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Abstract

Despite the huge evidence documenting the adverse impact of extractive policies, we still lack a framework that identifies their determinants. Here, we lay out a two-region, two-social class model for thinking about this issue, and we exploit its implications to propose a novel account of the present-day economic divide between North and South of Italy. In contrast with the extant literature, we document that its opening is the result of the region-specific policies selected between 1861 and 1911 by the elite of the Kingdom of Sardinia, which annexed the rest of Italy in 1861. To elaborate, pre-unitary regional revenues from land property taxes per capita and railway diffusion are only driven by the contemporaneous region's farming productivity but not by the region's political relevance for the Kingdom of Sardinia's elite, whereas the opposite is true for the post-unitary ones. Moreover, tax-collection costs, the regional political relevance, and tax distortions shaped the growing North-South gap in post-unitary development, culture, and literacy. Crucially, our framework clarifies the incentives of dominating groups in other political and economic unions, e.g., post-Civil War USA and EU.
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1 Introduction

Despite the huge evidence documenting that extractive institutions and policies can limit the access to rents discouraging in turn innovation (North et al., 2009) and can undermine both property rights protection and contract enforcement (Acemoglu and Robinson, 2012), we still lack a framework that identifies their determinants. Here, we lay out a two-region, two-social class model for thinking about this issue, and we exploit its implications to propose a novel account of the present-day economic divide between North and South of Italy.[1] A well-known literature has traced back this gap to the diverse political trajectories followed by the two clusters during the Middle Ages (Putnam et al., 1993). In particular, the experience of more inclusive political institutions—i.e., the communes—would have helped northern Italy develop a stronger culture of cooperation easing the functioning of formal institutions (Guiso et al., 2016). Recent contributions however have raised several doubts on this slant. First, Boranbay and Guerriero (2016) show that the main driver of present-day culture in Europe has been the medieval need of sharing climate-driven consumption risks rather than past political institutions and that, up to the 17th century, the two parts of Italy did not display significant cultural differences. Second, a growing body of research reveals that, at Unification, the two groups also fared similarly well in terms of development (Ciccarelli and Fenoaltea, 2013). Inspired by this evidence, we document that the opening of the present-day divide is the result of the region-specific policies selected between 1861 and 1911 by the elite of the Kingdom of Sardinia, which annexed the rest of Italy in 1861. These penalized more the regions farther away from the capital of the foreign power most adverse to the Kingdom of Sardinia and thus less politically salient for its elite.

In the model, we consider two regions, which are first independent and then unified by a completely unforeseen shock similar to the one that originated the unitary state. The northern region represents the Kingdom of Sardinia, whereas the southern one stands for any of the other states annexed by the Kingdom of Italy in 1861. Each region is inhabited by a mass zero elite and a mass one citizenry, who consumes the untaxed supply of a private

[1] To elaborate, in 2008 southern Italy displayed a 9 percent lower share of respondents to the European Value Study reporting "tolerance and respect for other people" as important qualities children should be encouraged to learn and a 40 percent lower income per capita than northern Italy (Iuzzolino et al., 2011).

good and a region-specific public good whose production is financed through the tax revenues not appropriated by the elite. The private good technology is multiplicative in the region-specific productivity and the citizenry's investment in an input that can be seen as either a culture of cooperation or human capital. The first interpretation links directly our setup to the extant literature on the medieval determinants of the present-day divide. Under autarky, each elite selects her region's tax rate by maximizing the sum of rents net of linear tax-collection costs and the citizenry's welfare. Thus, equilibrium tax revenues fall with the marginal tax-collection costs and, because these are sizable, with the taxable value and thus the regional productivity. Under political union instead, both region-specific tax rates are selected by the northern elite, who is less concerned with the southern citizenry's welfare and appropriates from the South relatively more than the southern elite can under autarky. In particular, the extractive power of the northern elite is sufficiently strong to make taxation of the South profitable at the margin. These assumptions are consistent with the fact that, initially, the unitary state exercised a close control on the annexed regions and was dominated by the elite of the Kingdom of Sardinia, who in turn was chiefly interested in fortifying the northern industry. The mix between stronger extractive capacity and her limited concerns with the South leads the northern elite to raise from this region tax revenues rising with the South's productivity and falling with both the marginal tax-collection costs and the South's political relevance, i.e., the weight the northern elite attaches to the southern citizenry's welfare. In addition, extraction from the South is larger than under autarky, provided that the South's technology is not too backward, and pushes the southern citizenry to prefer private to public good production. Hence, the southern citizenry's investment and welfare rise with the factors limiting taxation, like the marginal tax-collection costs and the political relevance, and Unification damages the South when it is not sufficiently salient for the North.

To test these predictions, we analyze data for the 1801-1911 period from the thirteen present-day Italian regions incorporated by the Kingdom of Italy before World War I but not part of the Kingdom of Sardinia. Being the Italian economy essentially agrarian at the time, we proxy the extent of extraction with the land property taxation. In default of sufficient information on pre-unitary fiscal legislation and given the peculiar features of post-unitary taxation however, we cannot study directly tax rates, and thus we focus on

the revenues from land property taxes per capita. These taxes have been region-specific over the whole sample and, absent developed financial markets, dramatically shaped the landowners' capacity to invest in new farming technologies and the industry. Turning to the regional productivity, we rely upon the geographic drivers of the profitability of market-oriented farming, i.e., arboriculture and sericulture. Next, we use as inverse metrics of the marginal tax-collection costs a measure of fiscal capacity, i.e., the share of previous decade in which the state to which the region belonged partook in external wars. Finally, we propose as an inverse proxy for military saliency and in turn political relevance the distance of each region's main city from the capital of the foreign power most adverse to the House of Savoy.

Consistent with our model, pre-unitary land property tax revenues per capita are only explained by the contemporaneous region's farming productivity but not by the region's political relevance, whereas the opposite is true for the post-unitary ones. Moreover, tax-collection costs, the regional political relevance, and tax distortions shaped the growing North-South gap in post-unitary development, culture, and human capital. We gauge tax distortions with the difference between the land property tax revenues per capita observed in the region and those that would have prevailed without Unification and forecasted through pre-unitary estimates. This choice is justified by the inefficiency of post-unitary public good provision in the South as predicted by our model and confirmed by the historical evidence we discuss. Even if our proxies for the determinants of extraction are all driven by either geographic features independent of human effort or events outside the control of the elites selecting tax policies, our results could still be produced by unobserved heterogeneity. To evaluate this issue, we follow a two-step strategy. First, we control not only for fixed region effects, but also for energy endowment, population density, income inequality, wages, and medieval political institutions. Including these controls has little effect on our results. Second, we use insights from Altonji et al. (2005) to assess how much greater the influence of unobservables would need to be, relative to observables, to explain away the relationships we uncover in the data. We find that it would have to be on average about 16 times greater than the influence of observables. Given the high fit of our regressions, it is then unlikely that the estimates can be attributed to unobservables. Finally, to show that post-unitary tax distortions cannot be considered the acceptable price for the northern industrialization,

we document that the pre-unitary railway diffusion was mainly driven by the farming productivity, whereas the post-unitary one was only shaped by the region's political relevance.

Albeit a long literature has related the present-day divide to post-unitary policies (Daniele and Malanima, 2014), no other work has provided a framework clarifying how these policies solved the unitary government's trade-off between extraction-related losses—i.e., investment distortions, tax-collection costs, and military weakness—and rent-seeking gains.[2] In this respect, our paper contributes to the aforementioned literature contrasting "extractive" and "inclusive" institutions by endogenizing the extent of extraction in a setup sufficiently general to be applied to other crucial instances.[3] The post-Civil War gap between northern and southern US regions is a case in point contemporaneous to the natural historical experiment we focus on, whereas more recent examples are the German opposition to the post-2011 rescue packages demanded by Greece (Guiso et al., 2015) and the tensions between the Basque Country (northern Ireland) and the Spanish (UK) government (Abadie and Gardeazabal, 2003; Besley and Mueller, 2012). To confirm this point, we look at the post-Civil War US case, and we provide evidence that the growing divide between the Confederate states and the territories that sustained the Union was correlated with the differences in the tax burden imposed on them by the federal government, which was initially dominated by the ex-Union.

The paper proceeds as follows. In section 2, we review some key facts about 19th century Italy to motivate our model, which we illustrate in section 3. In section 4 then, we state the model empirical implications, which we test in section 5. Finally, we present our conclusions in section 6, and we gather both tables and figures in the appendix.

2 Italy Before and After the Unification: A Primer

Next, we describe the political and economic contexts of the Italian regions over the 1801-1911 period, detailing at the same time the main innovations in tax policies.

2.1 The Era of *Risorgimento*

The Congress of Vienna divided Italy in eight absolutists states: the northwestern King-

[2] By studying the determinants of regional tax policies and public spending, we also contribute to the literature on public goods, internal and external conflicts, and the size of nations (Alesina and Spolaore, 2005).

[3] Felice (2014) points at the extractive habits of the southern elite as main driver of the present-day divide. However, this mechanism is completely irrelevant to explain post-unitary outcomes (see section 5.4.1).

dom of Sardinia ruled by the Piedmontese House of Savoy; the northeastern Kingdom of Lombardy-Venetia under the direct control of Austria; the Grand Duchy of Tuscany and the Duchies of Modena and Parma, all in the hands of branches of the Austrian Habsburg dynasty; the Duchy of Lucca then absorbed by Tuscany in 1847; the Papal State; and the southern Kingdom of the Two Sicilies ruled by the Bourbons.[4] This division re-established the status quo preceding the Napoleonic conquests and served two key purposes. First, it deprived the Bourbons of any interest in waging war being their only neighbor the Pope, who in turn was constrained by his religious role. Second, it kept in check Austria and France by establishing the Kingdom of Sardinia as a buffer state between the two powers. Exactly this threat-based balance fed the ambitions of the House of Savoy who soon became the champion of the Italian liberals, who longed to establish a unitary state. Supported by urban workers and lower military ranks, the liberals organized a series of subversive acts in the wake of the unrests of 1820, 1830, and 1848. Crucially, even if none of them overthrew a pre-unitary regime, these turmoils forced the absolutist rulers to implement some of the liberal laws brought about by the Napoleonic armies and inspired by the French revolution.

This institutional discontinuity involved the whole peninsula but was particularly relevant for the southern population, who could finally see realized the reforms introduced during the French seizure, i.e., the privatization of one third of the clerical and common lands, initially implemented in 1792, and the end of the feudal system declared in 1806. The liberalization surge did not release the Italian peasants from their destitution but allowed a rising class of bourgeoisie to acquire part of the nester nobility's domains and prioritize in these estates market-oriented activities, like arboriculture and sericulture, over subsistence farming, i.e., wheat breeding (Pescosolido, 2011). Both enterprises were significantly more lucrative than wheat breeding,[5] but also more capital intensive. Silk is obtained from the fibers extracted from the cocoons of the larvae of the mulberry silkworm dissolved in boiling water. The fibers were spun through reels powered by watermills (Britannica, 2014). Such a need of water favored the concentration of sericulture in the irrigated Po valley. Over and above irrigation ditches assuring a continuous supply of water, citrus and olive trees

[4]Our historical account is based on Hearder (1983), Killinger (2002), Riall (2009), and Galasso (2011).
[5]They were about sixty times more profitable than subsistence farming (see Dimico et al., [2012]).

need several years before producing and a temperature above 4 Celsius degrees (Britannica, 2014). This last feature explains their almost exclusive diffusion in the South (Dimico et al., 2012). Farming productivity increased in both the sharecropping-based northern farms and the southern latifundia, which displayed a net technological primacy over the 19th century (Federico, 2007). By assuring training, job security, and credit line to their employees, the "latifondisti" indeed could invest in a more peaceful setting (Petrusewicz, 1996). This productivity gap was widened by the 1850s epidemic of Pebrine, which halved the silkworm population. Table 2 summarizes these regional differences using our proxies for farming productivity and differentiating the thirteen regions analyzed in our empirical exercise according to their political relevance for the Piedmontese elite, as inversely measured by the distance of each region's main city from the capital of the foreign power most adverse to the House of Savoy, i.e., *Distance-to-Enemies* (see for each variable sources and construction table 1). To illustrate, Veneto displays the lowest average value of *Distance-to-Enemies* being the only region bordering either Austria or France, and thus we treat it as the "high" political relevance cluster. Similarly, we label the other regions with below-average values of *Distance-to-Enemies*—i.e., Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, and Umbria—the "middle" political relevance group and the remainder—i.e., Apulia, Basilicata, Calabria, Campania, Lazio, and Sicily—the "low" political relevance group. We also refer to the latter as "South" and to the union of the former and the middle political relevance group as "North." As table 2 reveals, the South remained over the 19th century moderately inferior in the sericulture and wheat breeding sectors but greatly superior in the arboriculture one.

After two centuries and half of economic decline, the Italian population started to grow again doubling over the 1800-1860 period (Malanima, 2011). In absence of a proper industrial revolution however, the GDP per capita stagnated until the 1870s against a background of regional differences (Pescosolido, 2011). To illustrate, the South maintained a slight preponderance for all the pre-unitary period (see table 2). These differences however were negligible compared to the backwardness of Italy in comparison with the European powers. In 1861 indeed, 68 (only 3) percent of the active population was employed (worked exclusively) in the agricultural (industrial) sectors, and both the iron production and the number of spindles were less than 1 percent of the English levels (Pescosolido, 2011). The causes of this

gap were the scarcity of coal and the paucity of both human and real capital with the second aspect manifesting regional dissimilarities (Pescosolido, 2011). While indeed the northern credit markets were slowly becoming diversified with both small institutes—i.e., "casse di risparmio"—and medium-sized commercial banks, the southern ones were still dominated by the micro-credit institutions appeared from the 15th century on (Felice, 2014). In addition, the 1861 share of illiterates aged over six was significantly larger in the South (Svimez, 2011).

Differences in capital accumulation however mainly reflected dissimilarities in public policies (Dincecco et al., 2011). On the one hand, the 1848 defeat in the Austro-Sardinian War forced Carlo Alberto of Savoy to abdicate in favor of his son Vittorio Emanuele II, who upheld a liberal constitution to calm down the internal uprisings and gain support for his territorial ambitions. This reform allowed the rising liberal class to obtain investments in railway and other valued public goods, like literacy, and the king to levy the taxes necessary to finance military purposes. Similarly, Vienna tried and succeeded to avoid unrests by appeasing local elites but did so combining higher nonmilitary expenditures to artificially low tax rates. On the other hand instead, the fierce domestic unrests of 1820 and 1848 failed to produce in the Kingdom of Two Sicilies an enduring institutional reform but induced a sizable rise in military spending, which because of the population's aversion to any tax rise irreparably squeezed nonmilitary expenditures. A similar aversion to novel duties, together with less ferocious internal conflicts, kept both taxation and spending low in the Papal State and the northern Duchies. These regional asymmetries are clearly depicted in the upper-left and upper-right graphs in figure 1. While the former reports, in default of sufficient information on the tax rates,[6] the revenues from land property taxes in 1861 lire per capita, the latter displays the decennial change in the railway network per square km. Land property taxes, which constituted the largest direct tax and hit the rent estimated by one of the 22 existing cadastres,[7] remained up to the 1850s larger in the South, whereas investments in railway diffusion, which represented the largest nonmilitary expenditure, were trifle before 1840 and barely higher in the North at Unification. All in all, dissimilarities in fiscal capacity and public spending across pre-unitary states endowed the northern regions with a larger

[6]To the best of our knowledge, only information on the 1860 is available (see Parravicini, [1958]).

[7]Dating back to the early 18th century, they were based on either geometrical or descriptive data and directed at measuring the market value of either the land or its product (Parravicini, 1958).

human and real capital, but did not determine sizable differences in development.

2.2 Italian Unification and the Rise of the North-South Divide

Meanwhile, the power of the Kingdom of Sardinia's parliament relative to the king grew steadily. Its leader became count Camillo of Cavour, who was appointed prime minister in 1852. He realized that the Savoys could not fight Austria alone and, thus, sustained France in the Crimean War (1853-1856) to win the favor of Napoleon III. This attempt was such a success that the Kingdom of Sardinia and France first signed a secret pact against Austria and then defeated its military in Lombardy in 1859. This victory triggered insurrections in Tuscany, Giuseppe Garibaldi's conquest of the South, and the invasion of the Papal State. A unitary Kingdom of Italy was proclaimed on March 17th 1861. Over and above the conquest of the Venetian (1866) and Roman provinces (1870), the desire of getting the northern industry off the ground was the key objective of the first unitary executives (Pescosolido, 2011). Dominated by the Piedmontese elite, who provided before 1873 the 73 percent of the prime ministers and the 35 percent of the executive (see Corbetta and Piretti [2008] and the bottom-left graph in figure 1), these governments favored the northern industry while selecting both trade policy and public spending and the northern population when levying the taxes necessary to finance these investments and the mounting public debt.[8] This platform soon produced unplanned and remarkable consequences for the whole peninsula.

