta_1} \ln C_{j,2}$$

$$CST + \xi_j \tilde{\beta} \ln \mu_{j,1} + \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \frac{1}{1-\beta_1} \left(\sigma \ln(1-\mu_{j,1}-\nu_{j,1}) + \sigma \frac{\beta_1}{1-\beta_1} \ln \mu_{j,1} \right)$$

Keeping the terms that depend on $\nu_{j,1}$, the government's objective can be rewritten:

$$CST + \alpha_j \beta_3 \ln \nu_{j,1} + \delta \left(\alpha_j \beta_3 + \xi \tilde{\beta} \right) \frac{1}{1-\beta_1} \ln C_{j,2}$$

$$CST + \alpha_j \beta_3 \ln \nu_{j,1} + \delta \left(\alpha_j \beta_3 + \xi \tilde{\beta} \right) \frac{1}{1-\beta_1} \left(\sigma \ln(1-\mu_{j,1}-\nu_{j,1}) \right)$$

The first order conditions for these two problems yield

$$\frac{\Phi_\mu}{\mu_{j,1}} = \frac{\Lambda}{1-\mu_{j,1}-\nu_{j,1}} \; ; \; \frac{\alpha_j \beta_3}{\nu_{j,1}} = \frac{\Lambda}{1-\mu_{j,1}-\nu_{j,1}},$$

with $\Phi_\mu = \xi_j \tilde{\beta} + \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \frac{1}{1-\beta_1} \left(\sigma \frac{\beta_1}{1-\beta_1} \right)$ and $\Lambda = \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \frac{\sigma}{1-\beta_1}$
Thus

$$\mu_{j,1} = \frac{\Phi_\mu}{\Lambda + \Phi_\mu + \alpha_j \beta_3} \; ; \; \nu_{j,1} = \frac{\alpha_j \beta_3}{\Lambda + \Phi_\mu + \alpha_j \beta_3}$$

Similarly, for taxes in c, the objective can be expressed as

$$CST + \xi_j \gamma_1 \ln(1-\tau_{j,1}) + \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \frac{1}{1-\beta_1} \ln C_{j,2}$$

$$CST + \xi_j \gamma_1 \ln(1-\tau_{j,1}) + \delta \left(\alpha_j \beta_3 + \xi_j \tilde{\beta} \right) \left(\frac{1}{1-\beta_1} \right)^2 \left(\sigma \ln(\tau_{j,1}) \right)$$

Taking first order conditions, we have:

$$\tau_{j,1}^{*} = \frac{\delta\sigma\left(\alpha_j\beta_3 + \xi_j\tilde{\beta}\right)}{\delta\sigma\left(\alpha_j\beta_3 + \xi_j\tilde{\beta}\right) + \xi_j\gamma_1(1-\beta_1)^2}$$

Thus $\tau_{j,1}^{*}$ increases in α_j, implying that $\tau_{c,1}^{*} > \tau_{r,1}^{*}$ This establishes result 1.a.

We compare the values in the rotation city and in the capital

We have

$$\mu_{j,1}^{*} = \frac{\xi_j\tilde{\beta}\left[(1-\beta_1)^2 + \delta\sigma\beta_1\right] + \delta\sigma\alpha_j\beta_3\beta_1}{\left(\alpha_j\beta_3 + \xi_j\tilde{\beta}\right)\left[(1-\beta_1)^2 + \delta\sigma\right]}.$$

Since $\mu_{j,1}^{*}$ is decreasing in α_j, we have:

$$\mu_{r,1}^{*} \geq \mu_{c,1}^{*}.$$

Furthermore we have

$$\begin{aligned}
\mu_{j,1}^{*} + \nu_{j,1}^{*} &= \frac{\xi_j\tilde{\beta}\left[(1-\beta_1)^2 + \delta\sigma\beta_1\right] + \delta\sigma\alpha_j\beta_3\beta_1 + \alpha_j\beta_3(1-\beta_1)^2}{\left(\alpha_j\beta_3 + \xi_j\tilde{\beta}\right)\left[(1-\beta_1)^2 + \delta\sigma\right]} \\
&= \frac{\left(\xi_j\tilde{\beta} + \alpha_j\beta_3\right)\left((1-\beta_1)^2 + \delta\sigma\beta_1\right)}{\left(\xi_j\tilde{\beta} + \alpha_j\beta_3\right)\left((1-\beta_1)^2 + \delta\sigma\right)} = \frac{(1-\beta_1)^2 + \delta\sigma\beta_1}{(1-\beta_1)^2 + \delta\sigma}
\end{aligned}$$

