# From Taxation to Fighting for the Nation:

# Historical Fiscal Capacity and Military Draft Evasion during WWI

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#### Abstract

Do strong states affect the culture and actions of their citizens in a persistent way? And if so, can the capacity to tax, by itself, have a role in driving this effect? I study how the historical capacity of a state to collect taxes affects the decision of citizens to evade the mandatory military draft. I look at Italy during World War I and identify quasi-exogenous variation in tax collection induced by the administrative structure of Piedmont during the 1814-1870 period. Using newly collected individual data on the universe of the 1899 cohort drafted in the province of Turin, I find that citizens born in towns with lower historical fiscal capacity are more likely to evade the military draft, and that the effect transmits through changes in culture. Results are consistent with fiscal capacity spurring norms of rule-following able to persist in the long run. Placebo estimates from other Italian territories confirm that the effect I estimate can be attributed to fiscal capacity, and it is not confounded by legal capacity.

**Keywords:** Fiscal capacity, Tax collection, Culture, Military draft, World War I **JEL classification:** D73; D74; D91; H20; N4

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### 1 Introduction

The ability of a state to enforce laws and collect taxes efficiently (i.e., *state capacity*) is a fundamental driver of economic development (Kaldor, 1963; Besley and Persson, 2009, 2010; Acemoglu et al., 2015; Dell et al., 2018; Dincecco et al., 2021).

State capacity does not only affect the economic situation of its citizens, but may also have an impact on citizens' culture (Weber, 1976; Dell et al., 2018; Lowes et al., 2017; Heldring, 2021). Norms developed under strong states can persist over time, and societies exposed to strong state capacity may show the effects of such exposure in the actions of their citizens even generations after the establishment (and the removal) of the institutions that make a state strong.

In order to build state capacity, governments need to collect taxes effectively (Pomeranz and Vila-Belda, 2019). Historically, for most citizens, taxation was the first activity through which the state started to be present in their lives (Cantoni et al., 2019; Weigel, 2020), which makes the ability to collect taxes a hallmark of the state (Scott, 2017). Despite the relevance of fiscal capacity (the capacity of a government to collect taxes effectively), assessing its effects causally is a nontrivial task, as higher levels of fiscal capacity are typically associated with other phenomena, such as high legal capacity. Still, research suggests the act of enforcing taxation on citizens can affect their attitudes towards the government in the short run (Weigel, 2020): thereby, improving the capacity of a government to raise taxes may have important effects on citizens' culture and their actions, also in the long run.

In this paper I use individual data on military enlistment and draft evasion during World War I to study how historical exposure of local communities to fiscal capacity affects citizens' actions in the long run, and more specifically actions that involve a duty towards the state. I look at the Italian military draft in 1917, when the Italian Kingdom was involved in a demanding war and its male population was subject to mass mobilization to fight, through mandatory military service for every Italian man able to serve.

I investigate the effect that the historical capacity of a state to collect taxes from its territories had on the norms of local communities, which may have persisted in the long run and ended up affecting citizens' decision to enlist or to evade the military draft. I do this by analysing the long run effects of exposure to institutions for tax collection in place during the 1814-1870 period in Piedmont, a region in Northwestern Italy previously belonging to the

<sup>&</sup>lt;sup>1</sup>Legal capacity is intended as the overall ability of a state to enforce laws. The association between legal and fiscal capacity happens because investments in the two are complements (Besley and Persson, 2009) and most determinants of fiscal capacity lead to higher legal capacity too.

<sup>&</sup>lt;sup>2</sup>It is also common to use information of tax revenues of countries (or other administrations) as a measure of state capacity at large, abstracting from consideration on its legal and fiscal components (Gennaioli and Voth, 2015; Johnson, 2015; Heldring, 2020).

Sardinia Kingdom. In particular, given the partition of the Sardinia Kingdom into small tax districts and the allocation of tax collectors by the government, I leverage distance from tax collectors to identify variation in the capacity of the government to extract taxes from the different towns of the Kingdom. Between 1814 and 1870 every tax district of the Kingdom was assigned to one tax collector only, who was required to live and work in a specific town of the district chosen by the government (the tax district capital) and to visit each town of his district at least once a month. While tax collectors respected the first requirement, anecdotal evidence suggests the second rule was not enforced, so that tax collectors did not move around their tax districts in a systematic way. In 1870 this tax collection system was replaced by a new one under which tax collection was assigned to private citizens separately for each town, so that the previously existing tax districts did not have any role for tax collection in 1917. By studying this setting, I analyse the long run effect on citizens' actions of exposure to institutions granting higher fiscal capacity after they were removed (i.e., an historical effect).

Motivated by the evidence on tax collectors' behaviour, I use the distance of a town from the residence of its tax collector as a measure of the capacity of the government to collect taxes in it in the 1814-1870 period. While distance from governmental offices is a reasonable and widely used measure of their capacity to act (Michalopoulos and Papaioannou, 2014; Restrepo, 2015; Henn, 2022), in this setting the estimation of the (historical) fiscal capacity effect poses important identification challenges. First, being district capitals, towns hosting tax collectors tend to be larger and richer: therefore, distances from former residences of tax collectors are likely to correlate with several socio-economic characteristics of towns and of citizens living in these towns (e.g. income, market access, social structures), which may in turn drive the decision to evade the military draft. Second, as tax districts were centers of administrative divisions (albeit very small ones), they sometimes hosted also other public offices: thus, distance from a former tax collector's residence could predict not only historical fiscal capacity, but also other components of state capacity. In order to address the first threat to identification I exploit discontinuities in distance from a historical tax collector's residence created by tax district borders. More specifically, I focus on variation in distance from tax collectors' residences within pairs of towns that are neighbours, but belonged to two different (and bordering) tax districts before 1870. Neighbouring towns, because of their geographical proximity, have similar observable characteristics, but because of their assignment to two different tax districts, they differ in distance from their former tax collectors' residences. More specifically, I match each town on the border of a tax district to every neighbouring town on the other side of the border and estimate the effect of distance from a former tax collector's residence on draft evasion controlling for a full set of town-pairs fixed effects (following Dube et al., 2010). In this way, the effect of historical fiscal capacity on the likelihood of evading the draft is identified by exploiting variation in distance from a tax collector's residence between neighbouring towns (or citizens born in two neighbouring towns) belonging to different tax districts. To address the second challenge, i.e. the presence of other public offices, I adopt three strategies. First, I exclude from the sample towns for which the former tax collector's residence also hosted a division capital or the closest police station. Second, I verify that no other public office was located one-to-one in tax district capitals, except minor courts. Third, I use a placebo test to disentangle the effect of historical fiscal capacity effect from the one of proximity to a minor court.

To study my research question, I assemble a unique dataset combining newly collected and digitised individual data on all the men from the 1899 cohort drafted in the Province of Turin and town-level information on both pre- and post-1870 characteristics. The dataset includes rich information on drafted Italian citizens coming from their medical examination and the record of their history in the military until the moment of actual enlistment. Crucially, the dataset contains information on a citizen's name, town of birth, town of residence, and whether they enlisted or evaded the military draft. The individual-level dataset includes 92-98% of all the men estimated to be born in 1899 in the Province of Turin and to have survived until the age of 18, reaching nearly-full coverage: accordingly, the estimated results are likely to be representative of the male population born in the towns of the sample.

In a first result, I provide evidence that the distance of a town from a tax collector's residence did lead to less taxes collected in that town before 1870, looking at taxes raised by the tax collector on behalf of the town in the areas of Ivrea and Saluzzo. These findings support the strategy of using distance from a tax collector as a valid measure of (historical) fiscal capacity. In my main result, I show that historical fiscal capacity lowers the likelihood of citizens to evade the military draft during World War I: being born in a town farther from the former residence of a tax collector predicts a higher likelihood to evade the military draft in 1917, both in town-level and individual-level analyses. Depending on the specification, a 1-kilometre increase in distance from a tax collector's residence leads to 0.2-0.49 percentage points increase in the share of draft evaders in the town; this corresponds to 4-10% of the baseline evasion rate of 4,72%. This positive result is robust to controlling for a large array of town and individual characteristics, and high values of Oster (2019)'s  $\delta$  suggest unobservables are unlikely to drive the result. To further attenuate concerns regarding a confounding effect of differences in draft enforcement, I also show that, when estimating the effect of distance from a former tax collector's residence and the one of distance from a police station jointly, the historical fiscal capacity effect is basically unaffected in its magnitude and significance. This result, together with the sample selection I impose, shows that the effect I identify is not driven by towns more difficult to tax being also more difficult to patrol.

The relationship between distance from a former tax collector's residence and draft evasion during World War I may conflate both the historical fiscal capacity effect and a (historical and contemporary) legal capacity effect, because of the one-to-one correspondence between tax collectors' residences and the location of minor courts. Taking advantage of the administrative system of the unified Italian Kingdom, I run a placebo test using distances from judicial district capitals that never hosted the residence of a tax collector. Using data from the province of Vicenza, I find scarce evidence that proximity to a minor court might have an effect on the decision to evade the military draft, or to enlist: estimated coefficients are small, often negative, not significant, and unstable across specifications.

Next, I study channels of transmission, exploring whether the effect of historical fiscal capacity is transmitted through culture (affecting the norms of communities more or less exposed to fiscal capacity), or rather through persistent differences in the strength of the state's institutions. I repeat the analysis focusing only on the sample of internal migrants (citizens living in a town different from the one they were born in) and including town-of-residence fixed effects, keeping fixed every current institutional factor that may affect the decision to evade the military draft. Intuitively, for migrants, variation in the distance of their town of birth from a former tax collector's residence predicts a cultural component in the effect of historical fiscal capacity; distance from a tax collector of the town of residence, instead, would predict persistent differences in institutions. I find that distance of the town of birth of a citizen from the former residence of a tax collector has a positive effect on the likelihood of a citizen to evade the draft, with coefficients of the distance of the town of birth from its former tax district capitals larger in size compared to the ones estimated on the pooled sample that includes also natives. As the results on the effect of police enforcement and from the placebo test are inconsistent with the effect of historical fiscal capacity persisting thanks to the establishment of new institutions in former tax district capital (or towns closer to them), historical fiscal capacity could still transmit through persistently higher fiscal capacity in towns once closer to a tax collector's revenue. Using data on local taxation both before and after 1870 I find that the effect of historical fiscal capacity on tax revenues dissipates in time: transmission of its effect through institutions is, therefore, unlikely to happen. Overall, these results corroborate the hypothesis that historical fiscal capacity transmits its effect in the long run through culture.

After identifying culture as the most relevant channel of transmission, I study the content of the cultural norms that were transmitted in time, and can explain the persistence of the effect of historical fiscal capacity. A plausible mechanism driving the results is the emergence of norms of rule-following as a result of exposure to higher tax collection. Citizens living in

towns where fiscal capacity was higher may have gotten accustomed to paying taxes, favouring the emergence of norms of tax compliance. If complying with tax obligations induced citizens to comply with other laws too (Keizer et al., 2008), then tax enforcement could have fostered the emergence of a generalised norm of rule-following, inducing citizens to comply with the law (and arguably accept the state's requests) also in domains different from tax compliance. The persistence of such a norm over time would, then, induce drafted citizens to evade less the military draft many years later. Such a mechanism is fully consistent with the findings from the empirical analysis; unfortunately, the absence of town-level information on citizens' propensity to follow the rules prevent me from testing it empirically.

Another potential mechanism is public good provision. Intuitively, if taxation were not extractive, better tax collection could have allowed towns to fund more public goods, and this may have in turn induced in citizens better attitudes (or even gratitude) towards the state. However, looking at effects on several indicators of public spending both before and after the Italian unification, I find no evidence that public good provision was higher in towns where fiscal capacity was higher; consequently, public good provision is unlikely to drive the main effect. I also provide evidence that proximity to tax collectors did not increase the patriotism of citizens: while state presence (signalled by a tax collector) may have induced citizens to identify more with the central state, I find no consistent effects of distance from a former tax collector's residence on Medals of Honor during World War I or share of citizens named after a Savoy king. The main result of this paper could also be explained by three other mechanisms. The first one is perceived fairness of taxation: keeping the tax level fixed, more systematic tax collection may have been perceived fairer by citizens (Weigel and Ngindu, 2021), leading them to recognise higher legitimacy to the state's requests. While increased perceived fairness of the tax system can potentially be a mechanism through which high historical fiscal capacity decreases draft evasion in the long run, such a mechanism is less likely to be at play in this specific setting, where tax collectors had no power in determining the tax base and its fairness. The second potential explanation is still related to the state's legitimacy: even if the distance from a tax collector were not leading to fairer taxation, communities that got used to more systematic tax collection may have eventually gotten used to it and recognized the legitimacy of the state's requests, developing, in turn, a sense of trust in the state's institutions: if this were the case, then citizens would follow the state's advice not only when they had to respect a prescription (such as military enlistment), but also when some private actions were just recommended. However, results on vaccine uptake between 1880-1884 do not support this hypothesis. Finally, the last alternative mechanism

<sup>&</sup>lt;sup>3</sup>Heldring (2021) provides evidence that strong states foster the emergence of norms of obedience, and that these norms persist over time.

is updating of citizens' beliefs about state capacity: if tax collection sends a signal of higher state capacity,<sup>4</sup> then citizens may perceive a higher value in defending the country, and would therefore be less prone to evade the military draft. Though it is theoretically possible that citizens who perceive higher state capacity enlist more without being more patriotic, such an interpretation is less plausible given the absence of effects of historical fiscal capacity on heroic actions from drafted citizens.

Ultimately, while I am not able to provide evidence on it because of data limitations, the findings from this paper are mostly consistent with the first described mechanism, i.e. fiscal capacity inducing the emergence of a generalised norm of rule-following, able to persist and, in turn, affects enlistment and draft evasion in the long run.

This paper contributes to four strands of literature. First, it relates to the literature on the consequences of establishing state capacity (Dincecco and Katz, 2014; Dincecco et al., 2021; Cantoni et al., 2019) and more specifically on literature studying the impact of state capacity on the attitudes and actions of their citizens (Weber, 1976; Elias, 1994; Pinker, 2011; Becker et al., 2016; Lowes et al., 2017; Johnson, 2015; Heldring, 2021, 2020), which found mixed evidence on how strong states affect trust, rule-following, and nation building in the long run. While these studies looked at effects of state capacity that arise several generations after the institutions under study were discontinued, the main contribution of my paper is to complement this body of literature focusing on the effect of *fiscal* capacity on culture and actions, and isolating it from other components of state capacity like legal capacity and military enforcement.