The 1861 introduction of the Piedmontese custom tariffs, among the lowest in Europe, decreased of 80 percent the average southern custom duty irreparably exposing the exports of olive oil and citrus to the end of the century fall in international prices (Pescosolido, 2011). To make things worse for the South, the 1887 trade policy reform strengthened only the protection of the North-based wheat breeding and production of iron, which in turn was booming thanks to the public subsidization of the Genoese steamboat producers and the exclusion by law of the Neapolitan firms from navigation (Pescosolido, 2011). Similar public procurement policies guided land reclamation with only 4 per cent of the relative spending invested in the South before World War I (Iuzzolino et al., 2011), harbor development (Picci, 2002), and railway diffusion. The last one is the most telling case. Despite being the item

[8] In 1861, the public debt amounted to the 40 percent of the total GDP (Pescosolido, 2011).

least preferred by the southern population, historically more at ease with maritime routes than with the grueling Appenine passages, it constituted the 67 (53) percent of the 1861-1881(1911) Italian public spending (Picci, 2002) and favored the northern regions. Liguria and Piedmont indeed enjoyed over the period an average 874 (457)—1861—lire railway spending per square km, which was 12 (3) times bigger than that received by Veneto and 18 (4) times higher than that gained by the other regions (see Ragioneria Generale dello Stato [1909] and upper-right graph in figure 2). More important, the real purpose of this effort "was more the military one of controlling the national territory, especially in the South, than favoring commerce [...]. Railway fares acted in many cases as customs duties, making it more economic for the South to export goods abroad by sea rather than try to sell [...] via railway" [Iuzzolino et al. 2011, p. 22]. Crucially, such an impressive infrastructural program was financed by highly unbalanced tax rises. After an initial phase in which a 10 percent surcharge was added to the pre-unitary tax rates, the 1864 reform fixed a target revenue to be raised—i.e., "contingente"—equal to the 1863 yield plus 20 millions—i.e., 125 millions—allocating it to nine fiscal districts resembling the pre-unitary states. The ex-Papal State took on the 10 percent of the *contingente*, the ex-Kingdom of Two Sicilies the 40 percent, and the rest of the Kingdom of Italy (ex-Kingdom of Sardinia) only 29 (21) percent.[9] To further weigh this burden down, between 1867 and 1868, two other 10 percent surcharges were added to the *contingente* creating the disparities between high and middle-low political relevance regions described in the upper-left graph in figure 1. In complaining about the oppressing nature of these policies, the Sicilian senator Antonino Paternò-Castello denounced that "the excessive amount of the land property tax [...] impacts mainly the small landowners, who find themselves greatly burdened and deprived of the means necessary to organize a rational farming" [Parravicini 1958, p. 163]. Eventually, the 1873 victory of the left-wing party, which finally gave voice to the South (see bottom-left graph in figure 1), together with the 1876 achievement of the balanced budget, opened the way to more egalitarian policies—i.e., "perequazione"—and, in particular, the 1888 removal of all surcharges and the craved cadastral reform, which equalized by 1922 the regional tax rates (Parravicini, 1958).

At that point however, the divergence of the two economies was irreversible (Nitti, 1993).

[9]From 1867 (1871) on, 3 (13) millions were levied on the new Venetian (Roman) district (Parravicini 1958).

The clothing, mechanical, and steel industries were wiped out from the South, while embryonic heavy equipment and manufacturing industries were established in the North (see table 2 and Iuzzolino et al., [2011]). More important, the impoverishment of the southern economy deteriorated the relationship between the government and the southern population, who experienced the Unification as a seizure. This unchained a series of clashes going under the name of "brigandage." Between 1861 and 1864, this civil war brought about 20,000 southern victims, imposed a de facto militarization of the area,[10] and opened the way to the massive emigration from the countryside (Felice, 2014). Accordingly, the 1890s ratio of emigrants to total population accelerated in the South surpassing by far that in North (Iuzzolino et al., 2011). Moreover, the population started to display a progressively weaker culture as prompted by the fall of the share of active population engaged in political, union, and religious activities (see figure 2), which constitutes an outcome-based measure of social capital and was initially higher in the South. Contrary to the conclusions of the extant literature indeed (Guiso et al., 2016), the present-day cultural advantage of the North does not predate the Unification. To see this, the leftmost graph in figure 2 shows the homogeneity between clusters in the cumulated discounted number of years of activity over the 1000-1600 period of Cistercian and Franciscan houses. Boranbay and Guerriero (2016) document that these monks met the population's demand for insurance against consumption shocks in exchange for the acceptance of a culture of cooperation and so, at the European level, there is a strong correlation between their expansion and present-day norms of respect and trust.

Later on, the fascist regime's aversion to internal migrations and its rush to arming, managed through investments in the northern heavy industry, have stretched even more the North-South gap (Iuzzolino et al., 2011), which has been only barely filled by the 1960s economic booms and state aids. Despite these more recent events however, it is clear that the present-day divide originated in the policies set by the first post-unitary governments.

3 Theory

Consider a territory divided in two regions $r \in \{N, S\}$, each inhabited by a mass zero elite and a mass one of equal citizens consuming a region-specific public good g_r and a

[10] In 1870, half of the Kingdom's army—120,000 units—policed the South (Felice, 2014).

private good, whose demand and supply are D_r and X_r. In the case of 19th century Italy, N represents the Kingdom of Sardinia and S stands for any of the other states annexed by the Kingdom of Italy in 1861. In each region r, the citizenry produces $X_r = A_r C_r$, where $A_r > 0$ is the region-specific productivity parameter and C_r labels an input provided by citizenry and, in particular, either his culture of cooperation or his human capital. The first interpretation links directly our setup to the extant literature on the medieval determinants of the present-day divide, and it is consistent with the huge evidence according to which a culture of cooperation is pivotal to curb transaction costs, expand market exchange, and facilitate the division of labor (Tabellini, 2010; Guerriero, 2016). In terms of our historical experiment, X_r is the product of a market-oriented farming activity requiring a progressively more sophisticated technology and higher division of labor, i.e., arboriculture and sericulture.

Timing.—The order of economic and policy choices is the following:

At time zero, the citizenry of region r linearly invests in C_r. When the input is culture, this assumption captures two fundamental insights of evolutionary psychology and Malthusian growth theories: a social group dictates to its members, via natural selection and cross-punishment, cultural norms maximizing its fitness (Barkow et al., 1992; Clark, 2007; Galor, 2011), and these norms are embraced by the group's members the faster the larger the culturally-driven reproductive advantage is (Andersen et al., 2016). Hence, it is reasonable to maintain that in the Malthusian environment discussed in section 2 a citizenry expecting larger returns from cooperation ends up with a larger culture C_r.

At time one and under autarky (political union), the elite of region r (N) selects the rate(s) t_r (t_N^U and t_S^U) at which the private good is then taxed. Under autarky (political union), each tax rate maximizes the regional (northern) elite's rent net of linear tax-collection costs plus the welfare of the region's citizenry (weighted by a parameter lower than one and increasing with the region's political relevance for the northern elite in the case of t_S^U).

At time two and under autarky (political union), the private good is produced, and the elite of region r (N) uses a share $\alpha < 1$ (α in the North and $\alpha^U < \alpha$ in the South) of the regional tax revenues to obtain with a linear technology g_r and pockets the rest. Next, the citizenry of region r consumes both g_r and the untaxed private good.

Discussion.—The northern elite's ability to seize all unitary rents captures the supremacy

of the Piedmontese elite over the first post-unitary governments. The inequality $\alpha^U < \alpha$ implies furthermore that the northern elite could extract from the southern population a rent larger than that possibly obtainable by the southern elite. This closely squares with the constraints on the pre-unitary rulers' extractive power imposed by the credible threat of unrests on the one hand and with the post-unitary occupation of the southern regions by the northern army on the other hand. Finally, the restriction on the weight the northern elite attaches to the southern citizenry's welfare captures one of the key stylized facts discussed in section 2: the first post-unitary governments privileged the regions closest to the most dangerous foreign enemies and thus most useful (dangerous) for defense purposes (in case of a treachery). As aforementioned, not only the industries operating in these regions were initially favored by the unitary state's choice of both trade policy and public spending, but the relative populations also gained the most from the 1870s reforms of the *contingente*.[11]

3.1 Autarky

Under autarky, the citizenry of region r selects C_r maximizing the objective function

$$\sqrt{D_r + \gamma g_r} - C_r = \sqrt{\left(1 - \hat{t}_r\right) X_r + \alpha\gamma\hat{t}_r X_r} - C_r = \sqrt{\tilde{t}_r A_r C_r} - C_r, \tag{1}$$

where hats label equilibrium quantities, $\tilde{t}_r \equiv 1 - \hat{t}_r\left(1 - \alpha\gamma\right)$, and γ gauges the citizenry's relative preferences for g_r *vis-a-vis* D_r. We hypothesize that $\alpha\gamma > 1$, and thus that the citizenry prefers public to private good production. This restriction reflects the urgency of public spending in railway diffusion (land reclamation and harbor development) felt by the northern (southern) bourgeoisie up against the backwardness of the local economy (Pescosolido, 2011).[12] The unique and global equilibrium levels of investment and consumption equal $\hat{C}_r = \tilde{t}_r \frac{A_r}{4}$. Therefore, $\hat{D}_r = \left(1 - \hat{t}_r\right) A_r \hat{C}_r$ and the citizenry's welfare is $V_r = \tilde{t}_r \frac{A_r}{4}$. Taking into account the citizenry's choice of C_r, the elite of region r selects a tax policy maximizing

$$\left(1 - \alpha - K\right) t_r A_r \hat{C}_r + V_r, \tag{2}$$

[11] Envisioning a fall in the quality of g_S under political union would not change the gist of the model.
[12] Allowing the level of public good to shape future investment is an important avenue for further research.

where the marginal tax-collection costs are such that $K > \max\left\{1-\alpha, \frac{\gamma-1}{\gamma}\right\}$. This last assumption is consistent with the limits to war waging imposed on the pre-unitary states (Kingdom of Italy) by the Congress of Vienna (Triple Alliance) and discussed in section 2 (5). The unique and global solution to problem (2) is $\hat{t}_r = \frac{1}{2A_r(K+\alpha-1)} - \frac{1}{2(\alpha\gamma-1)}$, which falls as K increases due to the larger taxation costs and rises with γ because of the larger sub-utility from public good consumption. In addition, $\hat{t}_r$ decreases with A_r since at the margin the social gains from taxation are fixed—i.e., $1-\alpha\gamma$, whereas the relative social costs net of rents are increasing with the regional productivity. Finally, $\hat{t}_r$ has an uncertain relationship with α, which decreases the elite's rents but augments the sub-utility from public good consumption. Thus, the equilibrium investment and welfare equal $\frac{A_r}{8} + \frac{\alpha\gamma-1}{8(K+\alpha-1)}$, which rises with A_r, γ, and α and falls with K, which is an inverse measure of the feasibility of public good production. Tax revenues $\hat{t}_r A_r \hat{C}_r = \frac{\alpha\gamma-1}{16(K+\alpha-1)^2} - \frac{A_r^2}{16(\alpha\gamma-1)}$ display behaviors similar to $\hat{t}_r$ and thus fall with A_r and K, rise with γ, and have an uncertain relationship with α.

3.2 Political Union

The northern elite devotes now to the production of the public good g_S only a share $\alpha^U < 1-K$ of tax revenues. Given our restrictions on K, $\alpha^U < 1-K < \frac{1}{\gamma}$. In words, we assume that under political union the extent of extraction from the South is sufficiently severe to make at the margin taxation profitable for the northern elite and, given the assumed limits to state capacity, to endogenously let the citizenry prefer private to public good production. Since the tax revenues not appropriated by the northern elite from region r finance g_r, the citizenry's problem is the same as in autarky and $\hat{C}_N^U = V_N^U = \tilde{t}_N^U \frac{A_N}{4} = \tilde{t}_N \frac{A_N}{4} = V_N = \hat{C}_N$, $\hat{C}_S^U = V_S^U = \tilde{t}_S^U \frac{A_S}{4}$, and $\tilde{t}_S^U \equiv 1 - \hat{t}_S^U\left(1-\alpha^U\gamma\right)$. The northern elite selects $\left\{t_N^U, t_S^U\right\}$ maximizing

$$\left(1-\alpha-K\right) t_N A_N \hat{C}_N^U + \left(1-\alpha^U-K\right) t_S A_S \hat{C}_S^U + V_N^U + \beta V_S^U, \tag{3}$$

where $\beta < 1$ is the weight attached to the southern citizenry's welfare and reflects his political relevance. Since there is no trade between regions, $\hat{t}_N^U = \hat{t}_N$, $\hat{t}_S^U = \frac{1}{2(1-\alpha^U\gamma)} - \frac{\beta}{2A_S(1-\alpha^U-K)}$, and $\hat{t}_S^U A_S \hat{C}_S^U = \frac{A_S^2}{16(1-\alpha^U\gamma)} - \frac{\beta^2\left(1-\alpha^U\gamma\right)}{16(1-\alpha^U-K)^2}$. Thus, the tax revenues raised in the South increase with both A_S and γ, decrease with K, and have again an uncertain relationship with α^U.

The first comparative statics is different from the equivalent one under autarky because now marginal rent-extraction benefits are higher than the marginal tax-collection costs, and thus an increase in regional productivity and so private good production calls for more extraction. Finally, $\hat{t}_S^U A_S \hat{C}_S^U$ fall with β and are larger than under autarky when A_S is not too small and $\beta \to 0$. As seen in section 2, over the 19th century the South kept a significant but not extreme technological primacy and displayed the most limited political relevance for the Piedmontese elite. Accordingly, the first post-unitary governments extracted from (imposed on) the southern regions above-average (the largest distortions in) tax revenues per capita, which were also larger than those raised by the Bourbons, as shown by the upper-left graph in figure 1 (3). The following proposition summarizes the key aspects of the above analysis:

Proposition 1: *Under autarky, the tax revenues raised in the South fall with the regional productivity A_S and decrease with the marginal tax-collection costs K. Under political union, they rise with A_S, fall with both K and the political relevance of the South for the northern elite β, and are larger than under autarky if A_S is not too small and $\beta \to 0$.*[13]

Next, we take stock of the results obtained so far to analyze the impact on investment and economic outcomes of an exogenous shock turning autarky into a political union.

3.3 The Rise of the North-South Divide

Under political union, the southern citizenry's investment and welfare $\hat{C}_S^U = V_S^U = \frac{A_S}{8} + \frac{\beta\left(1-\alpha^U\gamma\right)}{8(1-\alpha^U-K)}$ rise with K, β, and α^U since all these factors curb extraction and so investment distortions. Moreover, a little of algebra shows that, since $1-K < \frac{1}{\gamma}$, the southern citizenry's welfare is higher under autarky (political union) for β lower (higher) than $\frac{(\alpha\gamma-1)\left(1-\alpha^U-K\right)}{(1-\alpha^U\gamma)(K+\alpha-1)}$. Going back to our historical experiment, given levels of α^U, γ, and K common to all the annexed regions, those to which the Piedmontese elite assigned a sufficiently large β should have gained from Unification, whereas those for which β was moderate or low should have lost. Consistent with this remark, the upper(bottom)-right graph in figure 1 displays a positive link between (distortions in) railway diffusion and the regional political relevance. The following proposition summarizes the key elements of the above investigation:

Proposition 2: *Under political union, both the southern citizenry's investment $\hat{C}_S^U$ and*

[13] To elaborate, $\hat{t}_S^U A_S \hat{C}_S^U > \hat{t}_S A_S \hat{C}_S$ whenever $\frac{A_S^2}{16(1-\alpha^U\gamma)} + \frac{A_S^2}{16(\alpha\gamma-1)} > \frac{\beta^2\left(1-\alpha^U\gamma\right)}{16(1-\alpha^U-K)^2} + \frac{\alpha\gamma-1}{16(K+\alpha-1)^2}$.

welfare V_S^U rise with the marginal tax-collection costs K and the political relevance β, and they are lower (higher) than under autarky for β sufficiently small (large).

Our model provides a theory of endogenous extractive policies in a political or economic union dominated by one of its constituents caring asymmetrically about the remaining members. One key extension to our analysis is to endogenize the parameter β to consider reforms towards a more democratic political process constraining the northern elite's choices (North et al., 2009; Acemoglu and Robinson, 2012; Boranbay and Guerriero, 2016). Similarly, the elite might be induced to extract less if worried that the South's citizenry could opt out of the modern sector producing X_S and specialize instead in a sector demanding no investments. We leave the first robustness check to future research being less related to our historical experiment, but we discuss in details the second one in the following section.