Overall this implies that both cities assign the same share of their budget to building coercive capacity versus current spending. Given that tax rates are higher in city c, and that coercive capacity is initially higher, the gap in coercive capacity grows. We have:

$$\ln C_{j,2} = \ln(C_{j,1}) + \sigma\ln(1-\mu_{j,1}-\nu_{j,1}) + \sigma\frac{1}{1-\beta_1}\left[\ln\tau_{j,1} + \ln C_{j,1} + \ln N_{j,1} + \ln A + \beta_1\ln\mu_{j,1}\right],$$

so that

$$\begin{aligned}
\ln C_{c,2} - \ln C_{r,2} &= \ln C_{c,1} - \ln C_{r,1} + \sigma\left(\ln(1-\mu_{c,1}-\nu_{c,1}) - \ln(1-\mu_{r,1}-\nu_{r,1})\right) \\
&+ \sigma\frac{1}{1-\beta_1}\left[\ln\tau_{c,1} - \tau_{r,1}\right] + \sigma\frac{1}{1-\beta_1}\left[\ln C_{c,1} - C_{r,1}\right] \\
&+ \sigma\frac{1}{1-\beta_1}\beta_1\left[\ln\mu_{c,1} - \ln\mu_{r,1}\right] \\
&> \ln C_{c,1} - \ln C_{r,1}.
\end{aligned}$$

This proves result 2.a.

Population. Citizens decide where to live based on the maximum indirect utility that they obtain in each location given their individual idiosyncratic taste shock, taking into account current conditions. The solution to this discrete choice problem determines the probability that a location is chosen by each

worker. We have $\frac{N_{j,1}}{N_j} = \frac{e^{V_{j,1}}}{e^{V_{c,1}}+e^{V_{r,1}}}$, so that the relative size of the two cities can be expressed as:

$$\ln N_{c,1} - \ln N_{r,1} = \gamma_1 \left(\ln(1-\tau_{c,1}) - \ln(1-\tau_{r,1})\right) + \tilde{\beta}\left(\ln(\mu_{c,1}T_{c,1}) - \ln(\mu_{r,1}T_{r,1})\right).$$

$\mu_{c,1}$ and $\mu_{r,1}$ are independent of C, the initial shock in coercive capacity, while $T_{c,1}$ is an increasing function of C. Therefore there exists $\bar{C}$, such that $\mu_{c,1}T_{c,1} < \mu_{r,1}T_{r,1}$ if and only if $C \leq \bar{C}$, i.e fewer local public goods are produced in city c, and as a consequence $A_{c,1} < A_{r,1}$. This also implies that if $C \leq \bar{C}$, $lnN_{c,1} - lnN_{r,1} < 0$, as stated in result 1.b.

In the second period, the relative size is given by

$$\ln N_{c,2} - \ln N_{r,2} = \gamma_1 \left(\ln(1-\tau_{c,2}) - \ln(1-\tau_{r,2})\right) + \tilde{\beta}\left(\ln G_{c,2} - \ln G_{r,2}\right).$$

Using the expression for $G_{j,2}$, we obtain

$$\ln G_{c,2} - \ln G_{r,2} = \frac{1}{1-\beta_1}\left[\ln \mu_c + (\ln \tau_{c,2} - \ln \tau_{r,2}) + (\ln C_{c,2} - \ln C_{r,2}) + (\ln N_{c,2} - \ln N_{r,2})\right]$$

When $\beta_3 \to 0$, we can show that $\mu_c \to 1$, $\tau_{c,2} \to \tau_{r,2}$ and

$$\ln G_{c,2} - \ln G_{r,2} \to \frac{1}{1-\beta_1}\left(\ln C_{c,2} - \ln C_{r,2}\right) > 0$$

which implies that

$$\ln N_{c,2} - \ln N_{r,2} > 0$$

and

$$\ln G_{c,2} - \ln G_{r,2} > 0$$

which proves result 2.c.

C.1 Comparative Statics

We can derive some comparative results on the main choice variables characterized in Proposition 1.