Second, this paper also contributes to the literature on the drivers of participation in war and the determinants of patriotism. A branch of research analysed how socio-economic environmental factors (Kleykamp, 2006), shared experiences (Ronconi and Ramos-Toro, 2023), and economic policies of the state (Alesina et al., 2020, 2021; Caprettini and Voth, 2023) can induce citizens to join the army, e.g. as a reaction to higher public good provision or welfare spending. Another strand of this literature studies the cultural determinants of war service and patriotism (Costa and Kahn, 2003; Campante and Yanagizawa-Drott, 2015; Chen, 2016; Qian and Tabellini, 2021; Esposito et al., 2021), highlighting how participation in war and desertion can be significantly affected by a company's characteristics, cultural transmission from fathers, deterrence of death penalty, perceived state legitimacy, experiences of discrimination, and racist and revisionist narratives about civil wars. I add to this literature by investigating the role of a novel driver in the decision to enlist or evade the draft, namely the long run effect of past fiscal capacity experienced by a community, an arguably powerful signal of the presence of the state; I also focus on a setting where the military draft

<sup>&</sup>lt;sup>4</sup>That is, a higher ability of the state to implement policies potentially useful to citizens (Weigel, 2020).

was mandatory, therefore looking at a decision involving both patriotic considerations and obedience to the law.

Third, this paper is related to research on mobilization for war (see e.g. Rouanet and Piano, 2022) and for World War I in particular (Koenig, 2023; Berg et al., 2019; Acemoglu et al., 2022; Boehnke and Gay, 2022), which often studied the effects of participation in war on various social and political outcomes. Similarly to Esposito et al. (2021), I contribute to this strand of literature focusing on a novel determinant of participation in World War I.

Finally, this paper speaks to the literature analysing how taxation and tax collection influence the intrinsic motivation to pay taxes, social unrest, and citizens' perception of state capacity (Levi, 1996; Besley et al., 2021; Lax-Martinez et al., 2022; Weigel, 2020; Weigel and Ngindu, 2021). I contribute to this literature by studying the long run cultural effect of imposing fiscal capacity on a community, and focusing on an outcome other than tax morale, namely law-abiding behaviour when obligations towards the state are involved.

The rest of this paper is organised as follows: section 2 provides an overview of the tax collection system in Piedmont before 1870 and of the Italian military draft in 1917; section 3 describes the data used in the empirical analysis; section 4 presents the identification strategy; section 5 shows balancedness in observable characteristics between more and less intensely treated units; section 6 presents the main empirical results; section 7 studies mechanisms and section 8 concludes.

# 2 Background

### 2.1 Tax collection in the Sardinia Kingdom, 1814-1870

The Sardinia Kingdom was one of the eight most relevant political units of the Italian territories in the first half of the XIX century, i.e. after the Napoleonic wars and before unification. Its territories mainly coincided with four Italian regions, namely Piedmont, Liguria, Aosta Valley and the Sardinian Island.

Except for the years under French domination,<sup>5</sup> the Sardinia Kingdom (or Piedmont) was a long-living independent state dominated by the House of Savoy. Starting in 1814, the kingdom underwent several political and economic changes, also as a consequence of the revolutions of 1848 and the Italian Wars of Independence, culminating with the unification and the establishment of the Italian Kingdom in 1861, a process that the Sardinia Kingdom led.

The kingdom had a rather complex geographical administrative structure, which it partially inherited from the policies promoted by the French rulers. In particular, after coming

 $<sup>^{5}</sup>$ The mainland regions of the Sardinia Kingdom were completely annexed to France between 1802 and 1814.

back in power in 1814, the House of Savoy kept in place most of the judicial system established by the French, including the partition of Piedmont's territories into a large number of small judicial districts.

The judicial districts were established according to a French law<sup>6</sup> following the requirement of having around 10.000 citizens living in each of them. In addition, the law required the judge to live in a designated town of the district, chosen according to its relevance and its centrality with respect to the other towns. Once reinstated in power, the Piedmontese government expanded this system to all its other territories; furthermore, starting in 1814, the judicial districts were also used for tax purposes, assigning one tax collector to each judicial/tax district, and requiring him to live in the same city of the judge.<sup>7</sup> This administrative division was relevant only for tax and judicial purposes; there was no other public office located in the district capital on a systematic basis, and the district did not have a local government.

Through this system, the collection of direct taxes was centralized and internalized. Tax collectors were public employees, and they were entrusted with the task of collecting all direct taxes for the central and provincial government, on top of every direct or indirect local tax the town government decided (at its discretion) to levy.

Piedmont was the Italian pre-unitary state levying more taxes in the first half of the XIX Century (Dincecco et al., 2011); during this period, direct taxes grew of importance for the Sardinia Kingdom in XIX century, almost doubling between 1825 and 1859.<sup>8</sup> Direct taxes consisted mainly of a land tax and a house tax on owned buildings (Norsa and Da Pozzo, 1961); towns' governments could participate to direct taxation by collecting additional land taxes.<sup>9</sup> On average, the land tax amounted to around 6.7% of the yearly revenues from the land (Fossati, 1930), and was based on the Savoy land cadastre of the XVIII Century.<sup>10</sup> Because of an arguably high fractionalization of land property, the number of citizens subject to the land tax was far from small: evidence from two tax districts with detailed data on taxpayers shows that around 26% of citizens were subject to the land tax, so that the number of households hit by direct taxes could easily be much higher (Plebano, 1832, 1836). Importantly, the assessment of the tax base (and the correction of mistakes due e.g. to

 $<sup>^6</sup>$ Règles générales sur l'administration de la Justice et sur l'organisation des Tribunaux dans le Piémont (1801).

<sup>&</sup>lt;sup>7</sup>The overlap of judicial and tax districts poses concerns to the identification of the effect of historical fiscal capacity on military draft evasion; in section 4.3 I propose a strategy to address this issue.

<sup>&</sup>lt;sup>8</sup>At the time of the Italian unification in 1859, direct taxes in Piedmont amounted to 19% of tax revenues (Dincecco et al., 2011).

<sup>&</sup>lt;sup>9</sup>Town-level taxation mainly involved consumption taxes.

<sup>&</sup>lt;sup>10</sup>While the French government invested substantial resources in the realization of a cadastre, by the time Piedmont re-gained its independence, the Napoleonic cadastre had been in less than a fifth of the towns of the Kingdom, so that the new government did not use it as an instrument to determine the tax base.

changes in changes of ownership) was not a task assigned to tax collectors, but to specific public officials of the central government entrusted with the task of verifying the accuracy of the tax base by keeping taxpayers' lists updated; such officials were in lower number compared to tax collector, and their districts did not overlap with tax districts.

The tax collector was required to visit each town of the district at least once a month. However, transcripts from a debate of the Sardinian Parliament from 1854<sup>11</sup> clarify this rule was not respected: tax collectors' visits to their assigned towns were highly irregular, or completely absent; as a consequence, tax payments were often taking place at the residence of the tax collector, forcing citizens to travel to the tax district capital in order to fulfill their duties towards the taxman.

The partition of the territory into districts was likely not implemented evenly and efficiently in the different areas of Piedmont. Indeed, while officials of provinces like Saluzzo noticed how tax district capitals and their offices were located in the "most convenient" and central point of the district (Eandi, 1835), the allocation of towns to districts like the Baldichieri one looked less straightforward, as for some towns the capital was not the closest possible or the one with whom there were tightest commercial relationships, and more generally it was sometimes difficult to understand the unevenness in area and number of towns between the districts of the kingdom (Plebano, 1832).

This tax collection system was kept in place in Piedmont from 1814 until the Italian unification, and on a temporary basis also in the first years following the unification process. Starting in 1870, collection of direct taxes was reorganised and homogenised across Italy: rights to collect taxes were assigned to private citizens on a town-level basis, hence making the districts irrelevant for tax collection purposes. Since 1861 the whole Italian territory was partitioned in *judicial* districts comparable to the districts used in the Sardinia Kingdom for judicial and tax purposes; this judicial administrative system was still in place in 1917.

### 2.2 Italian military draft in 1917

In 1917 the Italian Kingdom was participating in World War I since two years, fighting against the Austro-Hungarian Empire on its Northeastern border. The Italian male population was called for mass mobilization, so that the vast majority of men able to serve in the Army were asked (compulsorily) to enlist.<sup>12</sup>

Military service had been mandatory for every Italian man aged 20 (or older) since 1875 (L. 2532/1875), and for territories formerly under the Sardinia Kingdom since 1854 (L. 1676/1854). Before World War I, mandatory military service lasted two years. When drafted

<sup>&</sup>lt;sup>11</sup>Camera dei Deputati (1870).

<sup>&</sup>lt;sup>12</sup>By the end of the war in 1918 around 5,9 million men were enlisted, out of around 12,2 million men belonging to 27 birth cohorts that were called to serve (Ilari, 1990).

for military service, Italian men were asked to visit their division (or *circondario*<sup>13</sup>) capital to undergo a medical examination; if they were considered suitable to serve, they were soon enlisted and sent to military camps.<sup>14</sup> As a division included several judicial/former tax districts, for most citizens the district capital was not their division's capital.

Because of the considerable losses, in 1916 the Italian Army started to call men to serve before they turned 20. In particular, almost the entire cohort of 1899 was called to enlist before the age of 18.<sup>15</sup>

Evasion of the military draft was a widespread phenomenon. During the entire war, 11,31% of drafted Italian men (and 10% in the 1899 cohort) evaded the military draft (Ilari, 1990), by not showing up for medical examination or not enlisting after being considered suitable to serve. It was common for evaders to hide in mountain areas; however, many were found also in large cities like Turin (Melograni, 1969).

Draft evaders included the Italian emigrants who did not repatriate and did have a second citizenship, as Italian citizens were called to serve in the Army even when residing abroad. The Italian government organised and funded the repatriation of drafted migrant men and their families, so that around 300,000 Italian men returned from abroad to serve in the Italian Army, including more than 150,000 returning from North and Latin America (De Michelis, 1926). <sup>16</sup>

Before and during the war, drafted men could be exempted from military service for health reasons. However, in 1917 the Army considerably tightened its rules for granting exemptions, also calling previously exempted citizens to review the first visit and enlist them.

<sup>&</sup>lt;sup>13</sup>A circondario, or a division as I call it in this paper, was the most relevant local administrative unit of the Sardinia Kingdom, with the ability to collect taxes and fund public goods (mostly roads). After the Italian unification, the circondario remained present as an administrative unit but lost relevance, losing any power as a local government: essentially, it served to delimit judicial districts for the main courts of the Italian Kindgom, and hosted a in its capital a court and a representative of the central government.

<sup>&</sup>lt;sup>14</sup>In times of peace, and during the first periods of the war, enlisted soldiers could be sent to every camp on the Italian territory; however, by 1917 the system was mixed and often soldiers would be enlisted in camps in their region, before being sent to the battlefront.

<sup>&</sup>lt;sup>15</sup>Men born in the first four months of the year were called for medical examination in February 1917; men born in the following months were called in May 1917.

<sup>&</sup>lt;sup>16</sup>While at the beginning of WWI it was not clear to many migrants what were their duties (Commissariato Generale dell'Emigrazione, 1924) even in the United States it soon became clear that Italian citizens were not exempt from the mobilization (Daly, 2021). Patterns of migrants were not unknown to the Army, which attempted to keep track of the residence of each citizen, also by using detailed data on the issuance of passports (a mandatory document to leave the country). In the whole sample of drafted citizens for the 1899 cohort, only 1.08% were reported to live abroad, and only 0.6% of them in Northern or Southern America.

### 3 Data

In the following section I present the dataset I assembled and describe the main variables used in the empirical analysis. In Appendix B, I provide a detailed list of all the variables used in the analysis, their sources and their construction.

### 3.1 Fiscal capacity

The main explanatory variable is the log of walking distance of a town from the capital of its tax district (the residence of its tax collector) during the 1814-1870 period, which I use as a proxy for historical fiscal capacity of the state in that town. I obtain the list of towns for the 1814-1870 period and their partition in tax districts from Stefani (1855).

I compute the walking distance (in meters) as the length of the least-cost path between the centroid of a town and the centroid of its (former) tax district capital. I follow Özak (2010) and determine the cost of moving through cells according to elevation, weather patterns and soil conditions,<sup>17</sup> and using Tobler's hiking speed function to determine the walking-time cost of moving through cells.

As an alternative measure, I use the log euclidean distance of a town from its (former) tax district capital.

### 3.2 Draft evasion and other data from military records

Using the enlistment records from 1917 kept by the Turin State Archive (henceforth, TSA), I collect and digitise individual data on all the men called to serve in the Italian Army who belonged to the 1899 cohort and were registered as residents in the province of Turin. The 1899 cohort includes all men born in 1899 and a limited number of older men whose enrollment was deferred for medical reasons.

The men I observe in my sample were considered residents in the province of Turin if they were born there and never changed their residence, or if they were born out of the province of Turin but registered there as residents. The enlistment records also contain information on Italian emigrants born in the province of Turin who did not change their citizenship and were therefore asked to serve in time of war.

<sup>&</sup>lt;sup>17</sup>More specifically, Özak (2010) proposes a Human Mobility Index, computing the travel time (in days) keeping into account the aforementioned characteristics. In the main analysis of this paper I compute a path using the HMI procedure and use the log of length in meters of the path instead of travel time as main variable of interest. Results are robust to using the Human Mobility Index between a town and its former tax district's capital as an alternative measure.

<sup>&</sup>lt;sup>18</sup>For the city of Turin, because of the large amount of data, I collect data on all the men born in another town, and a subsample of data for men born in Turin. As explained in section 4.3, men born in the city of Turin would be in any case excluded from the analysis sample.

For each drafted man, the digitised data from enlistment records contain information on his personal details (name, surname, name of his father, height, literacy level), his town of birth and current town of residence, and information on his enlistment process (actual enlistment, exemptions for medical reasons, other types of exemptions, declaration of draft evasion). Using information from the enlistment records, a man is coded as a draft evader if he was declared an evader and such a declaration was never cancelled.<sup>19</sup> Figure B.1 shows an example of the original data from military lists.