3.4 General Equilibrium Disincentives to Extraction

The southern citizenry can consume an alternative good T_S—i.e., wheat—produced through a "traditional" technology, which is linear in the productivity parameter L_S with $L_S < \frac{A_S^2}{16} + \frac{\beta A_S\left(1-\alpha^U\gamma\right)}{8(1-\alpha^U-K)} - \frac{3\beta^2\left(1-\alpha^U\gamma\right)^2}{16(1-\alpha^U-K)^2}$. Being the traditional sector technology independent of investment activities, the indirect utility of the citizenry S producing the good T_S equals $\sqrt{(1-\hat{\tau}_S^U)\,T_S + \alpha^U\gamma\hat{\tau}_S^U T_S} = \sqrt{\tilde{\tau}_S^U L_S}$, where τ_S^U is the tax rate levied on the traditional good in the South and $\tilde{\tau}_S^U \equiv 1 - \hat{\tau}_S^U\left(1-\alpha^U\gamma\right)$. In equilibrium, $V_S^U = \frac{\beta\left(1-\alpha^U\gamma\right)}{2(1-\alpha^U-K)}$ because $\tau_S^U = \frac{1}{1-\alpha^U\gamma} - \frac{\beta^2\left(1-\alpha^U\gamma\right)}{4L_S(1-\alpha^U-K)^2}$. Thus, the southern citizenry selects the traditional sector if $\alpha^U < \frac{3\beta-A_S(1-K)}{3\beta\gamma-A_S} \equiv \overline{\alpha}^U$, even if the northern elite would always prefer otherwise under our restriction on L_S. Therefore, the latter is now willing to extract a weakly lower surplus by acting as if α^U was at least $\overline{\alpha}^U$ to levy taxes on a more productive activity. The northern elite will face a similar incentive, should we allow for inter-group trade. In this last case, extraction is curbed by the prospect of cheap imports. Since regional trades were very limited over our sample (Iuzzolino et al., 2011), we leave also this extension to future research.

4 Empirical Implications

Our model produces two sets of implications regarding the aforementioned thirteen present-day Italian regions incorporated by the Kingdom of Italy before World War I but not

part of the Kingdom of Sardinia. While the first one concerns the determinants of pre-unitary and post-unitary tax policies, the second one deals with the impact of the post-unitary determinants of tax policies on both post-unitary economic outcomes and investment. These implications can be restated as testable predictions in the following manner:

Predictions: *Pre-unitary tax revenues will fall with both the region's productivity and the marginal tax-collection costs but will be independent of the region's political relevance for the Piedmontese elite. Post-unitary tax revenues will increase with the region's productivity and decrease with both the marginal tax-collection costs and the region's political relevance. Finally, post-unitary economic outcomes and both cultural and human capital accumulation will rise with the marginal tax-collection costs and the region's political relevance.*

5 Evidence

To test our predictions, we need, first and foremost, information on the most economically relevant taxes, proxies for the regional productivity, the tax-collection costs, and the regional political relevance, and measures of economic outcomes and both cultural and human capital accumulation. Furthermore, we require an appropriate empirical strategy.

5.1 Measuring Taxation and Its Determinants

Following the extant literature on the North-South divide (Ciccarelli and Fenoaltea, 2013), we base our analysis on 10-year benchmarks. Moreover, we focus on the period around the Unification over which the thirteen regions we consider kept stable territorial limits and extractive policies remained region-specific, i.e., 1801-1911 (Parravicini, 1958; Galasso, 2011).[14] Elaborating on the first sample feature, we employ present-day regional boundaries, but our results are similar if we switch to the historical ones.[15] For what concerns extractive policies, we look at the land property taxation being the Italian economy essentially agrarian over the 19th century. In absence of sufficient information on pre-unitary fiscal legislation and given the peculiar features of the *contingente* method however, we focus on the revenues from land property taxes—i.e., "imposta sul valore fondiario"—per capita

[14] This is roughly the period elapsing between the treaty of Campo Formio (1797) and World War I.

[15] Piedmont, Liguria, and Sardinia were part of the Kingdom of Sardinia, whereas after the annexation of the Venetian and Roman provinces, Friuli-Venezia Giulia and Trentino-Alto Adige were entirely incorporated by the Kingdom of Italy in respectively 1918 and 1919. Finally, Molise was separated from Abruzzi in 1963.

in 1861 lire—i.e., *Land-Taxes*—employing the closest year in the case of an unavailable observation (see table 1). Land property taxes accounted for 54 percent of direct taxes over the sample, have been region-specific up to 1922, and hit the profitability from land property shaping in turn the landowner's investment decisions (see section 2). To show that our results are not driven by differences in land availability, we document in the Internet appendix that they are similar if we divide revenues by the arable land. Unfortunately, we cannot compare our estimates with those one would obtain using the milling tax since this was introduced in 1868 and abolished in 1884, and thus an insufficient number of observations is available.

To gauge the productivity of the key farming activities, we exploit the geographic inputs to the technologies producing silk, citrus, olives, and wheat. While the first three correspond to the marked-oriented sector analyzed in the basic model, wheat breeding embodies the traditional sector discussed in section 3.4. Building on section 2, we proxy the productivity of sericulture with the normalized first principal component extracted from the share of the region's surface covered by large lakes and rivers and the average growing season precipitation in the previous decade in ml, i.e., *Sericulture*.[16] Turning to wheat farming and arboriculture, we build on a legacy of agronomy studies showing that they weakly rise with the relevant land suitability and both the growing season precipitation and temperature (Britannica, 2014), and we use principal component analysis to aggregate only those geographic features positively correlated to the underlying "productivity" construct (Rosenthal and Voeten, 2007). Accordingly, we elect as a proxy for the productivity of wheat farming the variable *Wheat*, which is the normalized first principal component extracted from the land suitability for wheat in hundredth and the average growing season precipitation in the previous decade in ml, and as a proxy for the productivity of arboriculture the variable *Arboriculture*, which is the normalized first principal component extracted from the land suitabilities for citrus and olive trees in hundredth and the average growing season temperature in the previous decade in Celsius degrees.[17] Consistent with our choice, the growing season temperature

[16]The basin (precipitation) data are in grid format, cover the entire World (Europe) at a 0.5 degrees spatial resolution (and for the 1400-1900 period), and are collected from the GLWD dataset (Pauling et al., 2006). To the best of our knowledge, there is no information on the land suitability for mulberry and grapevine in our sample. Characterizing the viticulture technology is an important avenue for future research since the export of wine was an relevant source of income in 19th century Italy (Pescosolido, 2011).

[17]The land (temperature) data are in grid format, cover the entire World (Europe) at a 0.5 degrees spatial resolution (and for the 1500-2004 period), and come from the GAEZ dataset (Luterbacher et al., 2004).

(precipitation) does not correlate with the first principal component extracted from itself, the land suitability(ies) for wheat (citrus and olive trees), and the growing season precipitation (temperature). To validate our measurement exercise, first we document the significant—conditional on time effects—partial correlation of our proxies with the contemporaneous production of respectively silk in kg per kg of silkworm incubated, wheat in hectoliters per cultivated hectare, and both citrus fruits per tree and olive oil in hectoliters per cultivated hectare (MAIC, 1864, 1881, 1892, 1900, and 1912), and then we show that our estimates are similar when we focus instead on the productivity of either citrus or olive breeding (see the Internet appendix). We cannot use directly the land suitabilities for wheat, citrus, and olive trees, the share of surface covered by lakes and rivers, and the growing season temperature and precipitation since the first four will be absorbed by the fixed effects, while the last two will not capture alone the productivity of either arboriculture or sericulture.

Turning to the marginal tax-collection costs, we follow Dincecco et al. (2011) and we incorporate into the analysis the share of previous decade in which the state to which the region belonged partook in external wars, i.e., *War*. A broad literature has shown that a key determinant of a state capacity to raise tax revenues is the provision of common interest public goods, such as fighting external wars (Besley and Persson, 2009). Accordingly, higher values of *War* should correspond to lower marginal tax-collection costs. Our results will be similar, should we consider the share of years from the Congress of Vienna in which the state to which the region belonged partook in external wars (see the Internet appendix).

Finally, we employ as an inverse metrics of a region's military saliency and in turn political relevance for the Piedmontese elite the distance in km between the region's main city and the capital of the foreign power most adverse to the House of Savoy, i.e., Vienna over the 1801-1813, 1848-1881, and 1901-1914 periods, and Paris otherwise, i.e., *Distance-to-Enemies*. Our choice can be explained as follows. Conquered by Napoleon in 1796, the Kingdom of Sardinia came out from the Congress of Vienna as an independent reign including also Genoa and formally opposed to France (Galasso, 2011). Yet, the Austro-Sardinian War ignited by the Spring of Nations fired up an enmity between the Savoys and Austria that flowed in 1859 and 1866 into respectively the Second and Third Wars of Independence. France took this opportunity to draw up an alliance with the Kingdom of Sardinia with the

twofold aim of gaining back Nice and the Savoy and erecting a wall against Austria. The French-Italian coalition ended in 1881 when France established a protectorate in Tunisia. Frustrated in its colonial efforts, Italy secured in 1882 the Triple Alliance with Austria and Germany by committing to mutual support against a French attack. The deterioration of the relationship between England and the Triple Alliance due to Otto von Bismark's "realpolitik" and the conflicts in Africa promoted however the 1902 French-Italian colonial agreements. The revived Paris-Rome axis paved the way to the end of the Triple Alliance and the blast of World War I. In a placebo test, we document that the average distance in km of each region's main city from the capital/s of the foreign power/s less salient for the House of Savoy,[18] because excluded from the Congress of Vienna and/or from the Triple Alliance and Entente, is never significant in our regressions (see the Internet appendix).

5.2 Endogenous Taxation

We estimate endogenous taxation equations of the type

$$LT_{r,t} = \alpha_r + \beta_{\mathbf{0}}' \mathbf{A}_{r,t} + \beta_{\mathbf{1}}' \mathbf{A}_{r,t}^2 + \gamma_0 S_{r,t} + \gamma_1 S_{r,t}^2 + \delta_0 P_{r,t} + \delta_1 P_{r,t}^2 + \epsilon_{r,t}, \tag{4}$$

where $LT_{r,t}$ is *Land-Taxes* in region r and year t, the vector $\mathbf{A}_{r,t}$ gathers *Sericulture*, *Wheat*, and *Arboriculture*, $S_{r,t}$ labels *War*, and $P_{r,t}$ is *Distance-to-Enemies*. α_r accounts for time-invariant differences across regions like the land suitability for agriculture, the surface, the arable land, and long-lasting institutional structures. Including the squared terms of $\mathbf{A}_{r,t}$, $S_{r,t}$, and $P_{r,t}$ into equation (4) allows us to consider the nonlinearities in the functional forms of the equilibrium tax revenues (see section 3). The key implications to be tested are that the marginal effect of a rise in either *Sericulture* or *Arboriculture* is negative (positive) and significant in the pre(post)-unitary sample, the marginal effect of an increase in *War* is positive and significant, and the marginal effect of a rise in *Distance-to-Enemies* is insignificant in the pre-unitary sample and positive and significant otherwise (see section 4).[19]

In judging our empirical strategy, it is important to highlight the adequacy of the speci-

[18] This (these) is (are) Istanbul between 1801 and 1815 (Amsterdam, Copenhagen, and Istanbul between 1816 and 1882 and Amsterdam, Copenhagen, Istanbul, Lisbon, and Madrid between 1883 and 1914).

[19] For instance, the second marginal effect can be expressed in terms of the parameters of equation (4) as $\left(\hat{\gamma}_0 + 2\hat{\gamma}_1 \overline{S}\right) \Delta$, where Δ is the rise in *War* from the value $\overline{S}$, whereas $\hat{\gamma}_0$ and $\hat{\gamma}_1$ are estimated coefficients.

fication and the exogeneity of the regressors. Starting from the former, an important caveat to our approach might be that Unification dramatically changed the structure of the regional economies making our positive taxation model inadequate for the post-unitary sample. Yet, over the 1861-1911 period, the percentage of the active population employed in the industrial sectors grew in the North by only one percent—i.e., from 12 to 13—and felt in the South by only two percent, i.e., from 14 to 12. Therefore, Italy remained before World War I an intrinsically agricultural economy (Pescosolido, 2011): this evidence fully supports our assumption of no structural break between the two samples. For what concerns the exogeneity of the regressors, three observations are key. First, the controls encapsulated in $\mathbf{A}_{r,t}$ are exogenous because driven by either climate shocks or features of the region's terrain independent of human effort. Second, *War* is determined by the following six conflicts: 1. "Austro-Sardinian" War of 1848; 2. "Roman Republic" War of 1849; 3. "Italian Unification" War of 1859; 4. "Italian-Roman" War of 1860; 5. "Neapolitan" War of 1860; 6. "Seven Weeks" War of 1866. As detailed in the Internet appendix, these clashes were unfold by the pre-unitary foreign policy of the Kingdom of Sardinia, the unrests provoked by the Spring of Nations, and the German realpolitik. Hence, since the Piedmontese elite did not foresee the Unification at the inception of the struggles, none of the policy makers fixing $LT_{r,t}$ in equation (4) affected the evolution of these conflicts (Killinger, 2002; Paoletti, 2008; Riall, 2009). Finally, also *Distance-to-Enemies* is determined by events outside the control of the elites of the pre-unitary states and of the Piedmontese elite after the Unification, like the Congress of Vienna, the Spring of Nations, the French expansion in Tunisia, and the German realpolitik.[20] Furthermore, since the relative marginal effect is identified by its time variation, *Distance-to-Enemies* cannot simply reflect the distance from international markets or unobserved time-invariant regional differences. Finally, multicollinearity is not an issue in our empirical exercise since the correlation between *War* and *Distance-to-Enemies* is limited.

Columns (1) to (3) of table 3 display the estimates for three alternative specifications for the pre-unitary sample, the first excluding both *War* and *Distance-to-Enemies*, the second excluding only *Distance-to-Enemies*, and the third one including all controls. Columns (4)

[20]For the 1801-1851 sample, we cannot construct a proxy for the political relevance of each region for the elite of the pre-unitary state to which it belonged since the partition of Italy by the Congress of Vienna was precisely aimed to assure that none of these states could attack or be attacked by the neighboring states.

to (6) of table 3 have the same structure but are based on the post-unitary sample. To control for arbitrary correlation within groups, all the regressions we run allow for clustering by region. We will obtain similar results, should we deal with generic spatial dependence in the error term by relying on the Conley (1999) standard errors (see the Internet appendix).

For the most part, the results are consistent with the model predictions, and the implied effects are large. First, in the pre-unitary sample a rise in *Arboriculture* from the lowest North's value—i.e., 0.2 in Lombardy—to the highest South's one—i.e., 0.99 in Apulia—implies a 8.1-standard-deviation fall in *Land-Taxes* in column (1) and is always significant at 10 percent or better in columns (1) to (3). This is not the case for either *Sericulture* or *Wheat*. These patterns are consistent with the aforementioned mid-19th century boom in arboriculture exports and the Pebrine epidemic. Second, the proxies for farming productivities are insignificant in the post-unitary sample as expected given the fierce competition experienced by Italy at the end of the 19th century. Third, lower marginal tax-collection costs are not significantly related to larger land property tax revenues. This last piece of evidence is possibly driven by both the constraints on the pre-unitary states' ability to wage war imposed by the Congress of Vienna and the fewness of the external conflicts involving the Kingdom of Italy between Unification and World War I (see section 2). Finally, *Distance-to-Enemies* is irrelevant to explain pre-unitary regional taxation but represents the strongest predictor of post-unitary land property taxes. Indeed, an increase in the distance of the region's main city from the worst House of Savoy's enemies from the lowest North's value—i.e., 504 in Veneto—to the highest South's one—i.e., 1206 in Sicily—is linked to a 0.7-standard-deviation rise in *Land-Taxes*, which is significant at 5 percent (see column (6)).

All in all, it is fair to summarize our results stating that pre-unitary tax policies trade-off net tax-collection costs minimization and the citizenry's welfare maximization, whereas post-unitary ones respond only to the asymmetric rent-seeking interests of the Piedmontese elite. Next, we study the impact of this rational extraction process on post-unitary outcomes.