Proposition 2. *In equilibrium,*

1. *in Period 1,*
   - 1.a. *The shares of resources allocated to the funding of local public goods $\mu^*_{c,1}$ and $\mu^*_{r,1}$ decrease with δ and σ. In addition $\mu^*_{c,1}$ decreases with β_3.*
   - 1.b. *Taxes $\tau^*_{c,1}$ and $\tau^*_{r,1}$ are increasing in δ, σ and $\tilde{\beta}$ and decreasing in γ_1. In addition $\tau^*_{c,1}$ is increasing in β_3 and ξ.*
2. *In Period 2,*
   - 2.a. *The share of resources allocated to the funding of local public goods in the capital city $\mu^*_{c,1}$ increases with $\tilde{\beta}$ and ξ and decreases with β_3.*

2.b. Taxes $\tau^*_{c,2}$ and $\tau^*_{r,2}$ are decreasing in γ_1, increasing in $\tilde{\beta}$ and β_1. In addition $\tau^*_{c,2}$ is increasing in β_3 and ξ.

Proof: These comparative statics follow directly from taking derivatives of the expressions derived in the proof of Proposition 1 and listed below.

Period 1.

$$\mu^*_{j,1} = \frac{\xi_j\tilde{\beta}\left[(1-\beta_1)^2+\delta\sigma\beta_1\right]+\delta\sigma\alpha_j\beta_3\beta_1}{(\alpha_j\beta_3+\xi_j\tilde{\beta})\left[(1-\beta_1)^2+\delta\sigma\right]} \; ; \; \tau^*_{j,1} = \frac{\delta\sigma\left(\alpha_j\beta_3+\xi_j\tilde{\beta}\right)}{\delta\sigma\left(\alpha_j\beta_3+\xi_j\tilde{\beta}\right)+\xi_j\gamma_1(1-\beta_1)^2}$$

Period 2.

$$\mu^*_{j,2} = \frac{\xi_j\tilde{\beta}+\alpha_j\beta_3\beta_1}{\xi_j\tilde{\beta}+\alpha_j\beta_3} \; ; \; \tau^*_{j,2} = \frac{\alpha_j\beta_3+\xi_j\tilde{\beta}}{\alpha_j\beta_3+\xi_j\tilde{\beta}+\xi\gamma_1(1-\beta_1)}$$

D Conceptual Framework: Extensions

D.1 Rent Extraction

We modify the objective of the government to become

$$\theta\left[ln(R_1)+\delta ln(R_2)\right]+(1-\theta)\left[\xi V_{c,1}+(1-\xi)V_{r,1}+\delta\left[\xi V_{c,2}+(1-\xi)V_{r,2}\right]\right] \tag{D.1}$$

where R_i are the rents extracted in period i. We assume for simplification that the rents are extracted solely from the resources available in the capital city c.

Proposition 3. *In equilibrium, investments in coercive capacity in period 1 are increasing in θ, the weight the central government puts on private rents in its objective.*

Proof: we solve the model in the case where the taste for global public goods is set to zero. The problem is then exactly identical to the baseline model replacing parameter β_3 by $\frac{\theta}{1-\theta}$. We can show that the level of coercive capacity decreases in θ.

$$\ln C_{c,2} \;\; = \;\; \ln(C_{c,1})+\sigma\ln(1-\mu_{c,1}-\nu_{c,1})+\sigma\frac{1}{1-\beta_1}\left[\ln\tau_{c,1}+\ln C_{c,1}+\ln N_{c,1}+\ln A+\beta_1\ln\mu_{c,1}\right]$$

$(1-\mu_{c,1}-\nu_{c,1})$ and $\tau_{c,1}$ have been shown to increase in β_3 in the main model, and thus by equivalence increasing in θ.

D.2 Adding the Periphery

We extend the model to include, in addition to cities c and r, a city p located at a distance d of the capital city c. We assume that this city p can choose taxes and allocation of the budget, but cannot invest in coercive capacity. Furthermore we suppose that the coercive capacity in city p depends on coercive capacity in the capital and is decreasing in the distance to the capital. Specifically we assume that $C_{p,t} = \frac{C_{c,t}}{d}$

The central government assigns weights ξ_j, $j \in \{c, r, p\}$ to each city, so that its objective is to maximize

$$\sum_j \xi_j V_{j,1} + \delta \sum_j \xi_j V_{j,2}.$$

In this environment, we obtain the following result:

Proposition 4. *In equilibrium,*

1. *Local public good provision, productivity and wages in city p decrease in the distance to the capital city in both periods ($G_{p,t}, A_{p,t}, w_{p,t}$ decrease in d).*
2. *In city c, taxes in period 1 are increasing in the weight put on the periphery city (ξ_p) while the share of resources allocated to local public goods is increasing in ξ_p.*
3. *Choices and conditions in city r are independent of the weight put on the periphery city (ξ_p).*