Furthermore, I use data from enlistment records of all the men called to serve in the Italian Army that belonged to the 1899 cohort and were registered as residents in the province of Vicenza (digitised by the Vicenza State Archive, henceforth VSA). Data provided by VSA contain many information comparable to the data collected from AST; however, they do not contain information on citizens' height and literacy levels, and provide less detailed information on their enlistment process.

### 3.3 Taxes collected by towns before 1870

I use data on all local taxes raised by tax collectors on behalf of towns belonging to the Sardinia Kingdom (Piedmont) before 1861. This sample's towns belonged to two Sardinia Kingdom divisions, Ivrea and Saluzzo. I collect these data from two different sources: for the division of Ivrea, I use archival records from 1847 kept by TSA on taxes collected in 1846; for the division of Saluzzo, I use data from Eandi (1835), which reports information on average tax revenues collected in Saluzzo between 1831 and 1834.

I also use data from Direzione Generale della Statistica (1887) and Direzione Generale della Statistica (1896) on town-level tax revenues after 1861 (in 1884 and 1895) for all the towns of the estimation sample.

#### 3.4 Other town-level variables

I collect information on the population of Piedmontese towns in 1821 from Regno di Sardegna (1824). From Santi (1902) I collect information, for each town, of its population in 1901 and the presence of police stations, post offices, and train stations. I also calculate towns' distances from Turin, Genoa, their province capitals, their division capitals, the closest police station and international borders.

I use FAO-GAEZ (FAO, 2015) data to measure towns' land suitability for eight crops including wheat, rice, maize and potato. Finally, I obtain measures on towns' elevation, standard

<sup>&</sup>lt;sup>19</sup>In many cases, drafted citizens were declared evaders when not attending their medical examination, but were acquitted if they showed up shortly later (e.g. after one month). In some cases, citizens were mistakenly classified as evaders if their change of residence had not been recorded, and were therefore enlisted in another town. In cases like these, men are classified as *non*-evaders.

deviation in elevation, and land area from ISTAT. Additional town-level variables (used mainly in the analysis of section 7) and their sources are described in Appendix B.

## 4 Identification strategy

### 4.1 Empirical challenges

In order to estimate the effect of the historical fiscal capacity of the state on draft evasion in 1917, I test whether the distance of the town of birth of men from the historical residence (during the 1814-1870 period) of a tax collector predicts higher or lower likelihood that such men evade the military draft. Simple OLS estimates of this relationship pose two important empirical challenges to the identification of a causal relationship between fiscal capacity and draft evasion.

First, as towns hosting the residences of tax collectors were district capitals, they were likely to be chosen because of particular importance for the territory of their tax districts (e.g. because of higher population, higher economic importance, better connections to the road and railway network): if this were the case, towns closer to the historical residences of their tax collectors would also likely be larger, wealthier, and with different socio-economic structures. As a consequence, the distance of a town from the historical residence of a tax collector would likely be correlated with characteristics other than the historical fiscal capacity that could nonetheless affect the decision to enlist or to evade the military draft. Figure C.1 shows how, indeed, distance from former tax collectors' residences predicts significant differences in many town-level (even pre-determined) characteristics; in particular, towns farther from a former tax district capital tend to be significantly different from closer ones in their remoteness, and geography more generally.

Second, being the centre of an administrative division (albeit a very small one) the district capital was likely to host not just the residence of a tax collector, but also other relevant public offices since the time a tax collector was allocated there. If this were the case, the distance from a tax district capital would conflate both a fiscal capacity effect and effects from other dimensions of state presence (or state capacity).

In the following sections I describe how address these two issues.

### 4.2 Town-pairs fixed effects

A source of plausibly exogenous variation in historical fiscal capacity may come from discontinuities in distance from a historical tax collector's residence for towns close to each other, but belonging to two different (although adjacent) tax districts. Indeed, neighbouring towns on the two sides of a tax district border, being very close to each other, have similar characteristics, on average; however, because of their assignment to two different tax districts,

they are likely to differ in the distances from where their tax collectors were living in the 1814-1870 period.

In order to maximize the comparability of towns that differ in their distance from a former tax collector's residence I compare *pairs* of neighbouring towns that straddle a tax district boundary,<sup>20</sup> so that each town on the border of its tax district is matched with *every* other neighbouring town on the other side of its tax district.<sup>21</sup>

Formally, when analysing aggregate town-level outcomes, I estimate equations of the following form:

$$Outcome_{tp} = \gamma_p + \beta \log Dist. Tax Collector_t + \mathbf{V_t}\delta + \varepsilon_{tp}, \tag{4.1}$$

where a town-level outcome for town t in pair p is regressed on  $logDist.Tax\,Collector_t$ , the distance of the town from the (former) residence of its tax collector, a full set of town-pairs fixed effects  $\gamma_p$  and (in some specifications) town-level controls  $\mathbf{V_t}$ .

When looking at individual-level outcomes, the estimating equation takes the following form:

$$Draft Evader_{itp} = \gamma_p + \beta \log Dist. Tax Collector_t + \mathbf{V_t} \delta + \varepsilon_{itp}, \tag{4.2}$$

where  $Draft Evader_{itp}$  is a binary variable indicating whether citizen i born in town t in town-pair p evaded the military draft or not,  $\gamma_p$  is a full set of town-pairs fixed effects,  $logDist.Tax\,Collector_t$  is the distance of the town of birth of a soldier from the former residence of its tax collector, and  $V_t$  are town-level controls for town of birth of a citizen.<sup>22</sup>

If a town borders with several other towns, it appears in the estimation sample multiple times: more precisely, a town appears in the sample as many times as the number of town-pairs it is in. Similarly, for the individual-level analysis, a drafted man appears in the estimation sample as many times as the number of pairs its town of birth is in. The presence of a single town within multiple pairs along a tax district border induces mechanical correlation in the residuals across town-pairs. Additionally, given the small size of the districts I look at, most towns (and as a consequence, in the individual-level analysis, most drafted citizens) appear on more than one border, inducing correlation in the residuals across several borders. To address this issue and avoid bias in the estimation of standard errors, I follow Dube et al. (2010) and Cantoni (2020) and throughout my empirical analysis I use two-way

<sup>&</sup>lt;sup>20</sup>I follow this approach as an alternative to comparing all towns on one side of a district border to all the towns on the other side of the border.

<sup>&</sup>lt;sup>21</sup>While in principle also pairs of towns within the same tax district could be used for this estimation strategy, being the treatment of interest also varying within towns in the same tax district, I focus on towns on the border of their tax districts in order to maximize power and differences in distance from a tax collector's residence.

<sup>&</sup>lt;sup>22</sup>The focus on pairs of neighbourhood units on the border between administrative regions for identification and the use of individual-level outcomes is similar to Lichter et al. (2020).

clustering by border and tax district.<sup>23</sup>

Figure 2 illustrates the identification strategy using the border between the Corio and the Rivara tax district. The polygons bordered in white represent towns, and the blue line represents the border between the two tax districts. Centroids of district capitals are denoted by blue dots. The two towns of Rocca Canavese and Levone (with borders highlighted in red) are located on the border of their tax districts and they are adjacent to each other, so they enter the estimation sample and are matched in one town-pair (i.e. by sharing the same town-pair fixed effect). Because of geographical proximity, the two towns are likely to be extremely comparable in many characteristics;<sup>24</sup> similarly, also the men born in the two towns are likely to be similar. However, while Levone is 2.8 kilometers far from the historical residence of its tax collector, the corresponding distance for Rocca Canavese is almost twice as large. Equations 4.1 and 4.2 exploit variation in distances from historical residences of tax collectors only within pairs like the Rocca Canavese/Levone one, and test whether it predicts differences in likelihood to evade the military draft for men born in the pair.

#### 4.3 Presence of other relevant offices

Being centres of administrative divisions, tax district capital could be hosting other relevant offices, on top of residences of tax collectors during the 1814-1870 period. In this case, the matching strategy described in section 4.2 would isolate the effect of all the offices hosted in the district capital, and not just the historical fiscal capacity effect.

In order to address these issues, I impose some restrictions on the towns I include in the sample. First, I exclude tax district capitals from the estimation sample of my main analysis, <sup>25</sup> as their designation as capitals signals they might be too different from the other towns of the district (or the bordering district). Second, I exclude towns for which the distance from a former tax district capital coincides with distance from a division capital, which would be hosting other relevant public offices. <sup>26</sup> Third, to attenuate confounding effects from enforcement capacity of the state, I exclude towns for which the closest police

<sup>&</sup>lt;sup>23</sup>In some analysis the number of clusters in either the two dimensions is below 50; following Lichter et al. (2020), in these cases I also present estimates using the standard percentile-t Wild cluster bootstrap approach (Cameron et al., 2008).

<sup>&</sup>lt;sup>24</sup>Including, for example, the proximity to the same relevant town: Rocca Canavese and Levone are less than 3 kilometers apart, and it is virtually indifferent to travel from Rocca Canavese to Corio or to Rivara (that are likely to be the relevant towns of the area, and to host amenities such as a train station or a local market).

<sup>&</sup>lt;sup>25</sup>Because of the small size of the districts under analysis, tax district capitals were often on the borders of their tax districts.

<sup>&</sup>lt;sup>26</sup>I also include province fixed effects in every specification, so to focus on variation between towns differing only in their distance from a former tax collector's residence, and not only differences in the policies of their province. I choose fixed effects for provinces instead of divisions because of comparability between the Turin and the Vicenza samples (as better described in section 6.3) and because provinces were the relevant political unit, likely to enforce differential policies at the time of the war. Results using division fixed effects are generally stronger.

station was located in the former tax district capital.<sup>27</sup>

Finally, the allocation of tax collectors mapped one-to-one into the allocation of local judges. This implies that estimates of distance from a tax district capital could conflate both fiscal capacity and legal capacity effects. While it is impossible to disentangle the two effects in the context of Turin, in section 6.3 I estimate placebo regressions of the distance from judicial district capitals relying on the presence of judicial districts in the rest of Italy comparable to the districts in Piedmont, but that were never used for tax purposes.

## 5 Summary statistics and balance of observables

Table B.1 summarizes the characteristics of the towns and the individuals of the Turin sample, which I will use in the main analysis. Towns in my sample are arguably small (on average, with less than 1800 citizens in 1901), and only a minority of them hosted a police or a train station. The tax districts these towns belonged to during 1814-1870 were small, with around five towns per district; related to this observation, towns of birth of drafted citizens are on average less than 8 kilometers far from their former tax district capitals. Towns in the regression sample (selected as explained in section 4.3) tend to be less populated, and arguably more isolated (by looking at distance from province and division capitals, or at the presence of a train station) than the towns of birth of all the citizens drafted in 1917 in the province of Turin. Most of these differences are likely to be driven by the exclusion of tax district capitals from the regression sample: because of this, walking distance from a former tax collector's residence is almost twice as large in the regression sample than in the full sample.<sup>28</sup> Nonetheless, the share of draft evaders born in the town is comparable across samples.<sup>29</sup>

Figure 3 presents estimates of  $\beta$  from equation 4.1 using (standardized) town characteristics as outcomes; Tables C.1 and C.2 report results from the same regressions. Under the identification assumption, these characteristics should be indistinguishable within couples of towns, on average; the estimates of such placebo regression should, therefore, be small and not significant. In each column of the tables I report a separate regression, where I always include town-pairs fixed effects (crucial for my identification strategy), province fixed effects, and I apply the sample restrictions described in section 4.3. Results show that controlling for town-pairs fixed effects succeeds in making towns comparable, despite their differences in distance from a former tax collector's residence: most pre-determined variables

<sup>&</sup>lt;sup>27</sup>While this restriction does not rely on precise administrative division boundaries, I use closeness to a police station as the best approximation of the catchment area of the station, and impose this restriction to attenuate problems deriving by the overlap of a tax district and a police station catchment area, for which information are not available.

 $<sup>^{28}\</sup>mathrm{Where}$  such a distance would be zero for district capitals.

 $<sup>^{29}4,52\%</sup>$  in the regression sample, 3,94% in the full sample.

(such as geographical characteristics, distances from relevant cities, or population right-after the introduction of tax districts), and post-treatment variables (such as the presence of a train station, a post office or a police station) do not show significant differences between towns closer or farther from their tax collector in the 1814-1870 period; furthermore, most coefficients are small in size.<sup>30</sup>

Figure C.2 presents similar placebo regressions, using as outcomes the town-level averages of individual characteristics of drafted soldiers.<sup>31</sup> The focus here is on characteristics which may directly influence the likelihood to show up (or not) for medical examination, or that may lead to differential ways of not enlisting. Within town-pairs, citizens born in towns farther from a former tax collector's residence do not differ significantly in their likelihood to be illiterate, or their height. In addition, within town-pairs, distance from a former tax district capital does not predict differences in two indicators of potential frauds in the process of the draft: the distance of interest does not predict higher share of citizens shorter than 150cm,<sup>32</sup> or a smaller cohort size as a share of the population of the town.<sup>33</sup> In sum, the town-pairs fixed effects design greatly attenuates concerns that my measure for historical fiscal capacity could indeed be capturing effects of other relevant drivers of the decision to enlist or evade the military draft.

### 6 Results

### 6.1 Distance from tax collectors and local taxation before 1870

As a preliminary result, Figure 4 presents evidence on the effect of log distance from a tax collector's residence on the amount of local taxes raised by tax collectors on behalf of the

<sup>&</sup>lt;sup>30</sup>Towns farther away from a former tax collector's residence are also significantly farther from a division capital, which was also the location were medical examinations for the draft took place. In all the results, distance from a division capital is included as a control in the regressions together with other geographical and pre-determined characteristics; when including it as the only other covariate in the baseline specification (on top of fixed effects) the coefficient of interest becomes larger in magnitude, and marginally significant. This suggests the effect of fiscal capacity on draft evasion is not confounded by its correlation with distance from a division capital.

<sup>&</sup>lt;sup>31</sup>While these outcomes are available at the individual-level, they are absent for most draft evaders, as the more common way to evade the draft during the war was to simply not show up for medical examinations: as a consequence, more than 88 percent of the draft evaders would be missing when using available individual-level information. I use town-level averages of individual characteristics to alleviate concerns arising from nonrandom missing data.