5.3 The Rise of the North-South Divide

Given the functional form for $V_S^U = \hat{C}_S^U$, we estimate outcome equations of the type

$$Y_{r,t} = \alpha_r + \beta_{\mathbf{2}}' \mathbf{A}_{r,t} + \gamma_2 S_{r,t} + \gamma_3 S_{r,t}^2 + \delta_2 P_{r,t} + \zeta D_{r,t} + \nu_{r,t}, \tag{5}$$

where $Y_{r,t}$ is the ratio of one among six variables to its 1861 value, i.e., *GDP*, *Culture*, *Illiterates*, *VA-F*, *VA-C*, and *VA-M* (see table 1). These variables are respectively the income in 1861 lire per capita, the share of active population engaged in political, union, and religious activities, the share of the population aged over six that was illiterate, and the value added in the foodstuff, clothing, and manufacturing sector in millions of 1861 lire. While *Culture* is a proxy for cultural accumulation, *Illiterates* is negatively linked to human capital accumulation.[21] Moreover, the foodstuff and clothing value added gauge the profitability of the industries processing arboricolture and sericulture products, whereas the manufacturing value added coarsely measures the Italian industrialization in the residual sectors. When needed, we impute a missing observation with the following decade data point. This choice does not affect the gist of our results, which indeed remain similar when we switch to the 1871-1911 sub-sample (see the Internet appendix).[22] For this period, we observe almost all the variables. Our results are also robust to dividing each value added by the population or to proxying $Y_{r,t}$ with either the gross saleable annual farming product, the life expectancy, the average height of conscripted workers, or the population density (see the Internet appendix).

α_r controls again for time-invariant differences across regions like unobserved local inputs and long-lasting institutional arrangements as the inclusiveness of the pre-unitary political process.[23] To avoid that the latter is biasing our results through a time-variant effect, we experiment in the Internet appendix with time dummies and their interaction with the average over the 1000-1600 period of the inclusiveness of regional political institutions coded by Boranbay and Guerriero (2016). To preserve a sufficient within-region variation in these regressions, we do not cluster standard errors at the regional level. Our results imply that our conclusions are not driven by region-invariant unobservables and medieval political institutions as instead prompted by the extant literature (Tabellini, 2010; Guiso et al., 2016).

$D_{r,t}$ is the difference between the observed *Land-Taxes* and the land property tax revenues

[21] Felice and Vasta (2015) propose a different but less reliable proxy for culture (Daniele and Malanima, 2014).
[22] In this robustness check, we measure $Y_{r,t}$ with the ratio of each variable to its 1871 value.
[23] Lynn (2010) claims that genetic differences are the crucial driver of the North-South imbalances. Yet, this odd argument has been proven completely unfounded by Felice and Giugliano (2011).

per capita forecasted using the specification in column (1) of table 3, i.e., *Distortion-LT*. We do not use as forecasting model one of the specifications reported in columns (2) and (3) of the same table since post-unitary values of $S_{r,t}$ and $P_{r,t}$ should be irrelevant in the counterfactual autarky regime. In our model, the severity of post-unitary extraction entails that the southern citizenry prefers private to public good production, and thus observed tax revenues higher than the counterfactual autarky equilibrium—i.e., positive *Distortion-LT* values—imply excessive taxation. This interpretation is consistent with the evidence on the inefficiency of post-unitary public spending in the South discussed in section 2. By an argument similar to that proposed above, *Distortion-LT* should be considered exogenous because caused by events outside the control of the Piedmontese elite. We expect that the marginal effect of a rise in *War*, δ_2, and ζ are negative (positive if the dependent variable is *Illiterates*) and significant. Since however *Distortion-LT* incorporates unobserved components of the tax-collection costs and the region's political relevance, we anticipate that, should the marginal effect of a rise in $S_{r,t}$ and/or δ_2 be significant, the coefficient ζ will be insignificant.

A glance at figures 1 and 3 confirms the model predictions. The two upper-graphs in figure 1 show the opposite post-unitary evolutions of land property tax revenues and railway diffusion. In a nutshell, the regions less politically relevant for the Piedmontese elite experienced both the most hindering tax policies and the weakest public effort in railway construction, whereas the opposite is true for the regions nearest to the French and Austrian borders (see figure 1). A similar pattern arises when post-unitary distortions in land property taxes are compared with the changes in the value added in the foodstuff sector, culture, and illiterates (see figure 3). Over the 1861-1911 period, *Distortion-LT* is the lowest in Veneto, which gained from the Unification a 1.188—1861—lire per capita average fall in land property taxes, and the highest in the South, which paid the Unification with a 0.580—1861—lire per capita average rise in *Land-Taxes*. To put these figures into perspective, a back-of-the-envelope calculation based on the average farming profitability in Sicily reveals that tax distortions raised of seven times the 1871 start-up cost of a citrus cultivation in the South, i.e., from less than one to six months of average after-tax farming profits per square km of arable land.[24] Not surprisingly, braked by this huge rise in investment costs and absent

[24]To get the after-tax profits, we combined the facts that the average (distortions in) land property tax revenues

developed financial markets, the South witnessed the slowest growth in the value added in the foodstuff sector, the sharpest fall in culture, and the most limited decline in illiteracy.

Multivariate analysis confirms these relationships. In particular, panels A to D of table 4 list the estimates of equation (5) for four specifications always including the proxies for the regional productivity. A first one incorporates also *War* and War^2, a second one adds only *Distance-to-Enemies*, a third one throws in only *Distortion-LT*, and a last one considers all controls. Again, the estimates are consistent with the testable predictions, and the marginal effects are sizable. To illustrate, a one-standard-deviation rise in *War*—i.e., 0.01—from its post-unitary mean—i.e., 0.005—corresponds to a 0.8-standard-deviation fall in *GDP*, a 0.6-standard-deviation decrease in *Culture*, and a 1-standard-deviation increase in *Illiterates* (see panel D). Similarly, a rise in *Distance-to-Enemies* from the lowest North's to the highest South's value implies a 0.8-standard-deviation fall in *GDP* and a 0.5-standard-deviation decrease in *Culture*, whereas a one-standard-deviation increase in *Distortion-LT* or 1.8—1861—lire per capita leads to a 1.4(0.9)-standard-deviation decrease in *VA-F* and *VA-M* (*VA-C*). All these coefficients are significant at 10 percent or better. All in all, as expected, either the state capacity together with the inverse measure of the regional political relevance or tax distortions are strong predictors of the rise of the North-South gap.

5.4 Identifying Causal Relationships

The empirical results discussed so far are all consistent with the testable predictions produced by our model (see section 4). To evaluate whether they are driven by unobserved heterogeneity, we pursue a two-step strategy. First we control for relevant observable factors, and then we use selection on observables to assess the bias from unobservables.

5.4.1 Controlling for Observables

We consider four observables possibly confounding the effect of tax distortions on outcomes. First, to understand the impact of the technological drivers of the Industrial Revolution, we look at the horsepower units of hydroelectric and water power production in millions

per square km of arable land in the South were 565 (483) lire and that, building on Dimico et al. (2012), Pescosolido (2010), and SVIMEZ (2011), the average pretax farming profit per square km of arable land in Sicily was 5964 lire. Being seed and labor costs negligible, the main start-up expenses were the five years of land property taxes to be payed while the newly planted trees became productive (Britannica, 2014).

of 1861 lire, i.e., *HW-Power* (Missiaia, 2012). Water represented the single and most important energy endowment in the post-unitary period and became increasingly relevant for the newborn industry (Missiaia, 2012). Second, we tackle the possibility that demographic differences, captured by the population per square kilometer—i.e., *Population-D*, determine outcomes by shaping the incidence of land property taxes. In the Internet appendix, we also experiment by using the ratio of this variable to its 1861 value as an alternative proxy for economic outcomes with the idea that it could capture better than *GDP* the development of the essentially agrarian Italian regions. This exercise delivers a qualitative similar evidence. Third, to evaluate the idea that the unequal land ownership and income created an extractive bourgeoisie in the South (Felice, 2014), we include into the analysis the Gini coefficient, i.e., *Gini* (Vecchi, 2011). We also obtain a qualitatively similar evidence when *Illiterates* is used as a control rather than as a dependent variable. Finally, we incorporate the ratio of the non tradable goods regional wage to the Italian average, i.e., *Wages* (Felice and Vasta, 2015). Controlling for *Wages* should exclude that either the selection of the conversion rates between pre-unitary currencies and the lire or wage rigidities drive our results.

The estimates listed in panels A to D of table 5 reveal that our results remain almost intact once we consider alternative explanations of the North-South divide. Consistent with the historical analysis of section 2, while exchange rate policies and the fragmentation of economic power do not make an economically relevant dent in explaining the post-unitary divergence in the wellbeing of the two clusters, both the energy endowment and the population density help shed further light on the post-unitary evolution of the Italian economy.

5.4.2 Using Selection on Observables to Assess the Bias from Unobservables

Despite our attempts to control for relevant observables, our estimates may still be biased by unobservable factors correlated with either the regional productivity, the state capacity, or the region's political relevance for the Piedmontese elite. To evaluate this issue, we calculate the index proposed by Altonji et al. (2005) to measure how much stronger selection on unobservables, relative to selection on observables, must be to explain away the entire estimated effect.[25] To see how the index is calculated, consider a regression with a restricted set of control variables and one with a full set of controls. Next, denote the estimate of the

[25]We use the version developed by Bellows and Miguel (2009) for possibly endogenous continuous variables.

coefficient attached to the variable of interest from the first regression λ^R, where R stands for "restricted," and that from the second regression λ^F, where F stands for "full." Then, the index is the absolute value of $\lambda^F/(\lambda^R - \lambda^F)$. The intuition behind the formula is as follows. The lower the absolute value of $(\lambda^R - \lambda^F)$ is, the less the estimate of the coefficient attached to the variable of interest is affected by selection on observables, and the stronger selection on unobservables needs to be to explain away the entire effect. Moreover, the higher the absolute value of λ^F is, the greater is the effect that needs to be explained away by selection on unobservables, and thus the higher the index is. We focus on the variables testing the key model predictions (see table 6), and in particular respectively the proxy for the productivity of arboriculture and the measure of the regional political relevance in the endogenous taxation models run respectively on the pre-unitary and post-unitary samples (see column (1) and (2)), and *War*, War^2, *Distance-to-Enemies*, and *Distortion-LT* in the outcome equations (see columns (3) to (8)). The group of covariates incorporated only in the full set is reported in the last three rows of table 6 and includes in the case of the outcome regressions *HW-Power*, which is the single and most relevant extra control considered. We will obtain similar indexes, should we focus instead on either *Population-D*, *Gini*, or *Wages*.

The median and the average indexes in columns (1) and (2) are 3.11 and 4.56, whereas the median and the average indexes in columns (3) to (8) are 13.13 and 17.63. Thus, to attribute the entire OLS estimates to selection effects, selection on unobservables would have to be on average about 16 times greater than selection on observables. Given the high fit of our regressions—i.e., with an average within R^2 of 0.31 (59.2) in table 3 (panel D of table 4), it is unlikely that our estimates are simply driven by unobserved heterogeneity.

5.5 Post-Unitary Distortions in Public Good Provision

One objection to our conclusions is that the post-unitary "North-South divergence was not deliberately constructed by virtue of political decisions to the disadvantage of the South, but it was even acceptable in a country whose productive system was highly differentiated" (Iuzzolino et al., 2011). In other words, tax distortions would have been the price to be paid to assure industrialization in the only part of the country structurally ready for it. To evaluate this idea, we build on our model to first identify the pre-unitary determinants of

railway diffusion and then assess its post-unitary distortions with a strategy similar to that embraced in section 5.2. We estimate public good provision equations of the type

$$R_{r,t} = \alpha_r + \iota_t + \beta'_{\mathbf{3}}\mathbf{A}_{r,t} + \beta'_{\mathbf{4}}\mathbf{A}^2_{r,t} + \gamma_4 S_{r,t} + \gamma_5 S^2_{r,t} + \delta_3 P_{r,t} + \delta_4 P^2_{r,t} + \tau_0 O_r \iota_t + \eta_{r,t}, \quad (6)$$

where $R_{r,t}$ is the length in km of railway per square km built in the previous decade, i.e., *Railway*. Following Picci (2002), we also consider the orographic nature of each region as a proxy for railway building costs by including in the specification the terrain ruggedness O_r in Km—i.e., *Ruggedness*—interacted with time dummies ι_t. Since ι_t appears also as extra control, we do not cluster standard errors at the regional level to preserve a sufficient within-region variation. This time, α_r accounts for time-invariant shifters of railway diffusion like the traveling distance from international markets and long-lasting institutions.

Table 7 is structured in the same way as table 3. Two are the key observations. First, as prompted by extant literature (Iuzzolino et al., 2011), the crucial aim of pre-unitary railway diffusion was the strengthening of the intra-state trade of wheat. Accordingly, a rise in *Wheat* from the lowest South's value—i.e., 0.01 in Calabria—to the highest North's one—i.e., 0.79 in Lombardy—implies a 15.4-standard-deviation increase in *Railway* in column (1) and is always significant at 5 percent in columns (1) to (3). Second, the post-unitary railway expansion was only shaped by the regional political relevance. In particular, a rise in *Distance-to-Enemies* from the lowest North's value to the highest South's value leads to a 7.9-standard-deviation fall in *Railway*, which is significant at 5 percent (see column (6)).

Placing side to side these with the estimates discussed above, we can conclude that regions farther away from the possible battlefields enjoyed the slowest post-unitary railway diffusion but paid the highest relative costs. Moreover, plotting the differences between the observed post-unitary values of *Railway* and those forecasted using the specification in column (1) of table 7—i.e., *Distortion-R*—across regional clusters reveals that the South experienced periods of both under- and over-investment in railway, whereas the effort in the North's network expansion was generally more intense than it would have been without Unification (see bottom-right graph in figure 1). This evidence speaks against the idea that subsidization of the northern infrastructures at the expenses of the South was optimal.

5.6 External Validity: the American Civil War Case

To alleviate concerns that the Italian Unification might be a very special case, we discuss in the following the closely related instance of the American Civil War.

Slavery was the key source of escalating political tension in the 1850s (Keller, 1977). The Republican Party, dominated by the northern elite, was determined to prevent its spread, and thus many southern leaders had threatened secession if the Republican candidate, Lincoln, won the 1860 election. Once this happened, eleven southern states—i.e., Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia—seceded and formed the Confederate States of America. This move unchained a dreadful conflict against the twenty-three states remained loyal to the Union and the seven territories that fought on their side, i.e., Colorado, Dakota, Nebraska, Nevada, New Mexico, Utah, and Washington. In four years the war brought almost one million casualties (Foner, 1988), the shooting of Lincoln, and the tacit understanding among the winners that the "prewar leadership of the southern slavocrats in national politics was permanently to be replaced in favor of the northern direction" [Donald and Randall 1961, p. 535].

South's reintegration however soon became a tumultuous affair known as "Reconstruction Era" (1863-77) and usually divided by historians in "Wartime," "Presidential," and "Radical" phases (Foner, 1988). While the first one identifies Lincoln's Emancipation Proclamation and the Union's seizure of the Confederate states, the second one refers to the new president Johnson's try to guarantee "the white South a virtual hand in regulating the region's internal affairs" [Foner 1988, p. 199]. Yet, this attempt to undermine the consequences of the war itself drove many northern radical Republicans to advocate a profound redistribution of the South's economic resources and political power away form the old elite of white planters in favor of the blacks and poor whites (Keller, 1977). This Radical phase of the Reconstruction program opened as soon as the Republicans gained in 1866 the majority of the US Congress, was reinforced by Grant's election in 1868, and "affected every facet of southern life" [Foner 1988, p. 346]. As in the case of the Italian Unification, the northern elite imposed a series of heavily extractive policies (Keller, 1977). First, the ex-Confederate states were split into five military districts under martial law to enforce black vote. In this way, the North could

restrain the southern elite's initiative sprang by Johnson's policies to the point that the Radical politics assumed "a "colonial" pattern" [Foner 1988, p. 377]. Second, "property taxes rose steadily" [Foner 1988, p. 383]. These tax rises are illustrated in the upper-left graph in figure 4, which depicts the ratio of total taxes to GDP for the ex-Confederate states and the pro-Union territories between 1850 and 1890. Crucially, the former surpassed the latter in the 1870s. Republicans defended these policies as instrumental to obtain the necessary land redistribution. In particular, if planters were unable to pay higher taxes, the government would confiscate their properties and sell it to blacks and poor whites (Foner, 1988). Yet, these groups had no means to buy, and thus the northern landowners quickly acquired a sizable share of the southern properties and, for instance, "by 1870, half of the [Louisiana] estates had fallen into the hands of northern investors" [Foner 1988, p. 399]. As a result, not only the southern population could not escape its destitution, but it also failed to keep "up with the phenomenal progress of the rest of the country" [Donald and Randall 1961, p. 548]. The remainder in figure 4 displays these patterns by showing the evolution over the 1850-1890 period of the GDP and the assessed valuations of taxed property and both taxed real estate and improvements across ex-Confederate states and pro-Union territories. As foreseen by our model, the states less politically relevant for the rulers endured the most penalizing tax policies and, as result, experienced the weakest economic growth.

The Radical Reconstruction era came to an end when the Democratic leaders realized that "financial criticisms of Republican rule" [Foner 1988, p. 415] would have moved both the southern masses and those northern voters dissatisfied with the political instability created by extraction.[26] In the aftermath of its 1874 victory, the Democratic Party pushed for the full integration of southern states into American politics and removed the last Union troops from the South. Nevertheless, exactly as in the case of post-unitary Italy, the consequences of extraction have been significant and long-lasting (Keller, 1977; Foner, 1988).