Proof Period 2. The objective of the central government in the second period can be expressed as follows:

$$\sum_j \xi_j V_{j,2} \quad = \quad \gamma_1 \ln A + \beta_3 \ln \bar{G}_2 + \sum_j \xi_j \left[\gamma_1 \ln(1 - \tau_{j,2}) + \tilde{\beta} \ln G_{j,2} \right]$$

The solutions for city c and city r are identical to those of the baseline model. The problem for city p corresponds to the case where $\alpha_p = 0$, i.e. the periphery city does not contribute to the financing of the public good. Overall, this yields, for cities c and r

$$\mu^*_{j,2} = \frac{\xi_j \tilde{\beta} + \alpha_j \beta_3 \beta_1}{\xi_j \tilde{\beta} + \alpha_j \beta_3} \; ; \; \tau^*_{j,2} \quad = \quad \frac{\alpha_j \beta_3 + \xi_j \tilde{\beta}}{\alpha_j \beta_3 + \xi_j \tilde{\beta} + \xi \gamma_1 (1 - \beta_1)}$$

and for city p

$$\tau^*_{p,2} \quad = \quad \frac{\tilde{\beta}}{\tilde{\beta} + \gamma_1 (1 - \beta_1)}$$

Period 1. In period 1, city p can invest only in local public goods and there is no tradeoff between period 1 and 2 (no investment in coercive capacity), so that the problem of city p is identical to the problem in

the second period, so we have

$$\tau^*_{p,1} = \frac{\tilde{\beta}}{\gamma_1(1-\beta_1)+\tilde{\beta}}$$

Taxes and allocation of the budget are independent of the distance d from the capital city. However, the level of coercive capacity, for the same allocation and tax level, shifts the resources allocated to local public goods. Thus, as stated in result 1, the level of local public goods decreases with d and as a consequence, so does productivity and wages.

The problem for city r is unaffected compared to the proof of Proposition 1. On the contrary, city c when it invests in coercive capacity has to take into account the impact of its decision on city p in period 2. This modifies the problem as follows. The objective, keeping the terms that depend on $\mu_{c,1}$ becomes:

$$CST + \xi_c\tilde{\beta}\ln\mu_{c,1} + \delta\left(\alpha_c\beta_3 + (\xi_c+\xi_p)\tilde{\beta}\right)\frac{1}{1-\beta_1}\ln C_{r,2}$$
$$CST + \xi_c\tilde{\beta}\ln\mu_{c,1} + \delta\left(\alpha_c\beta_3 + (\xi_c+\xi_p)\tilde{\beta}\right)\frac{1}{1-\beta_1}\left(\sigma\ln(1-\mu_{c,1}-\nu_{c,1}) + \sigma\frac{\beta_1}{1-\beta_1}\ln\mu_{c,1}\right)$$

Keeping the terms that depend on $\nu_{c,1}$:

$$CST + \alpha_c\beta_3\ln\nu_{c,1} + \delta\left(\alpha_c\beta_3 + (\xi_c+\xi_p)\tilde{\beta}\right)\frac{1}{1-\beta_1}\ln C_{r,2}$$
$$CST + \alpha_c\beta_3\ln\nu_{c,1} + \delta\left(\alpha_c\beta_3 + (\xi_c+\xi_p)\tilde{\beta}\right)\frac{1}{1-\beta_1}\left(\sigma\ln(1-\mu_{c,1}-\nu_{c,1})\right)$$

Solving this system yields

$$\mu^*_{c,1} = \frac{\xi_c\tilde{\beta}(1-\beta_1)^2 + \delta\sigma\beta_1\left[\beta_3 + (\xi_c+\xi_p)\tilde{\beta}\right]}{(\beta_3+\xi_c\tilde{\beta})(1-\beta_1)^2 + \delta\sigma\left[\beta_3+(\xi_c+\xi_p)\tilde{\beta}\right]}$$
$$\tau^*_{c,1} = \frac{\delta\sigma\left(\beta_3+(\xi_c+\xi_p)\tilde{\beta}\right)}{\delta\sigma\left(\beta_3+(\xi_c+\xi_p)\tilde{\beta}\right)+\xi_c\gamma_1(1-\beta_1)^2}$$

This proves result 2. $\tau^*_{c,1}$ is increasing in ξ_p while $\mu^*_{c,1}$ is decreasing in ξ_p.