<sup>&</sup>lt;sup>32</sup>This threshold was the minimal height possible to fight in the Italian Army, which had been lowered from 154cm in the first months of 1917. Anecdotal evidence suggests lowering the height was a common way to obtain exemptions for medical reasons before the war, however by 1917 exemption criteria had been substantially tightened.

<sup>&</sup>lt;sup>33</sup>Differences in such an outcome, assuming no differences in the age structure of towns, could indicate both errors in the way birth registries/draft lists were kept, or intentional tampering of these records.

town,<sup>34</sup> controlling for geographical and pre-determined characteristics.<sup>35</sup> in the 1814-1870 period, looking at towns from the provinces of Ivrea and Saluzzo.<sup>36</sup>

Table D.1 presents results from the same specification. Because of the very small number of towns with tax data available, I first present results from all the towns in my sample not hosting a tax collector's residence (columns 1 and 2); I later show results for towns from a sample selected according to the criteria presented in section 4 (columns 3 and 4). Columns (1) and (3) of Table D.1 estimates equation 4.1 including only town-pair and province fixed effects, focusing on towns not hosting a tax collector's residence. In columns (2) and (4) I also include several pre-determined controls, including the population of the town in 1821, geographical characteristics of the town, and the distances from relevant towns (Turin, province capitals, and historical division capitals). In Figure D.1 and Table D.2 I present results from the same regressions, using per capita local tax revenues as outcome.

Results from Figure 4 and Table D.1 show a negative effect of distance from a tax collector on the taxes levied by towns, both in the extended and the restricted sample. In the extended sample, the estimate of the coefficient of interest is lower in size when including all the controls, but remains significant at the 5% level. Interpreting inverse hyperbolic sine transformations as percent changes, a 1% increase in distance from tax collector's residence leads to 0.43%-0.69% reduction in taxes levied by municipalities; a 1km increase in such a distance leads to an around 9%-15% decrease in local taxes raised. When restricting the analysis to the sample defined in section 4 the estimated coefficient is not stable across specifications, and it is not significant in the baseline specification; however, it is negative and significant (on top of being substantially large in size) when controlling for pre-determined characteristics; in such a specification, a 1km increase in distance from a former tax collector's residence leads to an around 29% reduction in taxes levied. The substantially small sample size (in particular if compared to the number of fixed effects included in the regression) makes results from such analysis only suggestive, but still consistent with the government having higher fiscal capacity in towns closer to the tax collector's residence.

It must also be noted that taxes collected by a town's government may vary both because of differences in the effectiveness of tax enforcement, or because towns decided to levy fewer taxes; in this context, the distance of a town from a tax collector's residence is likely to affect

<sup>&</sup>lt;sup>34</sup>As described in section 2.1, towns' governments relied on tax collectors to raise both direct and indirect taxes; according to calculations based on Fossati (1930) local taxes accounted for 15% of all the taxes a collector had to raise

<sup>&</sup>lt;sup>35</sup>Given the skewed distribution of local taxes and the presence of towns raising zero taxes, I use an inverse hyperbolic sine transformation of the outcome.

<sup>&</sup>lt;sup>36</sup>The relationship showed in the Figure 4 is based on the same specification defined in equation 4.1 and the sample restriction presented in section 4, plotting the binned scatter of the residual variation underlying the estimation of  $\beta$  after accounting for population and geographical controls.

both dimensions, proxying for both the enforcement capacity in that town and the tax rates set endogenously by a local administration aware of the enforcement capacity available. Yet, while potentially arising from both these channels and being estimated on a very low number of towns and clusters,<sup>37</sup> the effects in Table D.1 suggest how distance from a tax collector was indeed associated to citizens paying fewer taxes in the 1814-1870 period. Therefore, these results support the strategy of using distance from the residence of a tax collector's residence as a measure of the government's fiscal capacity in the 1814-1870 period.

## 6.2 Historical fiscal capacity and draft evasion in WWI

In Table 1 I present estimates of equation 4.1 testing the effects of distance from former residences of tax collectors on the share of draft evaders from the 1899 cohort. Column (1) of Table 1 shows results including only town-pair and province fixed effects. In column (2) I include controls for town-level geographical characteristics (which may have influenced the location of tax collectors' residences before 1870), while in columns (3) I include controls for town-level averages of individual-level variables (height, literacy, being exempted for health reasons, resident abroad), and several town-level variables potentially determined after the implementation of the treatment (e.g. presence of other public offices; presence of a train station; population in 1901), which may nonetheless affect the decision to evade the military draft.<sup>38</sup> Results show that towns farther from the former residence of a tax collector have significantly higher shares of draft evaders born there in 1899. The estimated effect of distance almost doubles in size when including town-level geographical controls, and it is significant (on top of being larger in size) also when including controls for individual characteristics and post-treatment town-level characteristics. Depending on the specification, a 1% increase in distance from a former tax collector's residence leads to a 0.015-0.036 p.p. increase in the share of evaders in the town; the effect is non-negligible in size, as a 1km increase in distance corresponds to a around 0.4 p.p. higher draft evasion rate when controlling for geographical and pre-determined controls, an 8.7% increase compared to mean evasion in the estimation sample.

In Table 2 I exploit the individual nature of my draft evasion data, and report estimates of equation 4.2, testing the effects of distance from former residences of tax collectors on the likelihood of individual citizens to evade the military draft, as measured by a binary individual-level variable. In order to inspect how the effect of historical fiscal capacity compares to (or is correlated with) the capacity of the government to enforce the military draft in 1917, I also augment the specification in equation 4.2 with the inclusion of the

 $<sup>^{37}</sup>$ The two regression samples include 120 or 36 towns respectively, located in 36 or 16 tax districts.

<sup>&</sup>lt;sup>38</sup>Figure 5 plots the binned scatter of the residual variation underlying the estimation of  $\beta$  in the specification from column (1) of Table 1.

distance of the town of residence of a citizen to the closest police station. Column (1) estimates the association between distance from a former tax collector's residence and the likelihood of draft evasion without covariates, column (2) does the same for distance from the closest police station, and columns (3) to (5) report the two coefficients together, adding covariates in the same fashion as in Table 1. Consistently with results at the aggregate level, Table 2 shows a negative and significant effect of my proxy of historical fiscal capacity on the likelihood that a citizen born in the towns evades the military draft. Additionally, the estimates show that the historical fiscal capacity effect remains positive and significant also when controlling for distance from a police station; remarkably, the estimated size of the effect is essentially unchanged with respect to the specification without distance from a police station.<sup>39</sup>

As expected, distance from a police station is positively (and significantly) associated with the likelihood of evasion of the military draft; however, its estimated effect is substantially smaller compared with the historical fiscal capacity effect. It is important to notice that police stations are not allocated randomly on the territory: as a consequence, in absence of information on their precise catchment areas, the effect of distance from them cannot be estimated causally in this context. Furthermore, while proximity to a police station may look like an intuitive proxy of law and draft enforcement (also, for draft enforcement, anecdotal evidence is strongly consistent with the territorial police having an important role in chasing evaders), it is likely that in times of war the allocation of policemen on the territory might be altered, so introducing measurement bias in the enforcement capacity of the Italian state. Nonetheless, results from Table 2 show how the effect of historical fiscal capacity is distinct from effect of differential capacity to enforce the draft.<sup>40</sup>

## 6.3 Placebo test: legal capacity and draft evasion in WWI

In this section I replicate the aggregate analysis proposed insofar on another sample, the one of citizens drafted in the Italian province of Vicenza (the Vicenza sample),<sup>41</sup> applying sample restrictions similar to the ones adopted for the main sample and described in section 4.3.<sup>42</sup> As mentioned in section 2.1, citizens born in the province of Vicenza (like every citizen

<sup>&</sup>lt;sup>39</sup>Also for specifications with covariates, the estimated coefficients of the effect of my proxy for historical fiscal capacity without controlling for distance from a police station (not shown here) are very similar to the ones shown in columns (4) and (5) of Table 2.

<sup>&</sup>lt;sup>40</sup>Note that the estimation sample does not include individuals born in towns that had the closest police station in the tax district capital.

 $<sup>^{41}</sup>$ Table E.2 presents summary statistics of town-level characteristics in the Vicenza sample.

<sup>&</sup>lt;sup>42</sup>Provinces of Veneto like Vicenza, from its annexation to Italy until World War I, had a slightly different administrative structure than other Italian provinces: they were partitioned in *distretti*, and not divisions (*circondari*). As *distretti* were much smaller than *circondari*, excluding towns for which a judicial district capital hosted a *distretto* would reduce the number of observations too much. As a second-best alternative, for the Vicenza sample, I exclude

living in an Italian territory not belonging to the Sardinia Kingdom before 1861) were also living in towns partitioned in districts; however, these districts were only used for judicial purposes, with the district capital hosting a court in charge of handling minor cases. As a consequence, this analysis provides insights on how some components of *legal* capacity (both historical and contemporaneous, as proxied by distance from a local court) may have on the likelihood of citizens to evade the military draft, as well as the effect of distance from a relevant town.

In Table 3 I report estimates of equation 4.1 on the Vicenza sample,<sup>43</sup> while in Figure 6 I show the relationship between distance from a judicial district and the share of draft evaders in a town of the Vicenza sample (controlling for town-pair fixed effects and pre-determined characteristics).

Results from the Vicenza sample suggest the effect of distance from a (judicial) district capital are very different from the one estimated on the sample from Turin (which could potentially conflate legal capacity and historical fiscal capacity effects). Coefficient estimates are mostly negative, <sup>44</sup> smaller in size compared to the Turin ones, and consistently not significant. <sup>45</sup>

The estimation sample from the province of Vicenza has around 14% fewer draft evaders than the province of Turin, which could be a result of the potentially different coding of the *Draft Evader* variable performed by VSA. It must also e noted that Vicenza was very close to the Italian battlefront during WWI, hosting the headquarters of many regiments; overall, the military draft may have been more enforced differently in Vicenza compared to the Turin province. However, despite a slightly lower baseline evasion level, equations 4.1 and 4.2 allow to recover the causal impact of legal capacity on draft evasion provided that (within town-pairs) distance from a local court is not correlated with differential enforcement of the draft, a plausible assumption given that most districts were far from the battlefront and local courts were not responsible for handling cases of draft evasion or desertion. While the specificity of the province under analysis suggests some caution in interpreting results from it, evidence from the Vicenza sample strongly supports the claim that the effects observed in Turin should be attributed to historical fiscal capacity, and not to proximity to local courts.

It may be surprising to see a variable correlated to legal capacity having no effects on

towns for which the judicial district capital was also the province capital. Results from the Turin sample using this alternative sample restriction are consistent with the ones showed in section 6.2.

<sup>&</sup>lt;sup>43</sup>The set of covariates used as control variables in this analysis is slightly smaller than the one used in the analysis for the sample of Turin, as I miss two individual-level controls for every drafted citizens, i.e. height and literacy level. I also use imputed population in 1843-1844 (computed as explained in section B.3) in place of population in 1821, an information available only in the Turin sample.

<sup>&</sup>lt;sup>44</sup>The estimated coefficient is positive only in column (3), where I control for post-treatment town-level characteristics.

<sup>&</sup>lt;sup>45</sup>in Table E.1 I present results from individual-level regressions on the Vicenza sample, that confirm how the estimated effect of legal capacity does not seem to affects draft evasion, or at best has a very different effect on it.

draft evasion, a decision linked to rule-following behaviour. However, the particular nature of the courts under analysis can explain the effects found in the Vicenza sample. Indeed, local courts in the judicial district capitals only handled minor criminal and civil cases, while most cases (and the relevant ones) were handled by courts located in the division's capitals; as a consequence, it is plausible that the legal capacity of the Italian state (and Piedmontese state before) could not be proxied by the distance from a local court. As a consequence, the analysis from the Vicenza sample cannot provide conclusive evidence on the effect of legal capacity on culture; however, it is valid to attenuate concerns about legal capacity driving the effects found in the Turin sample.

#### 6.4 Robustness

As an alternative empirical strategy, I follow Cantoni (2020) and estimate the effect of historical fiscal capacity on draft evasion relying on a less demanding specification. In particular, I rely on a border fixed effects design where I regress the share of draft evaders born in a town on the distance of the town from the former residence of its tax collector and a full set of border fixed effects, equal to one for all the towns on the two sides of the boundary between two tax districts. As shown in Table F.1 results from the border fixed effects analysis are consistent with the ones obtained using the town-pairs fixed effects design: estimated coefficients are positive and significant once controlling for geographical and pre-determined characteristics. While the town-pairs design is useful in maximizing the comparability between towns differing in distance from a district capital, using border fixed effects attenuates potential concerns arising from the presence of multiple observations per town (1,52 on average compared to 1,72 in the main analysis).

I also provide evidence that the results from the Turin sample presented in this section are qualitatively robust to alternative measures of historical fiscal capacity or to other sample selections.

In columns (1) and (2) of Table F.2 I present results using the log of euclidean distance from a former tax collector's residence as main explanatory variable, while in columns (3) and (4) I use log cost-distance (computed using the Human Mobility Index by Özak, 2010); finally, in columns (5) and (6) of the same table I show results where I measure historical fiscal capacity with a binary variable, indicating whether a town (within a couple) is farther

Share 
$$Draft Evaders_{tb} = \gamma_b + \beta \log Dist. Tax Collector_t + \mathbf{V_t}\delta + \varepsilon_{tb},$$
 (6.1)

where b denotes a border between two districts the town is on. Note that, given the small size of the districts, several towns share their boundaries with several borders between districts, so the standard errors are again clustered both at the tax district and district-border level.

<sup>&</sup>lt;sup>46</sup>For this analysis, I estimate the equation:

from its former tax collector's residence compared to the other town. The effect of historical fiscal capacity on draft evasion remains negative regardless of the measure adopted; using a binary treatment, I disregard important variation in the main distance of interest so that coefficients of distance from tax collector's residence are noisily estimated; nevertheless, they are consistently positive and non-negligible in size.

To further alleviate concerns related to multiple counting of towns in my matching procedure, in columns (1) and (2) of Table F.3 I replicate the main analysis but use only one match for each town in the regression sample. More specifically, I use the following procedure: first, I select towns and town-pairs using the same criteria as in section 4.3; second, I match them to all the contiguous towns on the other side of the district border (that respect the criteria described in section 4.3); third, for each town, I keep only the pair with the closest<sup>47</sup> matched town on the other side of the border. Results are remarkably comparable in magnitude to the ones obtained using all the pairs, while being more noisily estimated; therefore, estimates from such analysis provide additional evidence that the results of the main analysis are not simply driven by the presence in the sample of multiple observations per town.