6 Conclusions

This paper has developed a theory of "endogenous extractive policies" grounded on the

[26] "If southern economic interests had coincided with those of the rising industrial groups of the North, there would have been no Radical reconstruction" [Donald and Randall 1961, p. 543].

mix of the heterogeneity in the relevance of the dominated groups for the dominating one and changes in the rulers' extractive power. Crucially, our model helps shed new light on a key issue in economics, which is the huge divide between North and South of Italy despite more than 150 years of common formal institutions. In fact, we document that its opening is the result of the region-specific policies selected between 1861 and 1911 by the Kingdom of Sardinia's elite, which annexed the rest of Italy in 1861. Pre-unitary regional revenues from land property taxes per capita indeed are mainly explained by each region's farming productivity but not by its political relevance for the Kingdom of Sardinia's elite, whereas the opposite is true for the post-unitary ones. Moreover, tax-collection costs, the regional political relevance, and tax distortions shaped the growing North-South gap in post-unitary development, culture, and literacy. We gauge tax distortions with the difference between the observed land property tax revenues per capita and those that would have prevailed without Unification and forecasted through pre-unitary estimates. To assess the role of unobserved heterogeneity, we follow a two-step strategy. First, we control not only for fixed region effects, but also for energy endowment, population density, income inequality, wages, and medieval political institutions. Including these controls has little effect on our results. Second, we build on Altonji et al. (2005), and we calculate that selection on unobservables would have to be on average about 16 times greater than the influence of observables to explain away our results. Given the high fit of our regressions, this is unlikely. Finally, to show that post-unitary tax distortions cannot be considered the acceptable price for the industrialization of the North, we document that pre-unitary railway diffusion was only driven by the contemporaneous region's farming productivity, whereas the post-unitary one was only shaped by the regional political relevance for the Piedmontese elite.

Our results characterize the crack of the dawn of the North-South divide, and other more recent factors may have aggravated the disparities arose with Unification (Iuzzolino et al., 2011). Accordingly, identifying these elements is a key avenue for further research. More important, our framework can be fruitfully employed to study related cases. Above, we illustrated how it helps rationalize the evolution of the post-Civil War taxation and outcomes in the US. A more topical application of our set up could be the analysis of the deep conflicts that are shaking the European Union nowadays (see also Guiso et al., [2015]).

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Tables and Figures

Table 1: Summary of Variables

	Variable	Definition and Sources	(1) 1801-1851	(2) 1861-1911	(3) Δ
Economic outcomes:	*GDP*:	Ratio of income in 1861 lire per capita to its 1861 value. Sources: Malanima (2006, 2011); Felice and Vasta (2015).		1.131 (0.341)	
	Culture:	Ratio of active population share engaged in political, union, and religious activities to its 1861 value. Source: SVIMEZ (2011).		0.935 (0.155)	
	Illiterates:	Ratio of percentage of illiterates in the total population over the age of six to its 1861 value. Source: SVIMEZ (2011).		0.784 (0.191)	
	VA-F:	Ratio of value added in the foodstuff sector in millions of 1861 lire to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.242 (0.307)	
	VA-C:	Ratio of value added in the clothing sector in millions of 1861 lire to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.601 (0.715)	
	VA-M:	Ratio of value added in the manufacturing sector in millions of 1861 lire to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.592 (0.650)	
Tax policies:	*Land-Taxes*:	Land property tax revenues per capita in 1861 lire. Sources: Dincecco et al. (2011); Ministero delle Finanze (1863, 1872, 1882, and 1888); MAIC (1900 and 1912).	3.236 (1.970)	3.590 (1.187)	- 0.354 (0.260)
	Distortion-LT:	Difference between *Land-Taxes* and the land property tax revenues per capita in 1861 lire forecasted through pre-unitary estimates.		0.360 (1.753)	
Public good provision:	*Railway*:	Railway length in km per square km built in the previous decade. Sources: SVIMEZ (2011), Romani (1982).	0.0016 (0.0036)	0.0089 (0.0152)	- 0.007 (0.002)***
	Distortion-R:	Difference between *Railway* and railway length in km per square km built in the previous decade and forecasted through pre-unitary estimates.		0.001 (0.018)	
Farming technology:	*Sericulture*:	Normalized first principal component extracted from the share of the region's surface covered by lakes and rivers and the average growing season precipitation in ml in the previous decade. Sources: GLWD dataset, http://worldwildlife.org/; Pauling et al. (2006).	0.306 (0.239)	0.323 (0.243)	- 0.018 (0.039)
	Wheat:	Normalized first principal component extracted from the land suitability for wheat ranging between 0 and 100 and the average growing season precipitation in ml in the previous decade. Sources: GAEZ dataset, http://www.gaez.iiasa.ac.at; Pauling et al. (2006).	0.281 (0.199)	0.298 (0.201)	- 0.017 (0.032)
	Arboriculture:	Normalized first principal component extracted from the land suitability for citrus and olive trees ranging between 0 and 100 and the average growing season temperature in Celsius degrees in the previous decade. Sources: GAEZ dataset, http://www.gaez.iiasa.ac.at; Luterbacher et al. (2004).	0.547 (0.192)	0.532 (0.192)	0.014 (0.031)
Other drivers of taxation:	*War*:	Share of previous decade in which the state to which the region belonged partook in external wars. Source: Correlates of War Project, http://www.correlatesofwar.org	0.004 (0.011)	0.005 (0.010)	- 0.001 (0.002)
	Distance-to-Enemies:	Distance in km between the region's main city and the capital of the foreign power most adverse to the House of Savoy, i.e., Vienna over the 1801-1813, 1848-1881, and 1901-1914 periods, and Paris otherwise. Source: Galasso (2011).	934.539 (311.239)	803.462 (255.570)	131.077 (45.599)***
Other controls:	*HW-Power*:	Horsepower units of hydroelectric and water power production in millions of 1861 lire. Source: Missiaia (2012).		2.984 (3.972)	
	Population-D:	Population per square kilometer. Source: SVIMEZ (2011).		153.091 (146.276)	
	Gini:	Gini coefficient. Source: Vecchi (2011).		44.268 (3.160)	
	Wages:	Ratio of the estimated regional wage based on non tradable goods to the Italian average. Source: Felice and Vasta (2015).		0.964 (0.106)	
	Ruggedness:	Average terrain ruggedness in Km. Source: G-Econ, http://gecon.yale.edu/		0.292 (0.082)	

Note: 1. Columns (1) and (2) report the mean value and, in parentheses, the standard deviation of each variable over the pre-unitary and post-unitary sample respectively. Column (3) lists instead the differences between the means of each variable over the pre-unitary and post-unitary samples and, in parentheses, their standard error. ***, **, and * denote a difference significant at respectively 1%, 5%, and 10% based on a t-test with unequal variances.

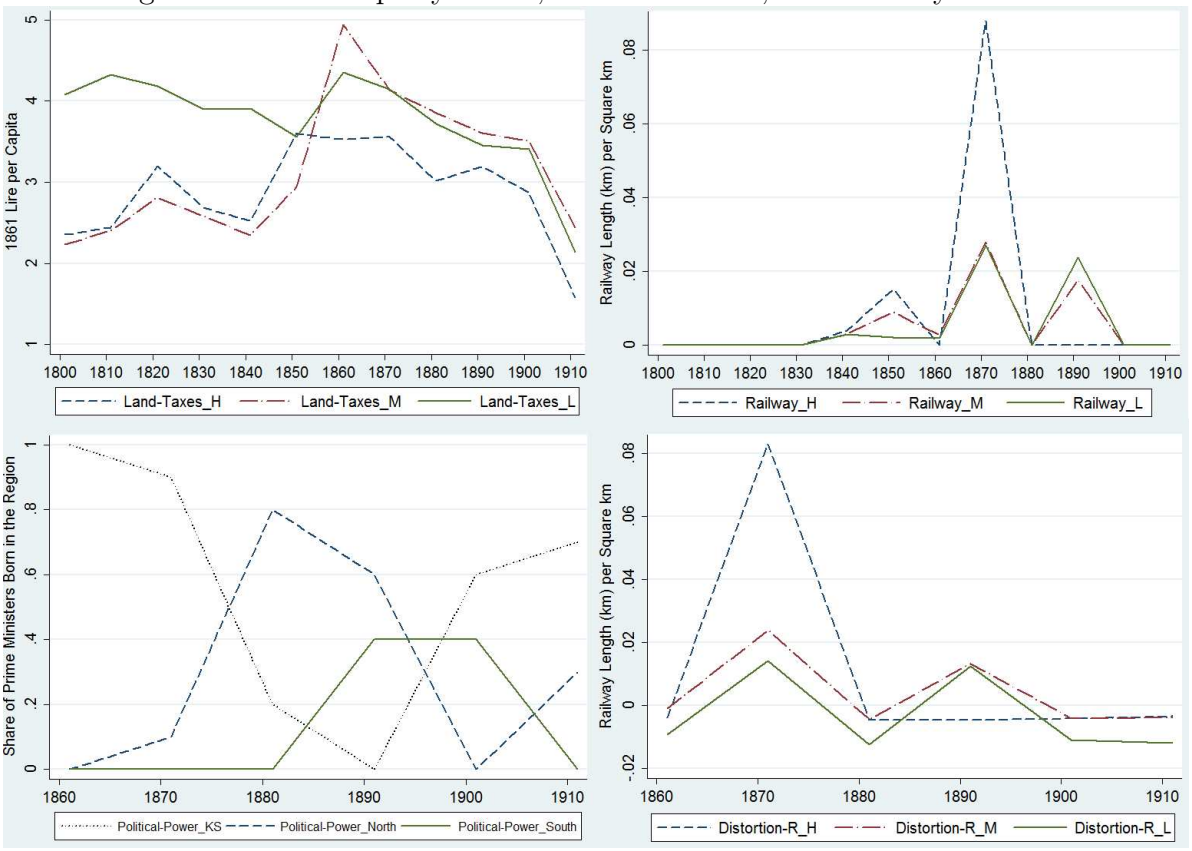
Table 2: High Versus Low Political Relevance Regions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1801-1851 sample				1861-1911 sample			
	High	Middle	Low	High - Low	High	Middle	Low	High - Low
	Political Relevance				Political Relevance			
GDP-L:	341.690	347.162	374.523	- 32.833	335.141	358.871	364.347	- 29.206
	(29.789)	(35.203)	(52.041)	(14.938)**	(84.132)	(94.139)	(126.063)	(40.264)
Culture-L:					0.633	0.725	0.950	- 0.317
					(0.052)	(0.183)	(0.394)	(0.069)***
Illiterates-L:					43.467	56.989	70.858	- 27.392
					(16.915)	(19.348)	(13.703)	(7.273)***
VA-F-L:					50.127	35.082	30.013	20.114
					(11.306)	(35.667)	(20.900)	(5.782)***
VA-C-L:					10.627	11.089	6.073	4.554
					(3.472)	(9.906)	(4.621)	(1.613)**
VA-M-L:					180.941	141.121	96.818	84.123
					(74.935)	(167.627)	(76.234)	(33.126)**
Land-Taxes:	2.801	2.553	3.992	- 1.191	2.957	3.748	3.537	- 0.580
	(0.493)	(2.013)	(1.831)	(0.366)***	(0.729)	(1.301)	(1.112)	(0.351)
Distortion-LT:					- 1.188	0.399	0.580	- 1.767
					(0.782)	(1.963)	(1.533)	(0.409)***
Railway:	0.003	0.002	0.0008	0.0024	0.015	0.008	0.009	0.006
	(0.006)	(0.004)	(0.001)	(0.0025)	(0.036)	(0.012)	(0.013)	(0.015)
Distortion-R:					0.010	0.004	- 0.003	0.013
					(0.036)	(0.013)	(0.019)	(0.015)
Sericulture:	0.396	0.386	0.212	0.185	0.402	0.409	0.223	0.179
	(0.027)	(0.271)	(0.187)	(0.033)***	(0.020)	(0.268)	(0.196)	(0.034)***
Wheat:	0.516	0.377	0.146	0.370	0.523	0.402	0.159	0.365
	(0.030)	(0.207)	(0.079)	(0.018)***	(0.022)	(0.202)	(0.087)	(0.017)***
Arboriculture:	0.409	0.408	0.708	- 0.299	0.391	0.395	0.695	- 0.304
	(0.016)	(0.109)	(0.140)	(0.024)***	(0.012)	(0.108)	(0.139)	(0.024)***
War:	0.009	0.005	0.003	0.007	0.005	0.003	0.006	- 0.001
	(0.023)	(0.013)	(0.006)	(0.009)	(0.008)	(0.007)	(0.012)	(0.004)
Distance-to-Enemy:	640	775.083	1143.083	- 503.083	504	673.694	983.139	- 479.139
	(223.471)	(197.401)	(285.051)	(102.860)***	(166.565)	(141.714)	(231.839)	(78.211)***
HW-Power:					2.977	4.537	1.433	1.544
					(1.316)	(5.223)	(1.493)	(0.592)**
Population-D:					560.821	92.099	146.128	414.693
					(89.603)	(46.963)	(106.513)	(40.660)***
Gini:					45.533	45.142	43.183	2.35
					(1.640)	(2.255)	(3.773)	(0.919)**
Wages:					1.006	0.958	0.963	0.043
					(0.050)	(0.100)	(0.118)	(0.028)
Ruggedness:					0.250	0.269	0.321	- 0.071
					(0)	(0.061)	(0.096)	(0.016)***
Number of observations	6	36	36		6	36	36	

Notes: 1. *GDP-L*, *Culture-L*, *Illiterates-L*, *VA-F-L*, *VA-C-L*, and *VA-M-L* label respectively the income per capita, our proxy for culture, the percentage of illiterates, and the value added in the foodstuff, clothing, and manufacturing sectors (see table 1).

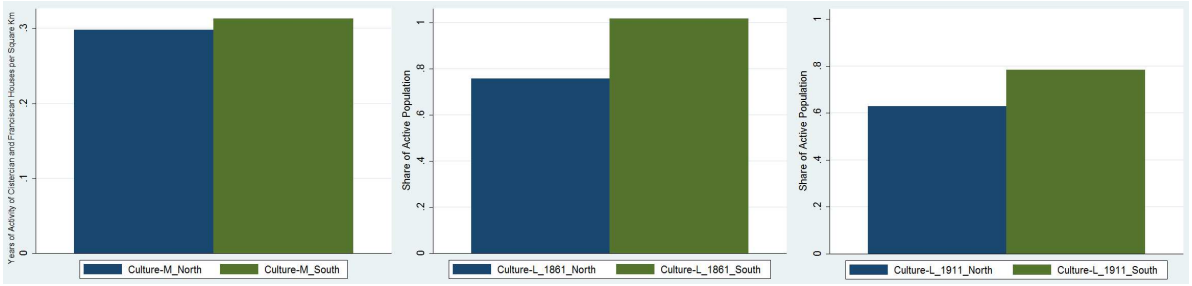
2. Columns (1) to (3) (columns (5) to (7)) report the mean value and, in parentheses, the standard deviation of each variable over the pre(post)-unitary sample in respectively the high, middle, and low political relevance group, whereas column (4) (column (8)) displays the difference between the mean of each variable in the high and low political relevance groups over the pre-unitary (post-unitary) sample and, in parentheses, its standard error. ***, **, and * denote a difference significant at respectively 1%, 5%, and 10% based on a t-test with unequal variances. The high (low) political relevance cluster includes Veneto (Apulia, Basilicata, Calabria, Campania, Lazio, and Sicily), whereas the middle one comprehends Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, and Umbria.

Figure 1: Land Property Taxes, Political Power, and Railway Diffusion



Note: 1. While "Political-Power" is the share of prime ministers born in the region as collected from Corbetta and Piretti (2008), the other variables are defined in table 1. The _North (_South or _L) cluster includes Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, Umbria (Apulia, Basilicata, Calabria, Campania, Lazio), and Veneto (Sicily). The _M (_H) group comprehends Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, and Umbria (Veneto), whereas the _KS one gathers Liguria, Piedmont, and Sardinia.