In columns (3) and (4) of Table F.3 I slightly vary the sample composition, excluding towns whose tax collectors' residence coincided with the province capital (instead of the division capital); results are similar with the ones presented in section 6.2. Consistent results are also shown in columns (5) and (6) of Table F.3, where I use more demanding division fixed effects. In columns (7) and (8) of the same table I also allow for tax districts' capitals to be in the sample, provided they did not host a police station. Using this (unbalanced) sample, the estimated effect of distance from a tax collector remains positive, despite being noisy and of substantially smaller size compared to the main results.

In columns (9) and (10) of Table F.3 I find consistent results when restricting my analysis to towns of birth of citizens in the province of Turin, therefore excluding all the towns of Piedmont out of this province where migrant men living in Turin were born. Such analysis addresses the concern that aggregate analyses based on the share of draft evaders out of the total number of draftees in my sample would not be reliable in towns for which the total number of draftees cannot be determined in a precise way. By focusing on towns of birth in the province of Turin, while reducing the sample size, it can be assured that the overwhelming majority of men of the 1899 cohort will be included in the sample. Such results reassure that the relelvant variation in the results comes from the vast majority of

 $<sup>^{47}</sup>$ I measure the closeness between two towns using the euclidean distance between their centroids.

<sup>&</sup>lt;sup>48</sup>Note that, while reducing the number of observations, following this approach some towns are still repeated multiple times in the dataset: this is a consequence of a town being the closest match for more than one other town. Therefore, I adopt the same empirical specifications described in 4.2, including the double clustering procedure.

observations for which measurement quality of the outcome variable should not be a concern.

Table F.4 shows that my main results are robust when accounting for spatial correlation using several cut-off distances. Finally, Figure F.1 provides estimates of Oster (2019)'s degree of selection on unobservables relative to observables, which provides evidence that my results are unlikely to be driven by unobservable heterogeneity in town's characteristics.

### 7 Mechanisms

### 7.1 Channels of transmission: culture vs. institutions

In this section I provide evidence on the potential mechanisms of transmission of the effect of historical fiscal capacity in Piedmont. On the one side, while institutions for tax collection under analysis were no longer in place in 1917, they might have shaped the subsequent institutions of towns that were in place under the Italian Kingdom, including institutions potentially affecting the decision to enlist in the Army, or evade the military draft (e.g. draft enforcement or rule enforcement in general). On the other side, historical fiscal capacity may affect military draft evasion in the long run because it affects the culture of individuals, and potentially of a community in a persistent way (see e.g. Nunn and Wantchekon, 2011). I test for culture as a mechanism of transmission focusing on the sample of internal migrants in my data. These citizen were born in a given town, but were living in a different town at age 18. As a consequence, studying their decision to evade the military draft allows to disentangle institutional factors (which pertain to the town of residence of the citizen) from cultural determinants of the decision to evade the military draft (more likely to be a characteristic of the town of birth of citizens, and arguably of their parents). I therefore estimate equation 4.2 on the sample of migrants only, and include town-of-residence fixed effects in the regression. In such a demanding specification, I estimate the effect of historical fiscal capacity on draft evasion leveraging only variation between individuals born in two neighbouring towns (on borders of their tax districts), but living in 1917 in the same town. Town-of-residence fixed effects allow to estimate the cultural component in historical fiscal capacity, as every external (institutional) factor would be the same for citizens under analysis, while historical fiscal capacity in their towns of birth would be different.

In Table 4 I present results from such analysis. While coefficients are less stable than in the main results (possibly because of the smaller sample size), they are all substantially larger than those estimated on the sample of natives and migrants; furthermore, they are statistically significant when controlling for geographical and predetermined town characteristics. These results are consistent with the hypothesis that the effect of fiscal capacity persists in time by affecting the culture of communities exposed to it, rather than through persistent differences in institutions.

A way to test directly for institutions as a channel of transmission is to study whether historical fiscal capacity had a persistent effect on the ability of towns' governments to collect taxes in the long run, despite the disappearance of the tax districts under analysis. 49 Indeed, towns may have inherited differences in fiscal capacity from the pre-1870 system, with towns previously closer to the tax district capitals more able to retain best practices in tax collection. Using data on town-level taxation in 1884 and 1895 I investigate whether transmission through institutions may be at play, and whether distance from a tax collector's residence before 1870 predicts differences in taxes collected even when tax districts did not exist anymore; importantly, being such data available for every Italian town, such an effect can also be tested in the sample of towns used in the main analysis having draft evasion as the outcome of interest. In particular, I estimate the equation:

$$Local Taxes_{tcy} = \gamma_{cp} + \beta_1 \, \mathbb{1}_y^{1846} Distance_t + \beta_2 \, \mathbb{1}_y^{1884} Distance_t + \beta_3 \, \mathbb{1}_y^{1895} Distance_t + \lambda_y + \sum_{p \in P} \mathbf{V_t} \, \mathbb{1}_y^p \delta_p + \varepsilon_{tcy},$$

$$(7.1)$$

where t indicates the town, c a town-couple (or town-pair),  $p \in P$  a period, and y a year;  $\lambda_y$  are year fixed effects, P can be two periods (pre- and post-1870) or tax years (1846, 1884 and 1895) and I allow for the effect of control variables  $V_t$  and couple fixed effects  $\gamma_{cp}$  to vary before and after the removal of tax districts.  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  estimate the separate effects of log distance from a tax collector in the 1814-1870 period on taxes collected in 1831/1846, 1884 and 1895, respectively. Results from Figure 7 (where I plot the coefficients from equation 7.1 both for the Ivrea and Saluzzo sample and for the main estimation sample) show that, even if the distance from a former tax collector's residence still has a negative effect on taxes collected by towns, the estimated coefficients in 1884 and 1895 are substantially smaller in size compared to the ones estimated before 1870. This suggests a dissipation in time of the specific ability of town governments to collect taxes as a result of proximity to tax collectors; as a consequence, such evidence (together with the results on migrants' likelihood to evade the draft) strongly suggests that the effect of historical exposure to higher fiscal capacity affects draft evasion through a change in the culture of affected communities.

<sup>&</sup>lt;sup>49</sup>Another strategy would involve studying how the distance of the town of residence of a drafted man from a former tax collector's residence affects the decision to evade the military draft. However, most migrants settled in larger towns and cities like Turin, which often were former tax district capitals: in these cases, distance from a former tax collector's residence would be zero, and as a consequence, there is too small variation in such distance to estimate its effects on migrants' decisions credibly.

<sup>&</sup>lt;sup>50</sup>Because of the small number of observations in the Ivrea and Saluzzo sample, in my preferred specification I present results interacting control variables with pre- and post-1870 fixed effect; as shown in Figure D.2 and Table D.3, the pattern is similar also when interacting them with years fixed effects.

Fiscal capacity is likely to induce rule-following norms able to persist in time, particularly when the citizen has to interact with the state, and the state imposes requests to the citizen. Because of the sample selection and the results in section 5, the effect is unlikely to be driven by fear of police enforcement that transmits over time. This hypothesis is also supported by the results from the placebo test on the Vicenza sample, which shows no effect of distance from a minor court on draft evasion. While it is possible that citizens are less likely to evade because of a general fear of enforcement instilled by tax collection that persists in time, it is not straightforward to interpret these results as fear of enforcement when the estimated effect of distance from a police station (presented in Table 2) is consistently smaller than the estimated effect of historical fiscal capacity. Rather, these results are consistent with fiscal capacity incentivizing citizens to engage in patterns of rule-following behaviour, and ultimately getting used to being requested of something from the state.

### 7.2 Norms of rule-following

Results of the analysis show that the capacity of a state to tax citizens, in the context of Piedmont, is able to shape the cultural norms of communities, and affect high-stakes decisions (such as enlistment in the Army or draft evasion) in the long run. In light of these results, a potential mechanism through which the capacity to collect taxes may affect draft evasion in the long run is the emergence of rule-following norms that prescribe how to interact with the central state, and potentially to obey its requests.

Citizens exposed for more than 50 years to higher fiscal capacity probably got accustomed to paying taxes, and recognizing the legitimacy of the state's financial requests: such behaviour would generate a norm of tax compliance. If respecting norms of tax compliance produced spillovers on other norms of rule-following (in a logic similar to Keizer et al., 2008), then fiscal capacity would be able to foster the emergence of a general norm of rule-following, able to affect also the decision to evade the military draft.

Evidence of such a mechanism has been recently found by Heldring (2021). Studying how the length of exposure to a pre-colonial centralized state predicts differences in the intensity of government-backed mass killings in 1993 Rwanda, Heldring (2021) shows how such a relationship is explained by the emergence of a "culture of obedience", for which in communities that had historically been under a centralized for a longer time citizens were a priori more likely to obey the state's requests. Such a mechanism can explain findings from my analysis, where a more intense presence of the state through its tax collection could have eventually generated a norm of obedience to the law.

While I cannot empirically confirm nor disprove this hypothesis, it is consistent with the main results and with the finding that the effect of fiscal capacity is mostly transmitted through culture (instead of institutions), which reinforces the interpretation for which the

effect of fiscal capacity persists thanks to the emergence of new norms and, potentially, norms of rule-following.

Additionally, while previous research found evidence of several other mechanisms through which the state can affect cultural norms and their effects on citizens' actions (public good provision, legitimacy recognized to the state; trust in the state's recommendations; perceived fairness of taxation), in the remainder of this section I provide evidence that none of them is likely to be at play in my setting.

### 7.3 Public good provision

A plausible interpretation of the main result links the decision to go to war to the provision of public goods, or public funds more generally (Caprettini and Voth, 2023). Indeed, if higher fiscal capacity in a town allowed to fund more public goods, public good provision could induce a sense of gratitude towards the state; this may in turn explain lower levels of draft evasion in towns closer to a former tax collector's residence.

In Table 5 I test for this channel, testing the effect of historical fiscal capacity on several indicators of public goods provision, both under the Piedmontese state and the Italian one (before and after 1861). In columns (1) and (2) I look at funding received by charity institutions and hospitals (measured in 1840) that were funded by the central government, while in columns (3) to (6) I study the effects on total spending on primary schools in 1863 (when funds for such schools came almost entirely from town governments) and on kindergartens in 1869; in columns (7) and (8) I look at the presence of sewage infrastructure in the town, and in columns (9) and (10) I test for effects on the number of physicians paid by the town's government, using data from Direzione Generale della Statistica (1886a).<sup>51</sup> Overall, looking at measures from both before and after the Italian unification, the results show that towns subject to higher fiscal capacity were not receiving more public goods provision at the central or the local level. Also, this evidence complements the result shown in columns (5) and (6) of Table C.2, where I show that towns where historical fiscal capacity was higher, were not significantly more likely to have a post office or a train station, two other outcomes that can be related to public good provision.

Taken together, these results do not support the hypothesis that differences in public good provision between towns drive the effect of historical fiscal capacity on draft evasion. While this result seems in contrast

<sup>&</sup>lt;sup>51</sup>The role of investment on public schools on draft evasion may be twofold: first, it was a clear sign of public good provision from the government; second, as shown by several pieces of evidence, it may have been conducive in instilling a patriotic attitude in pupils and a building a unique national identity (Chilosi, 2007; Alesina et al., 2021; Blanc and Kubo, 2021)

#### 7.4 Alternative mechanisms

Another potential mechanism through which historical fiscal capacity may affect the decision to enlist for war is perceived higher state capacity, and linked to this, higher patriotism of citizens exposed to more effective tax collection. The rationale for this mechanism is the following: tax collection may send a signal of higher state capacity in general, and citizens may react perceiving higher returns from participating to war, as they may be more likely to think their country is an entity worth defending.<sup>52</sup> This effect may translate into patriotism if state presence (signalled by the presence of tax collectors) induces citizens to identify more with the central state.

In columns (1) and (2) of Table 6 I test for the effect of historical fiscal capacity on patriotism using as outcomes the share of citizens born in a town who received a Medals of Honor during WWI.<sup>53</sup> Receiving a Medal of Honor is an outcome that signals heroic actions, and therefore more correlated to genuine patriotism than rule-following. While the baseline estimate shows that distance from a tax collector has a negative and marginally significant effect on the share of medals received by citizens, the coefficient is unstable and turns positive (and not significant) when controlling for geographical and pre-determined characteristics. I further investigate for higher patriotism in towns with higher historical fiscal capacity looking at first names of drafted citizens, and computing the share of drafted citizens bearing the name of the King or former kings of the Savoy family.<sup>54</sup>. As shown in columns (3) and (4) of Table 6, distance from the former tax collector's residence does not predict sizeable or significant differences in the share of citizens named after a Savoy king. Overall, these results do not support the hypothesis that in the Piedmontese setting historical fiscal capacity of the state increased the patriotism of citizens, nor that it affects the enlistment or evasion decision through this channel.

It is still possible that citizens (as a consequence of higher historical fiscal capacity) may enlist because they perceive higher value in defending the country, while not being more patriotic. While this hypothesis cannot be tested directly, it is inconsistent with the absence of effects of historical state capacity on public good provision presented in section 7.3: indeed, even if more effective tax collection could have signalled overall higher state

<sup>&</sup>lt;sup>52</sup>A similar theory has recently found support in Weigel (2020) who studied the causal effects of tax collection on political participation in Congo.

<sup>&</sup>lt;sup>53</sup>Data on Medals of Honor pertain only soldiers who died in war; the construction of the variable is explained in detail in Appendix B.3.

<sup>&</sup>lt;sup>54</sup>First names have been widely used to measure cultural traits: indeed, naming of a child is an important decision for parents, who can in this way signal their cultural preferences (Fryer Jr and Levitt, 2004; Fouka, 2019; Abramitzky et al., 2020; Russo, 2019; Bazzi et al., 2020; Beck Knudsen, 2019; Varnum and Kitayama, 2011; Giuliano and Tabellini, 2023). The use of names of Savoy kings in this setting is convenient as they were relatively few and infrequent. In addition, compared to the share of Medal receivers, this measure pertains to all drafted citizens, and not only dead male citizens who did not evade the military draft.

capacity when the tax collection system under analysis was introduced, by 1917 citizens would have perceived that higher tax collection was not translating into a higher capacity of the state to provide public goods to them.