Figure 2: Culture



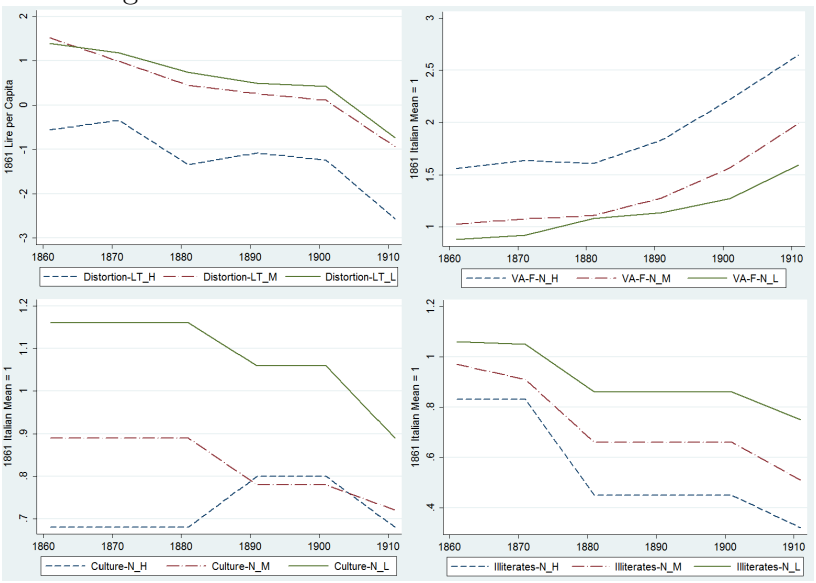
Note: 1. "Culture-M" is the average cumulated discounted number of years of activity of Cistercian and Franciscan houses per square km in every half-century between 1000 and 1600 (see for sources and construction Boranbay and Guerriero, [2016]). The series ending in _North (_South) average the values for Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, Umbria (Apulia, Basilicata, Calabria, Campania, Lazio), and Veneto (Sicily) except for "Culture-M_North," which does not include data for Umbria. In this case, Umbria is an outlier being the region of origin of Saint Francis and in turn of the Franciscans, which mainly expanded by building new houses in neighboring areas (Boranbay and Guerriero, 2016).

Table 3: Endogenous Taxation

	(1)	(2)	(3)	(4)	(5)	(6)
	1801-1851 sample			1861-1911 sample		
	The dependent variable is *Land-Taxes*					
Sericulture	- 5.563	2.113	3.329	- 17.520	- 16.236	- 12.214
	(11.908)	(10.167)	(9.552)	(16.801)	(9.866)	(10.131)
Sericulture^2	- 2.973	- 3.325	- 3.985	- 16.942	- 13.317	- 15.455
	(4.925)	(6.290)	(7.112)	(24.982)	(19.208)	(20.014)
Wheat	- 3.925	- 5.358	- 3.562	- 24.178	- 13.150	- 13.787
	(7.922)	(5.880)	(6.233)	(13.078)*	(10.640)	(10.065)
Wheat^2	16.017	5.302	4.339	41.756	38.242	39.441
	(7.166)**	(9.440)	(9.039)	(24.473)	(19.221)*	(19.536)*
Arboriculture	- 18.717	- 12.255	- 9.523	- 16.440	- 17.200	- 16.899
	(7.928)**	(5.116)**	(4.634)*	(23.146)	(20.510)	(22.270)
Arboriculture^2	16.363	11.329	12.519	31.278	32.124	31.377
	(6.817)**	(4.578)**	(7.041)*	(23.379)	(17.007)*	(17.020)*
War		- 13.119	- 11.020		65.296	79.169
		(24.637)	(30.611)		(74.961)	(81.546)
War^2		612.894	603.872		- 495.358	- 847.463
		(404.807)	(465.936)		(2192.198)	(2339.39)
Distance-to-Enemies			0.0016			0.002
			(0.0015)			(0.001)*
Distance-to-Enemies^2			- 6.42E^{-7}			- 6.03E^{-7}
			(5.27E^{-7})			(5.61E^{-7})
	Marginal effect of a rise in					
Sericulture	- 5.682	1.980	3.169	- 17.859	- 16.503	- 12.523
	(11.989)	(10.301)	(9.667)	(16.822)	(9.860)	(10.003)
Wheat	- 3.605	- 5.252	- 3.475	- 22.508	- 11.620	-12.209
	(7.983)	(5.932)	(6.279)	(12.783)	(10.665)	(9.951)
Arboriculture	- 12.172	- 7.724	- 4.515	- 4.555	- 4.993	- 4.975
	(5.669)**	(3.505)**	(2.600)*	(14.779)	(16.363)	(17.846)
War		- 13.119	- 11.020		60.342	70.694
		(24.637)	(30.611)		(53.258)	(58.365)
Distance-to-Enemies			0.0008			0.0012
			(0.0008)			(0.0006)**
Estimation			Fixed Region Effects OLS			
R^2	0.21	0.28	0.30	0.19	0.44	0.45
Number of observations	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. The marginal effects of a rise in *Sericulture*, *Wheat*, and *War* are calculated for an increase from their lowest South's value, i.e., 0.02, 0.01, and 0 (0.01, 0.02, 0.005) in the pre(post)-unitary sample. Those of a rise in *Arboriculture* and *Distance-to-Enemies* are calculated for an increase from their lowest North's value, i.e., 0.2 and 633 (0.19 and 504) in the pre(post)-unitary sample.

Figure 3: The Rise of the North-South Divide



Note: 1. "VA-F-N," "Culture-N," and "Illiterates-N" are respectively *VA-F-L*, *Culture-L*, and *Illiterates-L* normalized in such a way that their means for Italy in 1861 equal one (see table 2). The _H (_L) group comprehends Veneto (Apulia, Basilicata, Calabria, Campania, Lazio, and Sicily). The _M cluster includes Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, and Umbria.

Table 4: The Rise of the North-South Divide

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 33.293	- 6.046	32.667	- 8.312	- 15.307	- 31.970
	(14.403)**	(5.789)	(9.716)***	(18.036)	(33.142)	(45.739)
War^2	858.797	323.176	- 791.892	- 106.208	- 296.275	202.088
	(438.233)*	(170.550)*	(285.181)**	(538.006)	(970.158)	(1344.844)
P-value for farming productivity	[0.00]	[0.05]	[0.00]	[0.24]	[0.06]	[0.24]
	Marginal effect of a rise in					
War	- 24.705	- 2.814	24.749	- 9.374	- 18.270	- 29.949
	(10.085)**	(4.112)	(6.878)***	(12.708)	(23.558)	(32.330)
Estimation	Fixed Region Effects OLS					
R^2	0.51	0.17	0.71	0.33	0.41	0.40
Number of observations	78	78	78	78	78	78

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel B. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Distance-to-Enemies	- 0.0002	- 0.0001	- 0.00020	- 0.0001	0.0001	- $3.47E^{-6}$
	(0.0001)*	(0.0001)	(0.00004)***	(0.0001)	(0.0002)	(0.0002)
P-value for farming productivity	[0.00]	[0.18]	[0.00]	[0.00]	[0.00]	[0.00]
Estimation	Fixed Region Effects OLS					
R^2	0.45	0.09	0.48	0.21	0.30	0.27
Number of observations	78	78	78	78	78	78

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel C. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Distortion-LT	- 0.114	0.057	0.104	- 0.233	- 0.389	- 0.516
	(0.044)**	(0.036)	(0.024)***	(0.037)***	(0.084)***	(0.070)***
P-value for farming productivity	[0.00]	[0.47]	[0.01]	[0.05]	[0.00]	[0.00]
Estimation	Fixed Region Effects OLS					
R^2	0.55	0.20	0.71	0.63	0.52	0.70
Number of observations	78	78	78	78	78	78

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel D. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 36.950	- 13.099	25.707	3.951	6.740	1.111
	(14.122)**	(6.137)**	(7.733)***	(15.312)	(27.135)	(27.148)
War^2	1050.318	444.948	- 699.711	- 165.929	- 478.867	- 76.016
	(380.147)**	(204.899)**	(207.029)***	(403.550)	(717.284)	(727.375)
Distance-to-Enemies	- 0.0004	- 0.0001	- 0.00004	- 0.0002	- 0.0002	- 0.0002
	(0.0001)***	(0.0001)**	(0.00004)	(0.0001)**	(0.0002)	(0.0002)
Distortion-LT	- 0.090	0.052	0.077	- 0.229	- 0.344	- 0.512
	(0.051)*	(0.033)	(0.028)**	(0.050)***	(0.108)***	(0.100)***
P-value for farming productivity	[0.00]	[0.19]	[0.01]	[0.07]	[0.01]	[0.04]
	Marginal effect of a rise in					
War	- 26.447	- 8.650	18.710	2.292	1.952	0.351
	(10.403)**	(4.139)*	(5.694)***	(11.335)	(20.065)	(19.977)
Estimation	Fixed Region Effects OLS					
R^2	0.62	0.25	0.81	0.64	0.53	0.70
Number of observations	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. The proxies for farming productivity are *Sericulture*, *Wheat*, and *Arboriculture*.
3. The marginal effect of a rise in *War* is calculated for an increase from its post-unitary mean 0.005.

Table 5: The Rise of the North-South Divide — Robustness

	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 35.704	- 12.529	25.179	4.589	10.442	7.066
	(13.151)**	(5.875)**	(7.634)***	(14.876)	(26.489)	(25.093)
War^2	987.817	416.363	- 673.261	- 197.923	- 664.559	- 374.756
	(345.185)**	(181.718)**	(198.100)***	(384.194)	(695.866)	(671.662)
Distance-to-Enemies	- 0.0004	- 0.0001	- 0.00004	- 0.0002	- 0.0002	- 0.0002
	(0.0001)***	(0.0001)*	(0.00004)	(0.0001)**	(0.0001)	(0.0001)*
Distortion-LT	- 0.060	0.060	0.065	- 0.214	- 0.256	- 0.371
	(0.063)	(0.030)*	(0.034)*	(0.065)***	(0.157)	(0.103)***
HW-Power	0.015	0.007	- 0.006	0.007	0.043	0.070
	(0.009)	(0.007)	(0.004)	(0.007)	(0.025)	(0.015)***
P-value for farming productivity	[0.00]	[0.17]	[0.00]	[0.09]	[0.01]	[0.03]
	Marginal effect of a rise in					
War	- 25.826	- 8.366	18.447	2.609	3.796	3.318
	(9.800)**	(4.102)*	(5.690)***	(11.100)	(19.732)	(18.451)
Estimation	Fixed Region Effects OLS					
R^2	0.64	0.27	0.82	0.65	0.56	0.79
Number of observations	78	78	78	78	78	78
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel B. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 33.261	- 10.158	21.851	11.319	23.438	15.058
	(9.882)***	(7.828)	(7.086)***	(11.352)	(23.367)	(19.774)
War^2	974.025	384.113	- 619.957	- 318.329	- 824.223	- 364.484
	(300.216)***	(249.103)	(193.619)***	(301.087)	(645.350)	(561.905)
Distance-to-Enemies	- 0.0004	- 0.0001	- 0.00004	- 0.0002	- 0.0002	- 0.0002
	(0.0001)***	(0.0001)*	(0.00004)	(0.0001)***	(0.0001)	(0.0001)
Distortion-LT	- 0.076	0.063	0.062	- 0.201	- 0.279	- 0.458
	(0.066)	(0.041)	(0.030)*	(0.059)***	(0.143)*	(0.118)***
Population-D	0.001	0.001	- 0.0012	0.002	0.005	0.004
	(0.002)	(0.001)	(0.0004)***	(0.001)	(0.005)	(0.003)
P-value for farming productivity	[0.00]	[0.14]	[0.00]	[0.10]	[0.05]	[0.13]
	Marginal effect of a rise in					
War	- 23.521	- 6.316	15.651	8.136	15.196	11.414
	(7.001)***	(5.377)	(5.185)**	(8.421)	(17.018)	(14.362)
Estimation	Fixed Region Effects OLS					
R^2	0.63	0.28	0.84	0.68	0.57	0.73
Number of observations	78	78	78	78	78	78
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel C. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 43.865	- 7.678	23.231	5.733	3.586	5.303
	(18.342)**	(6.882)	(8.282)**	(18.303)	(40.836)	(34.085)
War^2	1264.955	276.684	- 622.857	- 221.240	- 380.952	- 206.138
	(497.536)**	(217.788)	(225.308)**	(499.649)	(1132.655)	(941.564)
Distance-to-Enemies	- 0.0003	- 0.0002	$4.92E^{-6}$	- 0.0002	- 0.0001	- 0.0003
	(0.0001)**	(0.0001)**	(0.00003)	(0.0001)*	(0.0004)	(0.0002)
Distortion-LT	- 0.082	0.046	0.080	- 0.231	- 0.340	- 0.517
	(0.061)	(0.030)	(0.026)***	(0.054)***	(0.127)**	(0.107)***
Gini	0.019	- 0.015	0.007	- 0.005	0.009	- 0.012
	(0.011)*	(0.009)	(0.004)	(0.013)	(0.046)	(0.027)
P-value for farming productivity	[0.27]	[0.75]	[0.01]	[0.35]	[0.23]	[0.19]
	Marginal effect of a rise in					
War	- 31.215	- 4.911	17.002	3.520	- 0.224	3.242
	(13.432)**	(4.742)	(6.051)**	(13.362)	(29.570)	(24.753)
Estimation	Fixed Region Effects OLS					
R^2	0.65	0.32	0.82	0.65	0.53	0.71
Number of observations	78	78	78	78	78	78
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel D. The dependent variable is:					
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 32.414	- 12.447	23.783	6.638	8.526	6.654
	(11.352)**	(4.961)**	(7.162)***	(14.352)	(26.140)	(26.077)
War^2	854.072	416.751	- 616.461	- 282.201	- 556.118	- 315.868
	(306.926)**	(151.299)**	(193.776)***	(380.063)	(681.440)	(699.123)
Distance-to-Enemies	- 0.0004	- 0.0001	- 0.00005	- 0.0002	- 0.0001	- 0.0002
	(0.0001)***	(0.0001)**	(0.00004)	(0.0001)**	(0.0002)	(0.0002)
Distortion-LT	- 0.086	0.053	0.075	- 0.227	- 0.342	- 0.507
	(0.040)**	(0.030)*	(0.024)***	(0.047)***	(0.106)***	(0.085)***
Wages	0.822	0.118	- 0.349	0.487	0.324	1.004
	(0.230)***	(0.374)	(0.160)**	(0.436)	(0.684)	(0.479)*
P-value for farming productivity	[0.00]	[0.16]	[0.01]	[0.09]	[0.01]	[0.01]
	Marginal effect of a rise in					
War	- 23.874	- 8.280	17.618	3.816	2.964	3.495
	(8.360)**	(3.497)**	(5.262)***	(10.638)	(19.460)	(19.192)
Estimation	Fixed Region Effects OLS					
R^2	0.65	0.25	0.83	0.65	0.53	0.71
Number of observations	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. The proxies for farming productivity are *Sericulture*, *Wheat*, and *Arboriculture*.
3. The marginal effect of a rise in *War* is calculated for an increase from its post-unitary mean 0.005.