Rule-following behaviour may also emerge if higher fiscal capacity lead to fairer taxation, which may have induced citizens to update their attitudes towards the state positively. While systematic tax collection could have been perceived as fairer in towns where fiscal capacity was higher (a hypothesis that has found support in Weigel and Ngindu, 2021), tax collectors in Piedmont were only asked to collect taxes, and were not involved in broadening the tax base or correcting inaccuracies of the cadastre: their role was to enforce tax obligations, and not increase the fairness of the tax system; as a consequence, while it is not possible to test for such mechanism, it is unlikely to be at play given the specifics of the Piedmontese tax system.

Finally, a mechanism behind the main results could work through the legitimacy of the state and trust in it: through the presence of a public office (like the tax collector's one) and its capacity, the state might have established its legitimacy and, in turn, foster the emergence of generalized trust in the Italian institutions and in their provisions; citizens would then enlist more in towns where fiscal capacity was higher because of trust in what the state's prescribed. If such an attitude emerged, it would have also affected choices in which the citizen did not have to decide whether to respect or break the law, but could nonetheless follow the state's recommendation. To test for the effect of historical fiscal capacity on trust, I use data on the share of children vaccinated against smallpox and test whether distance from a former tax district capital predicts differences in vaccination uptake between 1880 and 1884.<sup>55</sup> Results in columns (5) and (6) of Table 6 provide no evidence of higher vaccine uptake in towns closer to former tax collector's residences: coefficients are mostly positive, small in magnitudes and not significant. Therefore, such results do not support the hypothesis that higher historical exposure to fiscal capacity increased citizens' trust in the state.

<sup>&</sup>lt;sup>55</sup>Vaccine uptake has already been used as a proxy of trust in institutions by previous research (see e.g. Marciante (2023) for the case of Italy). In this context, there are several reasons to believe that the share of vaccinated children measures mostly trust towards the government: smallpox vaccine was distributed free of charge; distribution was granted in each town (Direzione Generale della Statistica, 1886b) and was administered in the Sardinia Kingdom at least from 1818 (Commissione Superiore di Statistica, 1852); and finally, while mandatory only to attend primary school (at age 6), smallpox vaccination was encouraged from the first year of life of a child, as later formalized in 1888 in the Crispi-Pagliani Law with mandatory vaccination for every newborn. This also implies that in 1880-1884 families not vaccinating their newborns were not facing serious legal consequences. The lack of data on vaccination after 1888 or on vaccinated children in primary schools makes it impossible to test for the role of norms of obedience in vaccine uptake.

### 8 Conclusion

In this paper I provide evidence that higher fiscal capacity of the state increases citizens' compliance with rules that ask them to perform costly actions. This increase in compliance is visible generations after the removal of the institutions that created differences in the capacity of the state to collect taxes. By enforcing taxes, the state can induce compliance with the law also in domains that are not directly related to taxation.

Crucially, tax collection improves compliance by shaping the cultural norms of citizens. By collecting more tax revenues, a state with high fiscal capacity is clearly able to build higher capacity to enforce laws and implement public policies effectively. However, evidence from this paper shows that even in cases where fiscal capacity does not generate differences in other dimensions of state capacity (such as within pairs of neighbouring towns) tax collection may prove to be a precious tool for the government, by fostering the emergence of norms of rule-following.

My results point to a novel interpretation of fiscal capacity's contribution to the state capacity building process. While tax collection is often the starting point needed to build an effective state infrastructure, this paper shows that, by increasing compliance with the law, fiscal capacity can indirectly facilitate state building, by reducing the resources that a state needs to allocate for law enforcement. Finally, looking specifically at compliance with the military draft, this paper shows that fiscal capacity contributes to state capacity by improving military enlistment (Qian and Tabellini, 2021), which makes a state more able to fight—and defend itself—during wars.

It is still to be understood how other components of state capacity (as, for instance, legal capacity) affect cultural norms, and which component of state capacity has the larger effect on culture. Furthermore, this paper leaves open the question of how long run effects of fiscal capacity may influence cultural norms more generally, and not only in situations when the citizens have a direct interaction with the state.

Finally, while this paper shows that systematic tax collection can induce citizens to respond more positively to the requests of the state, intuitively the act of taxing citizens can also make them hostile to the state, and ultimately reduce compliance with the law (Besley et al., 2021). Future research on the conditions that make one of these two channels prevail will be important to inform policymakers on how to fine-tune tax enforcement policy.

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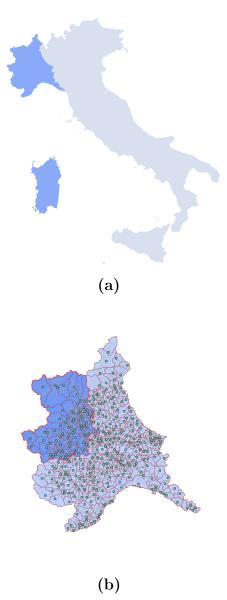
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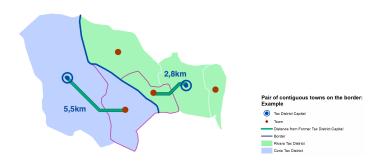
## Figures

Figure 1: Italy, Piedmont and Tax Districts



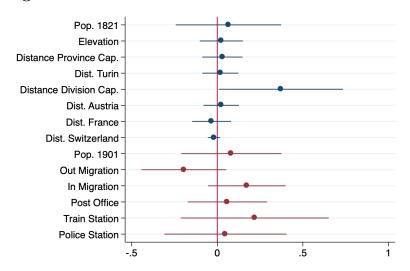
Notes: Panel (a) shows a map presenting in darker blue the territories of the Sardinia Kingdom (formal name of the area mostly corresponding to Piedmont and the Sardinian island) as a part of Italy; panel (b) zooms into Piedmont and presents its towns (the blue polygons), its tax districts (delimited by red borders), tax districts' capitals (green dots) and in darker blue the towns of the province of Turin in 1917, where the citizens' of the dataset lived at the time of the war. The shapefile of towns is constructed as explained in B.1, using data from ISTAT; the assignment of towns to tax districts follows Stefani (1855).

**Figure 2:** Town-pairs fixed-effects and walking distances from tax collectors' residences: example



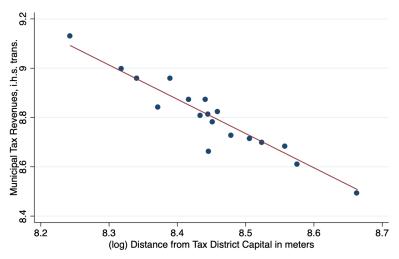
Notes: This map illustrates the identification strategy, showing two tax districts and highlighting one of the town-pairs used for identification. Blue circles represent tax district capitals (Corio and Rivara); red dots are the centroids of the other towns of the two districts; the red borders highlight two towns (Levone and Rocca Canavese) composing a matched pair of contiguous towns on the border; the two green lines represent the walking path between the town and its tax district capital (residence of a tax collector), computed as explained in 3.1. The shapefile of towns is constructed as explained in B.1, using data from ISTAT; the assignment of towns to tax districts follows Stefani (1855).

Figure 3: Balance of observable town-level characteristics



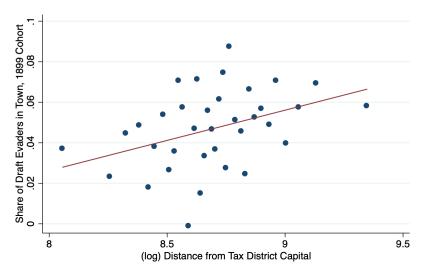
Notes: This figure shows  $\beta$  coefficients and 95% confidence intervals of separate regressions based on Equation 4.1, which controls for town-pairs and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in sections 4.2 and 4.3. The explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period. Dependent variables of the first set of regressions (in blue) are geographical or predetermined characteristics, namely: population of the town in 1821; logarithm of elevation of the town; distance from province capital, distance from division capital (Circondario), distance from Turin; distances from the Italian borders with Austria, France and Switzerland. Dependent variables of the second set of regressions (in red) are other town-level characteristics, namely: population in 1901; share of internal immigrants living in the town; share of citizens born in the town living elsewhere; indicator variables for the presence in the town of a post office, a train station, or a police station.

Figure 4: Distance from tax collector and municipal tax revenues, Ivrea and Saluzzo



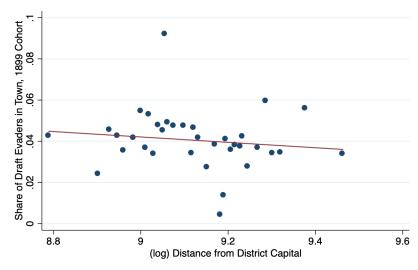
Notes: This figure presents graphical evidence on the relationship between the (log) walking distance of a town from a former tax collector's residence in the 1814-1870 period (computed as explained in 3.1) and the amount of taxes raised on behalf of the town government before 1870, transformed using the inverse hyperbolic sine function. Tax data are from 1846 and 1831-1834, and pertain to towns of the divisions of Ivrea (1846) and Saluzzo (1831-34), selected as explained in sections 4.2 and 4.3. The binscatter shows the association between the two variables after controlling for town-pair fixed effects, province fixed effects, and geographical and pre-determined characteristics (see B.3 for their descriptions).

Figure 5: Distance from tax collector and share of draft evaders



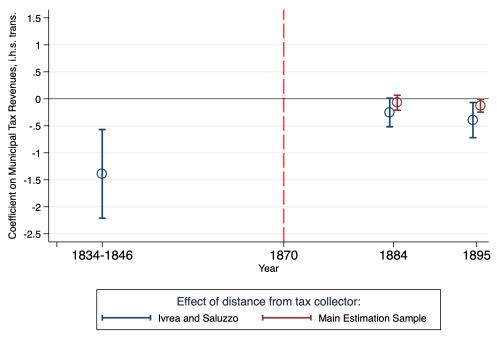
Notes: This figure presents graphical evidence on the relationship between the (log) walking distance of a town from a former tax collector's residence in the 1814-1870 period (computed as explained in 3.1) and the share of draft evaders of the 1899 cohort born in the town. Data are from towns of the Turin sample, selected as explained in sections 4.2 and 4.3. The binscatter shows the association between the two variables after controlling for town-pair fixed effects, province fixed effects and geographical and predetermined characteristics (see Table 1 for their description).

Figure 6: Placebo: Effect of distance from judicial district capital



Notes: This figure presents graphical evidence on the relationship between the (log) walking distance of a town from a judicial district capital (computed as explained in 3.1) and the share of draft evaders of the 1899 cohort born in the town. Data are from towns of the Vicenza sample, selected as explained in sections 4.2, 4.3 and 6.3. The binscatter shows the association between the two variables after controlling for town-pair fixed effects, province fixed effects and geographical and pre-determined characteristics (see Table 3 for their description).

**Figure 7:** Distance from tax collector and tax revenues, before and after the removal of tax districts



Notes: The figure presents graphical evidence on the relationship between (log) walking distance of a town from a former tax collector's residence in 1814-1870 and the amount of taxes raised by town governments both before and after the removal of tax districts in 1870. The outcome variable amount of taxes raised by town governments before 1870, transformed using the inverse hyperbolic sine function. Plotted coefficients and 95% confidence intervals are estimated using equation 7.1, which controls for year fixed effects, geographical and pre-determined characteristics (see Table 3 for their description), town-pairs and province fixed effects, and their interaction with a post-reform indicator variable (for the two years after the removal of tax districts). The coefficients plotted in blue are estimated using data from towns of the divisions of Ivrea and Saluzzo for which tax data before 1870 are available, while coefficients plotted in red are estimated using data from all the towns of the Turin sample; for both samples towns are selected as explained in sections 4.2 and 4.3.

## **Tables**

Table 1: Distance from former tax district capitals and share of draft evaders

	(	Share Draft Evader	rs .
	(1)	(2)	(3)
(log) Walking Dist. from Tax Collector	0.015**	0.030**	0.036***
(log) Walking Dist. Holl Tax Concetor	(0.006)	(0.012)	(0.011)
DV Mean	0.0472	0.0472	0.0472
Town-pair FE	yes	yes	yes
Province FE	yes	yes	yes
No district capitals	yes	yes	yes
Geographical controls	no	yes	yes
Mean individual controls	no	no	yes
Town-level controls	no	no	yes
Towns in sample	135	135	135
Observations	232	232	232
R-squared	0.587	0.681	0.776

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Mean of individual controls are town-level means of individual characteristics as measured by military data, including height, literacy, being resident abroad, and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from the closest police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\*\* p<0.05, \* p<0.1.