Table 6: Using Selection on Observables to Assess the Bias from Unobservables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	The dependent variable is:							
	Land-Taxes		*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
The ratio is calculated for the variable:								
Sericulture								
$Sericulture^2$								
Arboriculture	3.486							
$Arboriculture^2$	10.520							
War			28.655	21.981	47.688	7.193	2.821	1.187
War^2			15.805	14.566	25.454	6.186	3.579	1.254
Distance-to-Enemies		1.500	41	12	21	98.500	16	23
$Distance\text{-}to\text{-}Enemies^2$		2.741						
Distortion-LT			2	4.714	5.417	14.267	6.327	2.631
The extra controls in the full set are {*Sericulture*, $Sericulture^2$, *Wheat*, $Wheat^2$, *Arboriculture*, $Arboriculture^2$, *War*, War^2},	NO	YES	NO	NO	NO	NO	NO	NO
{*Distance-to-Enemies*, $Distance\text{-}to\text{-}Enemies^2$},	YES	NO	NO	NO	NO	NO	NO	NO
{*HW-Power*}.	NO	NO	YES	YES	YES	YES	YES	YES

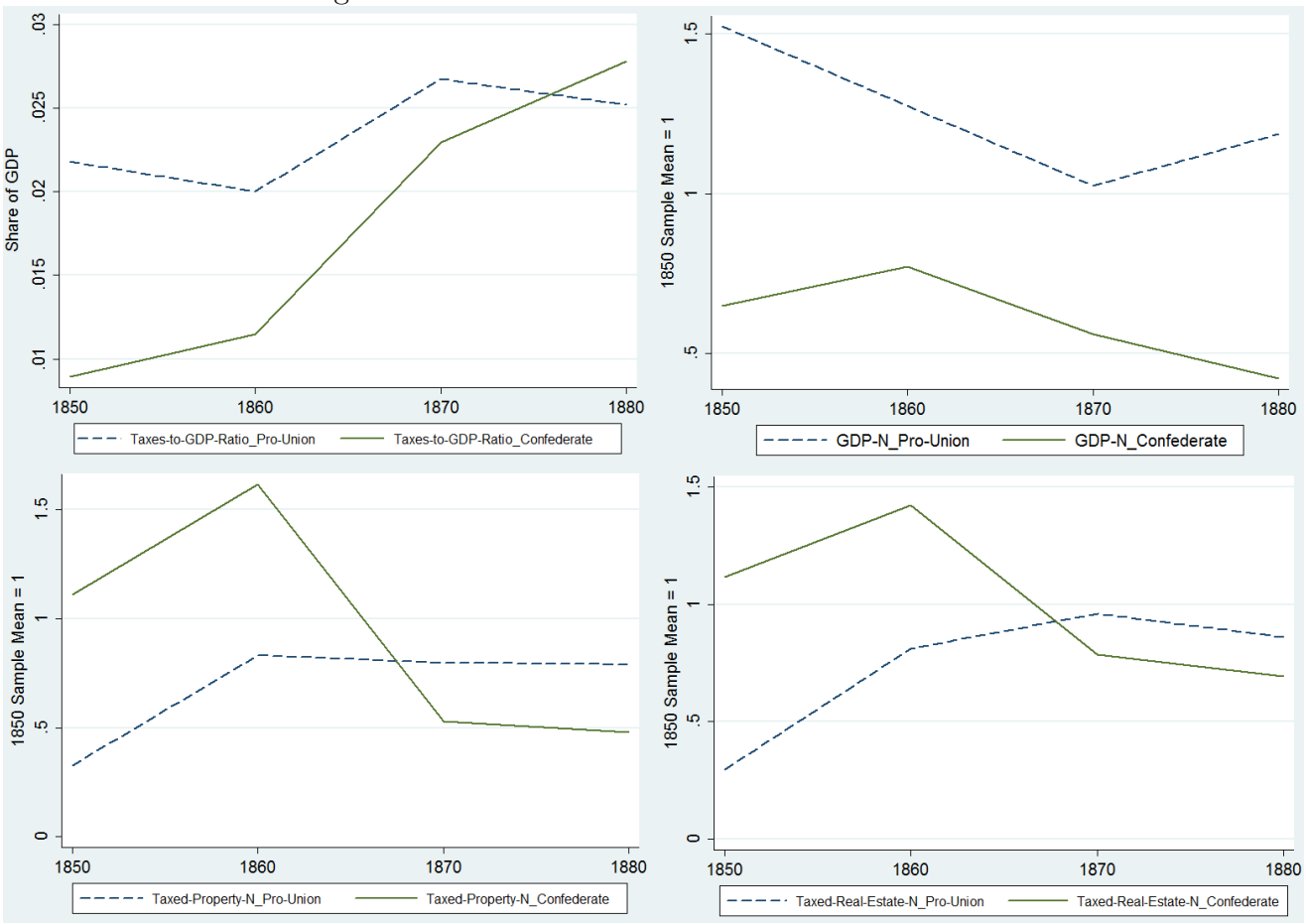
Notes: 1. The indexes listed in column (1) (columns (2) to (8)) are obtained from regressions run on the pre(post)-unitary sample.
2. Each cell reports an index constructed as explained in section 5.4.2 and based on the coefficients attached to the relevant variable and obtained from two regressions, one with a "restricted set" of covariates and another with a "full set" of covariates. The regressors included in the restricted sets of covariates are: 1. those incorporated in the specification reported in column (2) of table 3 in the case of column (1) of the present table; 2. *Distance-to-Enemies*, $Distance\text{-}to\text{-}Enemies^2$, and region fixed effects in the case of column (2) of the present table; 3. those considered in panel D of table 4 in the cases of columns (3) to (8) of the present table. The extra variables, possibly included in the full set of covariates, are listed in the last three rows of the present table. The sample size is always 78.

Table 7: Endogenous Public Good Provision

	(1)	(2)	(3)	(4)	(5)	(6)
	1801-1851 sample			1861-1911 sample		
	The dependent variable is *Railway*					
Sericulture	- 0.165	- 0.126	- 0.139	- 0.356	- 0.397	- 0.404
	(0.085)*	(0.084)	(0.087)	(0.330)	(0.337)	(0.340)
$Sericulture^2$	0.058	0.070	0.069	0.240	0.236	0.234
	(0.037)	(0.036)*	(0.038)*	(0.224)	(0.230)	(0.225)
Wheat	0.177	0.172	0.172	0.040	0.129	0.218
	(0.081)**	(0.077)**	(0.078)**	(0.303)	(0.321)	(0.319)
$Wheat^2$	- 0.037	- 0.113	- 0.111	- 0.322	- 0.341	- 0.396
	(0.045)	(0.049)**	(0.049)**	(0.247)	(0.257)	(0.254)
Arboriculture	- 0.077	- 0.049	- 0.078	0.083	0.055	- 0.091
	(0.082)	(0.080)	(0.083)	(0.302)	(0.307)	(0.324)
$Arboriculture^2$	0.152	0.101	0.136	0.121	0.085	0.137
	(0.065)**	(0.063)	(0.074)*	(0.277)	(0.295)	(0.291)
War		0.357	0.312		- 0.958	- 1.150
		(0.397)	(0.428)		(1.087)	(1.072)
War^2		- 2.184	- 1.896		22.050	27.382
		(5.695)	(6.082)		(29.122)	(28.748)
Distance-to-Enemies			- $9.22E^{-6}$			- 0.0001
			($9.95E^{-6}$)			(0.00005)*
$Distance\text{-}to\text{-}Enemies^2$			$5.14E^{-9}$			$4.35E^{-8}$
			($4.07E^{-9}$)			($2.24E^{-8}$)*
P-value for *Ruggedness* × *decade dummies*	[0.52]	[0.90]	[0.79]	[0.92]	[0.93]	[0.99]
	Marginal effect of a rise in					
Sericulture	- 0.162	- 0.124	- 0.136	- 0.351	- 0.392	- 0.400
	(0.085)*	(0.084)	(0.087)	(0.330)	(0.336)	(0.339)
Wheat	0.176	0.170	0.169	0.027	0.115	0.203
	(0.081)**	(0.077)**	(0.078)**	(0.301)	(0.319)	(0.317)
Arboriculture	- 0.016	- 0.008	- 0.024	0.129	0.087	- 0.039
	(0.082)	(0.079)	(0.081)	(0.274)	(0.281)	(0.297)
War		0.357	0.312		- 0.737	- 0.876
		(0.397)	(0.428)		(0.807)	(0.796)
Distance-to-Enemies			- $2.70E^{-6}$			- 0.0001
			($5.65E^{-6}$)			(0.00003)**
Estimation	Fixed Region Effects OLS					
R^2	0.71	0.75	0.76	0.76	0.77	0.79
Number of observations	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. The marginal effects of a rise in *Sericulture*, *Wheat*, and *War* are calculated for an increase from their lowest South's value, i.e., 0.02, 0.01, and 0 (0.01, 0.02, 0.005) in the pre(post)-unitary sample. Those of a rise in *Arboriculture* and *Distance-to-Enemies* are calculated for an increase from their lowest North's value, i.e., 0.2 and 633 (0.19 and 504) in the pre(post)-unitary sample.

Figure 4: The Case of the American Civil War



Note: 1. "Taxes-to-GDP-Ratio" ("GDP-N") is collected from Secretary of the Interior (1850, 1860, 1870, 1880) (Lindert and Williamson, 2013; Klein, 2013) and represents the ratio of total taxes to GDP (GDP in 1860 dollars per capita normalized in such a way that its mean over the sample in 1850 is one). "Taxed-Property-N" ("Taxed-Real-Estate-N") is collected from Secretary of the Interior (1850, 1860, 1870, 1880) and represents the assessed valuation of taxed real and personal property (real estate and improvements) per capita in 1860 dollars normalized in such a way that its mean over the sample in 1850 is one. The _Pro-Union (_Confederate) group includes Colorado, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Utah (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia), and Washington (West Virginia).

APPENDIX (FOR ONLINE PUBLICATION)

Establishing the Exogeneity of *War*

Next, we explain why *War* should be correctly considered exogenous.

Austro-Sardinian War

"Since his accession to the throne, Charles Albert worked to restore [his] preeminence in Italy. In his mind, the enemy was Austria" [Paoletti 2008, p. 95], and the Spring of Nations became the "opportunity [he] had waited earnestly" [Paoletti 2008, p. 94]. Once the revolutionaries expelled the Austrians from Milan in March 1848, he "moved his troops into Lombardy" [Killinger 2002, p. 107]. "The Italian population enthusiastically supported [the Kingdom of Sardinia's] intervention" [Paoletti 2008, p. 96] knowing that the Austrian army "could not get reinforcements [...] because of the revolution in Vienna" [Paoletti 2008, p. 96]. Lacking an autonomous foreign policy, the Italian rules first joined the conflict scared by the threat of internal unrests and then immediately abandoned it as soon as Austria tamed the turmoils in Vienna (Killinger, 2002). As a result, the Kingdom of Sardinia was constrained to sign a truce in July 1848. Hence, all the pre-unitary states' actions were ultimately driven by the strategic moves of either the Kingdom of Sardinia or Austria.

Roman Republic War

Despite the fact that Pope Pius IX had granted his own constitution on February 14 1848, the radical liberals expelled him in the aftermath of the truce the Kingdom of Sardinia reached with Austria and declared in November 1848 the Roman Republic. This decision ignited the reactions of the conservative elite and of Catholic powers who sought to restore Pope's rule. In particular, "in a politically calculated attempt to win support of French Catholics, Louis Napoleon ordered his armies to restore the Pope to power" [Killinger 2002, p. 109]. Meanwhile, Austria defeated the Kingdom of Sardinia in Novara on March 1849, reinstating its power over Italy. In June 1849 a French force invaded the Papal State and defeated the "weak and ill-equipped [Roman Republican army]" [Riall 2009, p. 23] . Again, none of the pre-unitary elites could shape the fate of the conflict.

Neapolitan and Italian-Roman Wars

In the aftermath of the 1848 unrests, the Bourbons "concentrated all [their effort] on domestic affairs. [The] army was now intended to be more of a large, well-armed constabulary force" [Paoletti 2008, p. 102]. As a result, after the royal forces crushed a revolt in Palermo, "Francesco Crispi, one of the revolutionaries, urged Garibaldi to intervene" [Paoletti 2008, p. 110] sure that the Bourbons could be overturned. Garibaldi assembled a group of volunteers, who departed from Genoa and reached Sicily in May 1860. Their arrival ignited a large scale revolt to which the Bourbons did not react because scared by "an interposition by US, French, and British" [Paoletti 2008, p. 110]. Garibaldi's swift conquest of Sicily worried the European powers and the Kingdom of Sardinia "that the guerrilla leader might move on Naples, Rome, and Venice" [Killinger 2002, p. 116]. Garibaldi's conquest of Naples confirmed these suspects and forced Victor Emanuel II to try to stop him before he could put the independence at jeopardy (Paoletti, 2008). With French approval, Kingdom of Sardinia's forces moved into the Papal State in September 1860 firing up the Italian-Roman War. The conflict ended a few months later with the Kingdom of Sardinia's conquest of Marche and Umbria and the meeting between Garibaldi and Victor Emanuel II, who was then proclaimed King of Italy (Killinger, 2002). All in all, it is clear that both wars were guided by the expansionist aims of the Kingdom of Sardinia and the French foreign policy and only barely modulated by the—lack of—adequate reactions by both the Kingdom of Two Sicilies and the Papal State.

Seven Weeks War

"In 1866, Prusso-Austrian competition for supremacy in Germany reached its zenith. Prussian chancellor Otto von Bismarck forced Austria to declare war on Prussia. [In] Bismarck's opinion [...], it was better to have Italy as an ally, because it prevented Austria from concentrating its entire army against Prussia" [Paoletti 2008, p. 117]. Involved in this conflict, the Kingdom of Italy bore a series of grim defeats until Prussia's victory and the consequent armistice left it alone on the battlefront; at that point "Italy had no choice but accept [the end of the war], or face Austria alone" [Paoletti 2008, p. 118]. As a result of the Peace of Prague, Italy gained control of Venice. All in all, the Kingdom of Italy did not control either the timing of the war nor any of its consequences.

Supplementary Tables

Table I: Summary of Variables

			(1)	(2)	(3)
	Variable	Definition and Sources	1801-1851	1861-1911	Δ
Economic outcomes:	*Agriculture*:	Ratio of gross saleable annual farming product per employee, normalized in such a way that its mean for Italy in 1861 is 100, to its 1861 value. Source: Federico (2007).		1.123 (0.278)	
	Life:	Ratio of life expectancy in years to its 1861 value. Source: Felice and Vasta (2015).		1.166 (0.176)	
	Height:	Ratio of the height of conscripted workers in cm to its 1861 value. Source: Vecchi (2011).		1.007 (0.006)	
	VAP-F:	Ratio of value added in the foodstuff sector in millions of 1861 lire per capita to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.016 (0.170)	
	VAP-C:	Ratio of value added in the clothing sector in millions of 1861 lire per capita to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.277 (0.387)	
	VAP-M:	Ratio of value added in the manufacturing sector in millions of 1861 lire per capita to its 1861 value. Source: Ciccarelli and Fenoaltea (2013).		1.273 (0.354)	
	Pop-Density:	Ratio of the population density to its 1861 value. Source: SVIMEZ (2011).		1.220 (0.193)	
Tax policies:	*Land-Taxes-K*:	Land property tax revenues per square km of arable land in 1861 lire. Source: see text.	456.181 (342.565)	711.812 (384.877)	- 255.631 (58.340)***
	Distortion-LT-K:	Difference between *Land-Taxes-K* and land property tax revenues per square km of arable land in 1861 lire forecasted through pre-unitary estimates.		132.841 (477.206)	
Farming technology:	*Citrus*:	Normalized first principal component extracted from the land suitability for citrus ranging between 0 and 100 and the average growing season temperature in Celsius degrees in the previous decade. Sources: see text.	0.678 (0.200)	0.654 (0.200)	0.024 (0.032)
	Olive:	Normalized first principal component extracted from the land suitability for olives ranging between 0 and 100 and the average growing season temperature in Celsius degrees in the previous decade. Sources: see text.	0.453 (0.221)	0.432 (0.221)	0.021 (0.035)
Other drivers of taxation:	*War-C*:	Share of years from the Congress of Vienna in which the state to which the region belonged partook in external wars. Source: Correlates of War Project, http://www.correlatesofwar.org/	0.001 (0.003)	0.008 (0.003)	- 0.007 (0.000)***
	Distance-to-Enemies-P:	(Average) distance in km between the region's main city and Istanbul between 1801 and 1815 (Amsterdam, Copenhagen, and Istanbul between 1816 and 1882 and Amsterdam, Copenhagen, Istanbul, Lisbon, and Madrid between 1883 and 1914). Source: Galasso (2011).	1365.803 (156.292)	1465.145 (149.035)	- 99.342 (24.453)***
Other controls:	*Democracy-M*:	Constraints on the elite's power averaged over the 1000-1600 period. Source: Boranbay and Guerriero (2016).		1.982 (1.023)	

Note: 1. Columns (1) and (2) report the mean value and, in parentheses, the standard deviation of each variable over the pre-unitary and post-unitary sample respectively. Column (3) lists instead the differences between the means of each variable over the pre-unitary and post-unitary samples and, in parentheses, their standard error. ***, **, and * denote a difference significant at respectively 1%, 5%, and 10% based on a t-test with unequal variances.

Table II: High Versus Low Political Relevance Regions — Further Evidence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1801-1851 sample				1861-1911 sample			
	High	Middle	Low	High - Low	High	Middle	Low	High - Low
	Political Relevance				Political Relevance			
Agriculture-L:					66.567	80.706	96.644	- 30.078
					(18.190)	(17.071)	(27.803)	(8.753)***
Life-L:					41.133	38.144	35.706	5.428
					(6.826)	(5.064)	(5.365)	(2.927)
Height-L:					166.079	163.709	161.656	4.423
					(0.805)	(1.429)	(1.385)	(0.402)***
VAP-F-L:					0.017	0.015	0.016	0.001
					(0.002)	(0.006)	(0.003)	(0.001)
VAP-C-L:					0.003	0.005	0.003	0.0002
					(0.001)	(0.002)	(0.001)	(0.0003)
VAP-M-L:					0.058	0.058	0.050	0.009
					(0.015)	(0.030)	(0.016)	(0.007)
Land-Taxes-K:	638.840	411.770	470.149	168.692	981.036	814.120	564.633	416.403
	(163.337)	(336.458)	(364.976)	(90.259)*	(171.793)	(389.399)	(352.942)	(91.537)***
Distortion-LT-K:					- 155.922	- 169.652	483.460	- 639.382
					(204.304)	(429.894)	(274.533)	(95.133)***
Citrus:	0.449	0.539	0.856	- 0.407	0.415	0.515	0.833	- 0.418
	(0.030)	(0.139)	(0.086)	(0.019)***	(0.022)	(0.137)	(0.085)	(0.017)***
Olive:	0.250	0.297	0.642	- 0.392	0.221	0.277	0.622	- 0.401
	(0.025)	(0.106)	(0.166)	(0.029)***	(0.018)	(0.105)	(0.165)	(0.028)***
War-C:	0.003	0.001	0.001	0.002	0.013	0.007	0.008	0.005
	(0.006)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	(0.001)***
Distance-to-Enemy-P:	1260.444	1353.519	1395.648	- 135.204	1304.356	1374.415	1582.674	- 278.319
	(135.985)	(119.544)	(183.938)	(63.418)*	(102.006)	(90.271)	(110.105)	(45.508)***
Democracy-M:					3.846	2.551	1.103	2.744
					(0)	(0.724)	(0.233)	(0.039)***
Number of observations	6	36	36		6	36	36	

Notes: 1. *Agriculture-L*, *Life-L*, *Height-L*, *VAP-F-L*, *VAP-C-L*, and *VAP-M-L* label respectively the saleable annual farming product per employee, the life expectancy, the height of conscripted workers, and the value added per capita in the foodstuff, clothing, and manufacturing sectors (see table 1).