**Table 2:** Distance from former tax district capitals, distance from police and likelihood to evade the draft

			Draft Evade	r	
	(1)	(2)	(3)	(4)	(5)
(log) Walking Dist. from Tax Collector	0.013*		0.014*	0.049***	0.055***
	(0.008)		(0.008)	(0.018)	(0.016)
Walking Dist. from Police Station, i.h.s. trans.		0.004**	0.004**	0.004*	0.007**
		(0.002)	(0.002)	(0.002)	(0.003)
DV Mean	0.0658	0.0658	0.0658	0.0658	0.0658
Town-pair FE	yes	yes	yes	yes	yes
Province FE	yes	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes	yes
Geographical controls	no	no	no	yes	yes
Mean individual controls	no	no	no	no	yes
Town-level controls	no	no	no	no	yes
Individuals in sample	2112	2112	2112	2112	2112
Towns in sample	135	135	135	135	135
Observations	3,892	3,892	3,892	3,892	3,892
R-squared	0.051	0.053	0.053	0.067	0.076

Notes: The table reports estimates from Equation 4.2 (which controls for town-pair and province fixed effects), showing estimated coefficient  $\beta$  and the estimated effect of distance from the closest police station of the town of residence of the individual. Units of observation are individuals × townpair. In every column the dependent variable is a binary variable indicating whether the individual evaded the draft, or not. The sample includes all the individuals born in towns in Piedmont selected as explained in section 4.3. The first explanatory variable is the logarithm of the walking distance between the town of birth of the citizen and the residence of the tax collector of the town in the 1814-1870 period (or district capital), computed as explained in section 3.1. The second explanatory variable is the inverse hyperbolic sine transformation of the distance of the town of residence of the drafted citizen from the closest police station, computed in the same way as the first explanatory variable. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital. distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Mean of individual controls are town-level means of individual characteristics as measured by military data, including height, literacy, being resident abroad, and having had an exemption for medical reasons. Town-level controls include population in 1901 and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 3:** Placebo test: Distance from district capitals, and share of draft evaders in Vicenza

	Share Draft Evaders				
	(1)	(2)	(3)		
(log) Walking Dist. from District Capital	-0.007	-0.013	0.024		
	(0.025)	(0.034)	(0.025)		
$p ext{-}value$	[0.770]	[0.703]	[0.352]		
$Wild\ Cluster\ Bootstrap-t\ p-value$	[0.771]	[0.760]	[0.475]		
DV Mean	0.0405	0.0405	0.0405		
Town-pair FE	yes	yes	yes		
Province FE	yes	yes	yes		
No district capitals	yes	yes	yes		
Geographical controls	no	yes	yes		
Mean individual controls	no	no	yes		
Town-level controls	no	no	yes		
Towns in sample	55	55	55		
Observations	100	100	100		
R-squared	0.634	0.808	0.947		

Notes: The table reports  $\beta$  coefficients from Equation 4.1 estimated on the Vicenza sample (men drafted in the province of Vicenza), which controls for town-pair and province fixed effects. Units of observation are towns × town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. The sample includes all the towns out of Piedmont selected as explained in sections 4.3 and 6.3. The main explanatory variable is the logarithm of the walking distance between a town and the location of a minor court that had jurisdiction over the town (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Distretto), distance from Turin, distance from Genoa, imputed population in 1843-44. Mean of individual controls are town-level means of individual characteristics as measured by military data, namely being resident abroad and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from a police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. Square brackets indicate p-values from baseline specification and from wild cluster bootstrap (clustering in both cases at the tax district and district-border level). \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 4:** Distance from former tax district capitals and likelihood to evade the draft: sample of migrants

	Draft Evader				
_	(1)	(2)	(3)		
(log) Walking Dist. from Tax Collector	0.069	0.268**	0.423***		
	(0.045)	(0.109)	(0.092)		
$p ext{-}value$	[0.132]	[0.018]	[0.000]		
$Wild\ Cluster\ Bootstrap-t\ p-value$	[0.084]	[0.128]	[0.017]		
DV Mean	0.0103	0.0103	0.0103		
Residence FE	yes	yes	yes		
Town-pair FE	yes	yes	yes		
Province FE	yes	yes	yes		
No district capitals	yes	yes	yes		
Geographical controls	no	yes	yes		
Mean individual controls	no	no	yes		
Town-level controls	no	no	yes		
Individuals in sample	180	180	180		
Towns in sample	67	67	67		
Observations	291	291	291		
R-squared	0.430	0.599	0.660		

Notes: The table reports  $\beta$  coefficients from Equation 4.2 (which controls for town-pair and province fixed effects) estimated on the sample of internal migrants, and including town-of-residence fixed effects in each specification. Units of observation are individuals  $\times$  town-pair. In every column the dependent variable is a binary variable indicating whether the individual evaded the draft, or not. The sample includes all the individuals born in towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between the town of birth of the citizen and the residence of the tax collector of the town in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Mean of individual controls are town-level means of individual characteristics as measured by military data, including height, literacy, being resident abroad, and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from the closest police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. Square brackets indicate p-values from baseline specification and from wild cluster bootstrap (clustering in both cases at the tax district and district-border level). \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 5:** Distance from former tax district capitals and public good provision

	Expendit	ire on Charity	Expend	iture on	Expend	iture on	Presence	of Sewage	Number	Public-Paid
	and	Hospitals	Primary	Schools	Kindergartens		Systems		Physicians	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(log) Walking Dist. from Tax Collector	0.036	-0.746	-0.440	-0.028	-0.059	0.000	-0.005	0.000	0.034	0.019
	(0.488)	(0.704)	(0.279)	(0.206)	(0.103)	(0.326)	(0.005)	(0.017)	(0.082)	(0.095)
DV Mean	3.893	3.893	7.475	7.475	0.571	0.571	0.0129	0.0129	0.388	0.388
Town-pair FE	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Province FE	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Geographical controls	no	yes	no	yes	no	yes	no	yes	no	yes
Towns in Sample	135	135	135	135	135	135	135	135	135	135
Observations	232	232	232	232	232	232	232	232	232	232
R-squared	0.609	0.717	0.661	0.848	0.594	0.693	0.493	0.581	0.678	0.754

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. In columns (1) and (2) the dependent variable is total revenues (per town) of charity institutes funded by the Piedmontese government in 1840. In columns (3) and (4) the dependent variable is the amount of public expenditure on town's primary schools in 1862-1863. In columns (5) and (6) the dependent variable is an indicator for the presence of sewage systems in 1862-1863. In columns (7) and (8) the dependent variable is the number of physicians paid by towns' governments. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 6:** Distance from former tax district capitals, patriotism and trust

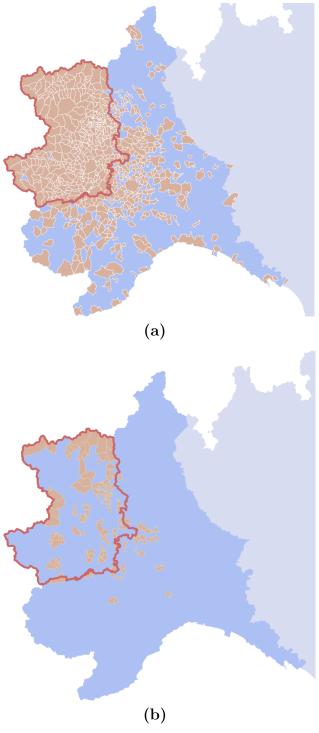
	Share Medals of Honor		Share Ki	ngs' Names	Share Vaccinated	
	(1)	(2)	(3)	(4)	(5)	(6)
(log) Walking Dist. from Tax Collector	-0.011* (0.006)	0.005 (0.008)	0.006 (0.005)	0.005 (0.007)	0.011 (0.033)	0.032 (0.047)
DV Mean	0.0425	0.0425	0.0185	0.0185	0.797	0.797
Town-pair FE	yes	yes	yes	yes	yes	yes
Province FE	yes	yes	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes	yes	yes
Geographical controls	no	yes	no	yes	no	yes
Towns in Sample	134	134	135	135	135	135
Observations	224	224	232	232	232	232
R-squared	0.585	0.734	0.538	0.635	0.525	0.701

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. In columns (1) and (2) the dependent variable is the share of soldiers born in the town who received a gold, silver or bronze Medal of Honor, computed on the sample of soldiers who died during World War I. In columns (3) and (4) the dependent variable is the share of male citizens born in the town named after a Savoy King. In columns (5) and (6) the dependent variable is the share of children vaccinated against smallpox between 1880 and 1884. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

# Appendix

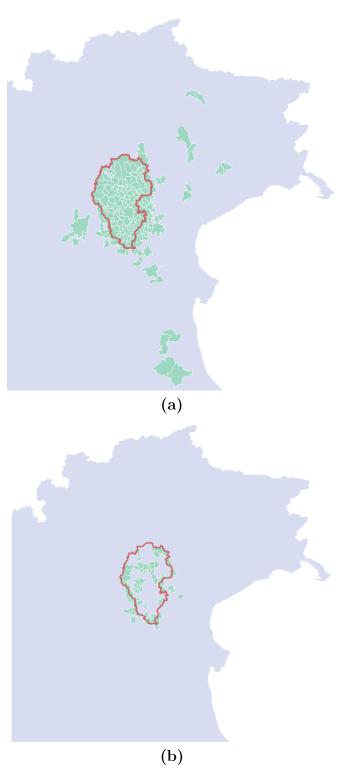
## A Additional figures

Figure A.1: Towns of birth of soldiers in Turin full sample and Turin regression sample



Notes: Panel (a) shows a map presenting in (in brown) all the towns in which at least one drafted citizen of the Turin sample was born. Panel (b) shows the towns of birth of citizens in the regression sample, selected as explained in sections 4.2 and 4.3. The shapefile of towns is constructed as explained in B.1, using data from ISTAT.

**Figure A.2:** Towns of birth of soldiers in Vicenza full sample and Vicenza regression sample



Notes: Panel (a) shows a map presenting in (in brown) all the towns in which at least one drafted citizen of the Vicenza sample was born. Panel (b) shows the towns of birth of citizens in the regression sample, selected as explained in sections 4.2 and 4.3. The shapefile of towns is constructed as explained in B.1, using data from ISTAT.

## B Data appendix

## B.1 Map of towns in the Turin sample and in the Vicenza sample

I build the dataset for the main analysis starting from a map of Piedmont before the Italian unification in 1861. I create this map combining complete lists of towns<sup>56</sup> belonging to Piedmont<sup>57</sup> with a shapefile of Italian towns in 2011. I use towns' and provinces' names to link towns in Piedmont to Italian towns in 1861, and then track changes in administrative boundaries of Italian towns to link them to the 2011 shapefile.<sup>58</sup> I compute the distance from a tax collector's residence using centroids of Italian towns in 2011.

I follow the same procedure when building the database for the Vicenza sample, using all the Italian towns not belonging to Piedmont before 1861.<sup>59</sup>

### B.2 Military data

I use data on drafted Italian male citizens that were living in the province of Turin in 1917 and were called to serve in the Army in that year. This sample includes the overwhelming majority of men born in 1899 living in the province of Turin at the time of the war and a limited number of older men who were exempted from the draft in previous years. I obtain my military data by collecting and digitising the lists of drafted men for all the towns belonging to the province of Turin in 1917 (around 5250 documents), publicly accessible at the Turin State Archive. For the city of Turin I collected information on all drafted citizens that were born in another town (i.e. internal migrants) and for a subsample of men born in Turin;<sup>60</sup> for all the other towns of the province (442 in 1917, 388 in 2011) I collected complete draft lists.

For the Vicenza sample, I collected data on all the men of the 1899 cohort living in the province of Vicenza by the time of the war; I obtain these data from ARSAS.<sup>61</sup>

## B.3 Variables' construction

Measures of historical fiscal capacity: distance from tax collectors' residence. I compute the distance of a town from the residence of its tax collector (using ArcGIS) as the natural logarithm of the optimal walking route in meters, computed using as impediment

 $<sup>^{56}</sup>$ Lists of towns in Piedmont are from 1821, 1848, 1901 and 2011.

<sup>&</sup>lt;sup>57</sup> formally, the mainland of the Sardinia Kingdom

 $<sup>^{58}\</sup>mathrm{I}$  track changes from 1861 to 2011 using data from Elesh (www.elesh.it ).

<sup>&</sup>lt;sup>59</sup>In this case, I build the dataset using lists of Italian towns from 1871, 1901 and 2011.

<sup>&</sup>lt;sup>60</sup>A limited number of drafted men were not included in the sample because of illegibility of the documents. Note that men born in Turin, a city that was hosting a tax collector's residence, would never enter the analysis sample as described in section 4.3.

<sup>&</sup>lt;sup>61</sup> Associazione Recupero Salvaguardia Archivi Storici, (accessible at www.arsas.org).

both elevation, weather patterns and soil conditions (using data from Özak, 2010 and Özak, 2018). Distances are computed between centroids of towns using ArcGIS. For the Vicenza sample, I use the same measure computed between a town and a (judicial) district capital.

As an alternative measure, I use the natural logarithm of the Euclidean distance between a town and its tax collector's residence, and the (natural logarithm of) the cost distance in days using again data from the Human Mobility Index by Özak (2010).

**Draft evasion.** I build my measures of draft evasion in the following way: first, I detect whether the individual was ever classified as a draft evader; second, I inspect whether the sanction of draft evasion was revoked later,<sup>62</sup> and classify as draft evaders only individuals for which the sanction was never revoked.

When conducting the analysis at the town × town-pair, I build my outcome variable as the share of draft evaders (classified as described above) in my lists born in the town over the total number of individuals in my lists born in the town. When conducting the analysis at the individual × town-pair, my outcome variable is a binary indicator for whether the individual was classified as a draft evader or not. In the Vicenza sample, I use a binary indicator for whether a citizen is a draft evader according to the classification provided by ARSAS, for which being enlisted, exempted or evader are mutually exclusive categories. <sup>63</sup>

#### $Geographical\ variables$

**Elevation.** I obtain elevation data of Italian towns in 2011 from ISTAT, and link them to the shapefile of Italian towns in 2011. I compute the natural logarithm of elevation and the natural logarithm of the standard deviation of elevation within the town.

**Area.** I obtain data on the area of towns in 2011 (surface in squared meters) from ISTAT, link them to the shapefile of Italian towns in 2011, and compute the natural logarithm of the town area.

Land suitability. I obtain data on land suitability from FAO (2015). This data is defined on a 9.25 x 9.25 km grid covering the entire planet. I join the rasters to the 2011 shapefile of Italian towns and assign to each town the potential yields with low-level inputs of the grid cells falling inside the town limits. I use land suitability for wheat, buckwheat, pasture grasses, barley, potato, oat, rice, and maize.

Coordinates. I compute the latitude and longitude of towns using the coordinates of their centroids, measured in degrees in the WGS84 UTM32N coordinate system.

**Distances from country's borders.** I compute the distances of a town's centroid from the Italian borders using ArcGIS.

<sup>&</sup>lt;sup>62</sup>For example, if the citizen showed up shortly later on, or was enlisted in another town, or joined the Navy.

<sup>&</sup>lt;sup>63</sup>In the classification by ARSAS, drafted citizens can only be "Enlisted", "Evaders" or "Exempt", without any motivation for the assignment to a category.

**Distance from Turin and Genoa.** I compute the distances of a town's centroid from the centroids of Turin and Genoa using ArcGIS.

**Distance from province capital.** I compute the walking distance of a town's centroid from the centroid of its province capital (with elevation as an impediment) using ArcGIS.

**Distance from division capital.** I compute the walking distance of a town's centroid from the centroid of its *Circondario* capital (with elevation as an impediment) using ArcGIS.

**Provinces and divisions: 1917**. I assign towns to their 1917 province.<sup>64</sup> For the Turin sample I assign towns to the division (*Circondario*) it belonged to before the Italian unification, which remained mostly unchanged until 1917. As the province of Vicenza did not have divisions like in the rest of Italy, I assign it to its *Distretto* (an administration similar to the division).