2. Columns (1) to (3) (columns (5) to (7)) report the mean value and, in parentheses, the standard deviation of each variable over the pre(post)-unitary sample in respectively the high, middle, and low political relevance group, whereas column (4) (column (8)) displays the difference between the mean of each variable in the high and low political relevance groups over the pre-unitary (post-unitary) sample and, in parentheses, its standard error. ***, **, and * denote a difference significant at respectively 1%, 5%, and 10% based on a t-test with unequal variances. The high (low) political relevance cluster includes Veneto (Apulia, Basilicata, Calabria, Campania, Lazio, and Sicily), whereas the middle one comprehends Abruzzi, Emilia Romagna, Lombardy, Marche, Tuscany, and Umbria.

Table III: Employing Land Property Taxes per Square km of Arable Land

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				The dependent variable is:				
	Land-Taxes-K		*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Sericulture	717.829	- 2043.419						
	(1444.396)	(2936.172)						
Sericulture^2	- 705.872	201.020						
	(697.323)	(4224.701)						
Wheat	- 695.852	- 3483.72						
	(1357.697)	(2086.138)						
Wheat^2	393.352	4755.859						
	(663.209)	(3806.91)						
Arboriculture	- 2843.775	- 4395.597						
	(1288.652)**	(4920.322)						
Arboriculture^2	2518.692	5332.121						
	(1223.522)*	(3681.954)						
War	6136.935	7283.011	- 42.588	- 9.608	30.504	- 8.913	- 17.889	- 26.691
	(3921.993)	(16273.98)	(12.481)***	(5.340)*	(8.459)***	(13.394)	(29.660)	(28.695)
War^2	29613.64	- 93223.13	1116.142	402.957	- 755.537	- 24.271	- 173.949	224.368
	(60173.87)	(469975.6)	(366.818)***	(169.653)**	(243.952)***	(384.912)	(846.861)	(834.385)
Distance-to-Enemies	0.336	0.638	- 0.0004	- 0.0001	- 0.00004	- 0.0002	- 0.0002	- 0.0002
	(0.241)	(0.226)**	(0.0001)***	(0.0001)*	(0.00005)	(0.0001)**	(0.0002)	(0.0001)
Distance-to-Enemies^2	- 0.00009	- 0.0002						
	(0.00009)	(0.0001)*						
Distortion-LT-K			- 0.0003	0.0001	0.0002	- 0.0009	- 0.0007	- 0.002
			(0.0003)	(0.0002)	(0.0001)*	(0.0003)***	(0.0007)	(0.001)***
Estimation				Fixed Region Effects OLS				
R^2	0.73	0.24	0.59	0.20	0.75	0.51	0.43	0.58
Number of observations	78	78	78	78	78	78	78	78

Notes: 1. While the first column is based on pre-unitary data, the other columns are built on post-unitary data.

2. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.

3. The specifications in columns (3) to (8) also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table IV: Cross-Validating the Proxies for the Regional Productivity

Sericulture	0.24**			
Wheat		0.21*		
Citrus			0.31***	
Olive				0.53***
Arboriculture			0.16	0.49***
	Silk-P	*Wheat-P*	*Citrus-P*	*Olive-P*

Notes: 1. *Silk-P* (*Wheat-P*) represents the production of silk (wheat) in kg (hectoliters) per kg of silkworm incubated (cultivated hectare), whereas *Citrus-P* (*Olive-P*) is the number of citrus fruits (production of olive oil in hectoliters) per tree (cultivated hectare). All these variables are collected from MAIC (1864, 1881, 1892, 1900, and 1912).
2. The entries are partial correlations obtained removing decade fixed effects. *** labels significant at the 1% confidence level; **, 5%; *, 10%. The sample consists of 78 observations.

Table V: Alternative Proxies for Regional Productivity

	(1)	(2)	(3)	(4)
	1801-1851 sample		1861-1911 sample	
	The dependent variable is *Land-Taxes*			
Sericulture	0.650	- 2.146	- 12.387	- 14.177
	(10.535)	(7.980)	(11.415)	(10.775)
Sericulture^2	- 3.258	- 2.114	- 12.516	- 15.129
	(7.282)	(5.962)	(17.246)	(19.821)
Wheat	- 1.924	0.172	- 11.619	- 10.710
	(6.608)	(5.973)	(10.220)	(9.826)
Wheat^2	4.169	3.131	39.744	39.874
	(9.554)	(8.188)	(17.313)**	(19.399)*
Citrus	- 6.438		10.272	
	(3.438)*		(17.176)	
Citrus^2	5.872		- 1.971	
	(3.295)*		(15.455)	
Olive		- 11.272		- 0.306
		(4.105)**		(10.265)
Olive^2		13.637		12.823
		(6.388)*		(14.135)
War	- 11.335	- 6.096	86.308	71.156
	(30.214)	(32.073)	(90.928)	(89.638)
War^2	611.169	503.68	- 1126.66	- 638.227
	(472.460)	(497.178)	(2594.714)	(2567.808)
Distance-to-Enemies	0.001	0.0008	0.003	0.002
	(0.001)	(0.0011)	(0.001)*	(0.001)*
Distance-to-Enemies^2	- 5.11E^{-7}	- 2.80E^{-7}	- 1.02E^{-6}	- 8.82E^{-7}
	(4.53E^{-7})	(3.80E^{-7})	(6.25E^{-7})	(5.77E^{-7})
Estimation	Fixed Region Effects OLS			
R^2	0.30	0.35	0.44	0.45
Number of observations	78	78	78	78

Note: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.

Table VI: An Alternative Proxy for the Marginal Tax-collection Costs

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	The dependent variable is:							
	Land-Taxes		*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Sericulture	1.081	2.004						
	(9.679)	(9.114)						
Sericulture^2	- 3.990	- 5.869						
	(6.800)	(12.079)						
Wheat	- 2.808	- 17.101						
	(6.204)	(9.339)*						
Wheat^2	5.687	20.565						
	(8.954)	(11.704)*						
Arboriculture	- 10.874	- 36.558						
	(4.667)**	(13.052)**						
Arboriculture^2	14.475	14.934						
	(6.909)*	(14.108)						
War-C	- 13.672	648.881	- 223.365	169.987	40.888	- 201.454	- 641.306	- 419.023
	(114.461)	(212.566)***	(115.775)*	(45.129)***	(41.133)	(84.890)**	(253.295)**	(179.805)**
War-C^2	5728.218	- 9281.457	5270.58	- 7309.777	751.291	6754.012	22761.05	12736.65
	(6117.573)	(11533.590)	(4055.205)	(1684.091)***	(1338.027)	(2792.416)**	(8297.393)**	(5836.71)**
Distance-to-Enemies	0.002	0.0007	- 0.0004	- 0.00007	- 0.00010	- 0.0003	- 0.0003	- 0.0004
	(0.001)	(0.0008)	(0.0001)***	(0.00006)	(0.00003)***	(0.00006)***	(0.0002)*	(0.0001)***
Distance-to-Enemies^2	- 5.84E^{-7}	- 1.49E^{-7}						
	(5.34E^{-7})	(3.87E^{-7})						
Distortion-LT-K			0.056	0.017	0.021	- 0.136	- 0.107	- 0.274
			(0.092)	(0.025)	(0.044)	(0.081)	(0.173)	(0.143)*
Estimation	Fixed Region Effects OLS							
R^2	0.29	0.73	0.70	0.49	0.82	0.71	0.65	0.77
Number of observations	78	78	78	78	78	78	78	78

Notes: 1. While the first column is based on pre-unitary data, the other columns are built on post-unitary data.
2. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
3. The specifications in columns (3) to (8) also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table VII: Endogenous Taxation and the Rise of the North-South Divide — Placebo

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				The dependent variable is:				
	Land-Taxes		*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Sericulture	1.621	- 19.392						
	(6.409)	(15.168)						
Sericulture^2	- 2.138	- 18.013						
	(6.246)	(20.059)						
Wheat	- 4.591	- 6.112						
	(4.270)	(16.215)						
Wheat^2	4.195	42.563						
	(9.054)	(19.669)**						
Arboriculture	5.040	- 18.570						
	(6.947)	(21.209)						
Arboriculture^2	- 7.134	36.544						
	(7.187)	(17.724)*						
War	- 13.073	- 2.422	- 25.124	- 21.778	20.928	3.954	9.901	7.082
	(25.268)	(130.331)	(13.928)*	(9.468)**	(10.629)*	(18.104)	(40.704)	(31.352)
War^2	602.458	1244.548	764.431	637.929	- 592.569	- 173.885	- 557.020	- 220.867
	(425.588)	(3387.64)	(379.444)*	(258.981)**	(269.120)**	(474.466)	(998.562)	(806.121)
Distance-to-Enemies-P	- 0.002	- 0.023	0.00003	- 0.0008	- 0.0004	- 0.0004	- 0.0001	- 7.06E^{-6}
	(0.003)	(0.019)	(0.0004)	(0.0005)	(0.0004)	(0.0007)	(0.001)	(0.001)
Distance-to-Enemies-P^2	3.33E^{-7}	6.69E^{-6}						
	(1.04E^{-6})	(6.55E^{-6})						
Distortion-LT-K			- 0.102	0.042	0.072	- 0.238	- 0.349	- 0.518
			(0.053)*	(0.032)	(0.026)**	(0.051)***	(0.107)***	(0.100)***
Estimation				Fixed Region Effects OLS				
R^2	0.42	0.47	0.58	0.27	0.82	0.64	0.53	0.70
Number of observations	78	78	78	78	78	78	78	78

Notes: 1. While the first column is based on pre-unitary data, the other columns are built on post-unitary data.
2. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
3. The specifications in columns (3) to (8) also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table VIII: Allowing for Spatial Correlation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				The dependent variable is:				
	Land-Taxes		*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Sericulture	3.329	- 12.214						
	(6.554)	(8.090)						
Sericulture^2	- 3.985	-15.455						
	(4.679)	(17.373)						
Wheat	- 3.562	- 13.787						
	(4.538)	(5.497)***						
Wheat^2	4.339	39.441						
	(5.933)	(17.221)**						
Arboriculture	- 9.523	- 16.899						
	(4.125)**	(14.889)						
Arboriculture^2	12.519	31.377						
	(6.855)*	(10.685)***						
War	- 11.020	79.169	- 36.950	- 13.099	25.707	3.951	6.740	1.111
	(30.902)	(70.326)	(12.076)***	(4.926)**	(5.373)***	(12.720)	(18.287)	(19.847)
War^2	603.872	- 847.463	1050.319	444.948	- 699.711	- 165.929	- 478.867	- 76.016
	(483.087)	(2005.941)	(330.384)***	(175.653)**	(152.567)***	(337.475)	(473.246)	(532.983)
Distance-to-Enemies	0.002	0.002	- 0.0004	- 0.00012	- 0.00004	- 0.0002	- 0.0002	- 0.0002
	(0.001)	(0.001)**	(0.0001)***	(0.00004)***	(0.00003)	(0.0001)**	(0.0002)	(0.0002)
Distance-to-Enemies^2	- 6.42E^{-7}	- 6.03E^{-7}						
	(3.90E^{-7})***	(3.52E^{-7})*						
Distortion-LT-K			- 0.090	0.052	0.077	- 0.229	- 0.344	- 0.512
			(0.039)**	(0.033)	(0.026)**	(0.034)***	(0.068)***	(0.074)***
Estimation				Fixed Region Effects OLS				
Number of observations	78	78	78	78	78	78	78	78

Notes: 1. While the first column is based on pre-unitary data, the other columns are built on post-unitary data.
2. Conley's (1999) standard errors in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
3. The specifications in columns (3) to (8) also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table IX: Focusing on the 1871-1911 Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				The dependent variable is:			
	Land-Taxes	*GDP*	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
Sericulture	- 21.663						
	(15.532)						
Sericulture^2	- 9.074						
	(19.508)						
Wheat	- 7.475						
	(14.131)						
Wheat^2	30.640						
	(20.588)						
Arboriculture	- 1.882						
	(17.645)						
Arboriculture^2	38.824						
	(13.925)**						
War	10.142	- 15.106	- 5.042	6.792	14.503	52.084	50.324
	(43.295)	(10.205)	(5.988)	(1.910)***	(4.941)**	(43.276)	(18.601)**
Distance-to-Enemies	0.003	- 0.0004	- 0.0001	- 0.00004	- 0.0002	- 0.0001	- 0.0001
	(0.001)**	(0.0001)***	(0.0001)	(0.00002)*	(0.0001)**	(0.0002)	(0.0002)
Distance-to-Enemies^2	- 1.25E^{-6}						
	(5.70E^{-7})**						
Distortion-LT-K		- 0.095	0.069	0.045	- 0.263	- 0.373	- 0.590
		(0.050)*	(0.045)	(0.020)**	(0.047)***	(0.090)***	(0.128)***
Estimation				Fixed Region Effects OLS			
R^2	0.42	0.75	0.22	0.91	0.71	0.61	0.79
Number of observations	65	65	65	65	65	65	65

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. We never consider War^2 to avoid multicollinearity. In addition, the specifications in columns (2) to (7) also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table X: Other Measures of Economic Development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				The dependent variable is:			
	Agriculture	*Life*	*Height*	*VAP-F*	*VAP-C*	*VAP-M*	*Pop-Density*
War	- 18.614	- 10.401	- 0.292	13.015	8.442	7.583	- 12.827
	(10.934)	(6.837)	(0.289)	(7.069)*	(16.335)	(13.872)	(7.810)
War^2	507.191	196.782	2.666	- 341.848	- 395.386	- 216.413	262.214
	(262.972)*	(191.975)	(7.931)	(186.074)*	(445.019)	(379.432)	(210.424)
Distance-to-Enemies	- 0.0004	- 0.00010	5.66E^{-7}	- 0.0002	- 0.0002	- 0.0002	0.00013
	(0.0001)***	(0.00003)**	(1.98E^{-6})	(0.0001)***	(0.0001)**	(0.0001)**	(0.00005)**
Distortion-LT	- 0.095	- 0.074	- 0.003	- 0.096	- 0.166	- 0.276	- 0.097
	(0.040)**	(0.028)**	(0.001)***	(0.030)***	(0.060)**	(0.054)***	(0.028)***
Estimation				Fixed Region Effects OLS			
R^2	0.35	0.60	0.73	0.45	0.52	0.69	0.62
Number of observations	78	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. All specifications also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.

Table XI: Controlling for Time Effects and Medieval Political Institutions

	(1)	(2)	(3)	(4)	(5)	(6)
				The dependent variable is:		
	GDP	*Culture*	*Illiterates*	*VA-F*	*VA-C*	*VA-M*
War	- 43.055	- 30.308	19.051	3.360	- 30.723	- 27.666
	(16.493)**	(16.023)*	(6.038)***	(21.468)	(51.605)	(29.433)
War^2	1820.044	991.646	- 652.611	148.890	1481.681	1224.810
	(517.097)***	(502.371)**	(189.299)***	(673.063)	(1617.923)	(922.794)
Distance-to-Enemies	0.00002	- 0.0001	0.0001	0.0001	- 0.0002	0.0004
	(0.00029)	(0.0003)	(0.0001)	(0.0004)	(0.0009)	(0.0005)
Distortion-LT	- 0.010	- 0.034	0.038	- 0.091	0.016	- 0.167
	(0.032)	(0.031)	(0.012)***	(0.042)**	(0.100)	(0.057)***
P-value for *Democracy-M*						
× *1861-1901 dummies*	[0.03]	[0.19]	[0.00]	[0.19]	[0.18]	[0.00]
Time dummies	YES	YES	YES	YES	YES	YES
Estimation				Fixed Region Effects OLS		
R^2	0.88	0.51	0.95	0.82	0.80	0.93
Number of observations	78	78	78	78	78	78

Notes: 1. Standard errors allowing for clustering by region in parentheses. *** labels significant at the 1% confidence level; **, 5%; *, 10%.
2. All specifications also incorporate *Sericulture*, *Wheat*, and *Arboriculture*.