Tax and judicial districts. I assign towns in the Turin sample to the tax districts it belonged to in 1848 (according to Stefani, 1855). Towns in the Vicenza sample are assigned according to the districts they belonged to in 1871, shortly after they got annexed to the Italian Kingdom.

#### Individual characteristics

Illiteracy. I compute the share of illiterate male citizens in a town as the share of citizens in the 1917 military lists being unable or barely able to write (out of the total number of citizens in the 1917 lists born of the town).

**Height.** I compute the average height of male citizens as the average height for citizens present in the 1917 lists and born in the town who underwent the medical examination.

**International migrant.** I define the share of international migrants in a town as the share of citizens born in the town in the 1917 lists who were declared as being residents abroad in the military lists.

**Exempted.** I compute the share of citizens exempted for medical reasons in a town (out of the total number of citizens born in the town in the 1917 lists) by looking at the share of citizens who got any type of medical exemption (even temporary ones), and that in the Turin sample is not mutually exclusive with enlistment or draft evasion. For the Vicenza sample, I use the classification by ARSAS, for which being enlisted, exempted or evader are mutually exclusive categories.

#### Town-level characteristics

Local taxes in Piedmont. I obtain data on taxes raised by the tax collector on behalf of the town for the divisions (*circondari*) of Ivrea and Saluzzo. Data for the division of

<sup>&</sup>lt;sup>64</sup>Provinces of the towns in my sample did not change from the Italian unification until 1917.

Ivrea are kept by the Turin State Archive and pertain to taxes collected in 1846; data from the division of Saluzzo come from Eandi (1835) and pertain average taxes collected between 1831 and 1834. The amount of taxes raised includes both direct and indirect taxes. For each town, I compute the inverse hyperbolic sine transformation of taxes raised, in absolute numbers and per capita (using data on population in 1821).

Local tax revenues, 1884. From Direzione Generale della Statistica (1887) I collect data on the total amount of taxes collected by town governments in 1884. I compute per capita local tax revenues using data on towns' population in 1881.

Local tax revenues, 1895. From Direzione Generale della Statistica (1896) I collect data on the total amount of taxes collected by town governments in 1895. I compute per capita local tax revenues using data on towns' population in 1881, the last Italian census before 1895.

**Population in 1821.** I obtain the population for each town from the Turin sample in Piedmont in 1821 from Regno di Sardegna (1824), and link it to the 2011 shapefile as described in section B.1.

Population in 1843-1844. I compute the population for each town from the Vicenza sample in 1843-44 in the following way: first, I obtain population in 1871 (the first Italian census including the towns of the Veneto region) from Ministero di Agricoltura, Industria e Commercio (1874); second, I obtain distretto-level population in 1843-44 (the oldest census with such level of detail) from Ministero di Agricoltura, Industria e Commercio (1862) and I impute the population of a town in 1843-44 based on 1871 data and on the population growth of its distretto between 1843-44 and 1871. I then link the imputed population to the 2011 shapefile as described in section B.1.

**Population in 1881.** I obtain the population in 1881 for each town in the Turin, Vicenza, Ivrea and Saluzzo samples from Direzione Generale della Statistica (1886a).

**Population in 1901.** I obtain the population in 1901 for each town in the Turin and the Vicenza samples from Santi (1902), and link it to the 2011 shapefile as described in section B.1.

In migration. I measure the share of internal migrants living in the town of birth of a drafted citizen as the share of residents in the town that I observe in the 1917 lists that were born in another town.

Out migration. I measure the share of internal migrants who migrated from the town of birth of a drafted citizen as the share of citizens I observe in the 1917 lists that were born in the town but had their residence in another town in 1917.

**Presence of post office.** I obtain information on the presence of a post office in a town from Santi (1902).

**Presence of train station.** I obtain information on the presence of a train station in a town from Santi (1902).

**Presence of police station.** I obtain information on the presence of a police station (more precisely, a *Carabinieri* station) in a town from Santi (1902).

Walking distance to the closest police station. I compute the walking distance to the closest police station as the inverse hyperbolic sine transformation of the optimal walking route in meters, computed using as impediment both elevation, weather patterns and soil conditions (using data from Özak, 2010). Distances are computed using ArcGIS between the centroid of the town of residence of the drafted citizen and the centroid of the of town hosting the closest police station. I match towns to the closest police station using the centroids of all the police stations in Italy in 1901.

Public spending on primary schools. I obtain data on town-level spending in 1862-1863 from Statistica del Regno d'Italia (1865). I use the total amount of public funds received by primary schools from both central, provincial and town governments; in 1863, schools were almost exclusively funded by towns.

Public spending on kindergartens. I obtain data on town-level public spending on kindergartens in 1869 from Statistica del Regno d'Italia (1870). I use the total amount of public funds received by kindergartens from both central, provincial and town governments. Presence of sewage systems in the town. I use information on the presence of sewage systems in a town from Direzione Generale della Statistica (1886a). I build an indicator variable equal to 1 when the presence of sewage systems is noted as "yes", "generally yes" or if a third or more of the streets are reported to have sewage systems.

Number of public-paid physicians in the town. From Direzione Generale della Statistica (1886a) I obtain information on the number of doctors working in a town paid by the town's government to treat citizens free of charge.

Share of vaccinated children. I obtain information on the number of vaccinated citizens against smallpox in the 1880-1884 period from Direzione Generale della Statistica (1886a). I build the share of vaccinated children in this period using data from Direzione Generale della Statistica (1882) on population and newborns in 1881.

Spending on charity institutions. I obtain data on spending on charity institutions from Regia Segreteria degli Affari Interni (1841). The variable concerns the total revenues of the charity institutions (including hospitals and orphanages) that were funded by the central government in 1840.

**Medals of Honor.** I use data from ISTORECO<sup>65</sup> on the casualties of Italian soldiers during WWI, and whether they obtained a Medal of Honor (gold, silver or bronze ones). For each

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 $<sup>^{65}\</sup>mathrm{Data}$  are accessible at www.cadutigrandeguerra.it.

town in my sample, I compute the share of dead soldiers born in that town who obtained a Medal of Honor from the Italian Army during World War I. Given the low number of medals, I build this variable using men from all the birth cohorts who died during WWI.

Share of citizens named after Kings. I use the first names of drafted citizens in the Turin sample to build the share of male citizens named after a king out of the total number of citizens drafted in the town. I classify a citizen as having a king's name if his first or middle names include "Vittorio", "Emanuele" or "Umberto", that is, the name of the king in 1899 or names of the previous king (Vittorio Emanuele II, first king of Italy).

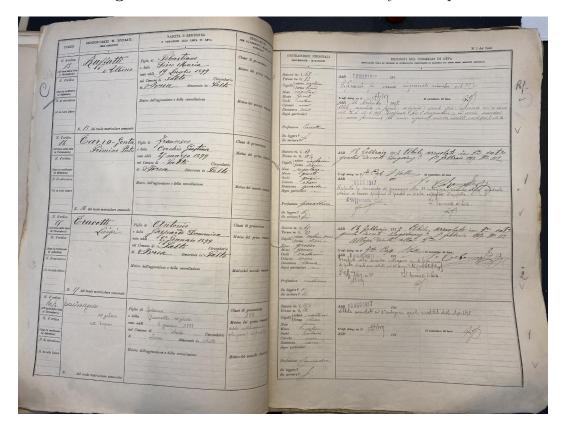


Figure B.1: Draft list of the Italian Army: Example

Notes: This figure presents an example of the original data collected in the Turin State Archive from the draft lists of the Italian Army. This example shows information for four drafted citizens born (and living in 1917) in the town of Salto. The first three columns contain: the name and surname of citizens; their town of birth, dates of birth, and names of their parents; personal information including height and literacy level. The box on the right contains accounts of the enlistment process of citizens.

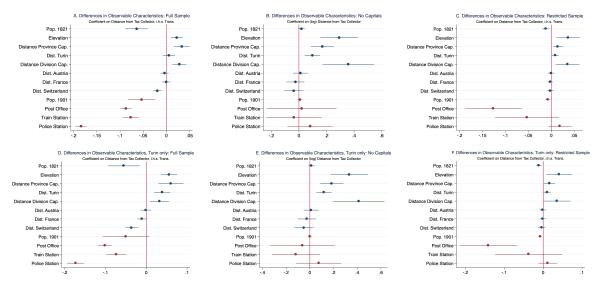
Table B.1: Summary statistics

	R	egression	sample		Full sam	ple
	(1)	(2)	(3)	(4)	(5)	(6)
	Obs.	Mean	Std. Dev.	Obs.	Mean	Std. Dev.
Panel A: town-level variables						
Share of draft evaders	135	0.05	0.08	660	0.04	0.08
Walking dist. from tax collector's residence (km)	135	7.67	4.92	663	4.69	4.41
log Elevation	135	6.28	0.89	663	6.09	0.87
log Area	135	2.71	0.96	663	2.86	0.90
Latitude	135	45.27	0.32	663	45.14	0.38
Longitude	135	7.73	0.32	663	7.80	0.45
Dist. from Division Capital (km)	135	21.11	13.20	663	18.51	11.39
Dist. from Province Capital (km)	135	49.72	28.75	663	46.13	28.14
Dist. from Turin (km)	135	51.41	29.40	663	59.30	36.96
Dist. from Genoa (km)	135	166.17	39.39	663	156.13	44.65
Dist. from Austrian border (km)	135	227.59	23.72	663	228.61	32.67
Dist. from French border (km)	135	49.40	22.59	663	53.48	29.98
Dist. from Swiss border (km)	135	72.38	34.61	663	87.10	40.61
Population 1821	135	1406.34	1219.47	663	2389.42	4821.35
Population 1901	135	1774.22	1169.05	663	3848.82	13984.88
Presence of train station	135	0.20	0.40	663	0.30	0.46
Presence of post office	135	0.56	0.50	663	0.68	0.47
Presence of police station	135	0.14	0.35	663	0.31	0.46
Distance from police station (km)	135	4.92	3.82	663	3.59	3.26
Out migration	135	1.73	2.29	663	2.77	6.82
In migration	135	1.29	2.50	663	1.30	3.88
Observations per town (town-pairs)	135	1.72	1.03	663	4.95	2.35
Average height	135	164.05	3.44	656	163.79	4.17
Share illiterate	135	0.02	0.06	661	0.04	0.11
Share exempted citizens	135	0.08	0.12	661	0.08	0.16
Average share of migrants abroad	135	0.01	0.03	661	0.01	0.03
Panel B: individual-level variables						
Height	1937	163.59	7.25	11539	163.71	7.40
Illiterate	1937	0.04	0.18	11539	0.04	0.20
Exempted	2113	0.09	0.28	13004	0.07	0.26
Migrant abroad	2113	0.01	0.10	13004	0.01	0.10
Panel C: tax district-level variables						
Number of towns	77	5.30	2.46	211	4.87	2.53
Total population (1821)	77	8691.90	4004.89	211	9552.51	7886.61

Notes: The table presents summary statistics for variables used in the main analysis. Variables' construction is described in appendix B.3. Columns (1) to (3) present summary statistics from towns of the Turin regression sample, selected as explained in sections 4.3, and individuals living in these towns. Columns (4) to (6) present summary statistics from all the Piedmontese towns of birth of the drafted citizens in the Turin sample. Panel A presents statistics for town-level outcomes. Panel B presents statistics for individual-level outcomes: note that two variables (height and illiterate status) have missing observations, as they are missing for most draft evaders; for this reason, as explained in appendix B.3, in the analysis I use the town-level average of these variables based on non-missing observations. Panel C reports statistics on the average number of towns in a tax district and its total population.

## C Balancedness of observable characteristics

Figure C.1: Balancedness of observable characteristics in the OLS analysis



Notes: The panels of this figure show  $\beta$  coefficients and 95% confidence intervals of separate OLS regressions based under different sample selections. In each panel, units of observation are towns; the explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period. Panel A includes all the town of Piedmont where, in 1899, was born at least one man appearing in the Turin sample (i.e. living in the province of Turin in 1917); Panel B excludes former tax districts capitals from the previous sample; Panel C follows the criteria explained in section 4.3 and excludes all the towns for which the tax district capital hosted a division capital or the closest police station. Panel D, E and F implement the same sample restrictions of A, B and C but keep in the sample only towns of the province of Turin. Dependent variables of the first set of regressions of each panel (in blue) are geographical or pre-determined characteristics, namely: population of the town in 1821; logarithm of elevation of the town; distance from province capital, distance from division capital (Circondario), distance from Turin; distances from the Italian borders with Austria, France and Switzerland. Dependent variables of the second set of regressions (in red) are other town-level characteristics, namely: population in 1901 and indicator variables for the presence in the town of a post office, a train station, or a police station.

**Table C.1:** Balance of observables, geographic and pre-detetermined characteristics

	Pop. 1821	Elevation	Distance Province Cap.	Dist. Turin	Distance Division Cap.	Dist. Austria	Dist. France	Dist. Switzerland
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	0.005	0.004	0.000	0.010	o oport	0.000	0.000	0.010
(log) Walking Dist. from Tax Collector	0.065	0.024	0.030	0.018	0.372**	0.023	-0.033	-0.018
	(0.154)	(0.063)	(0.059)	(0.053)	(0.181)	(0.052)	(0.057)	(0.018)
DV Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Town-pair FE	yes	yes	yes	yes	yes	yes	yes	yes
Province FE	yes	yes	yes	yes	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes	yes	yes	yes	yes
Towns in sample	135	135	135	135	135	135	135	135
Observations	232	232	232	232	232	232	232	232
R-squared	0.548	0.953	0.973	0.978	0.854	0.991	0.989	0.996

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical and pre-determined characteristics are: population of the town in 1821, the logarithm of elevation of the town; distance from province capital, distance from division capital (Circondario), distance from Turin; distances from the Italian borders with Austria, France and Switzerland. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\*\* p<0.05, \* p<0.1.

**Table C.2:** Balance of observables, town-level characteristics

	Pop. 1901 Out Migration In Migration Pos		Post Office	Train Station	Police Station	
	(1)	(2)	(3)	(4)	(5)	(6)
(log) Walking Dist. from Tax Collector	0.083	-0.196	0.173	0.059	0.219	0.047
	(0.146)	(0.124)	(0.113)	(0.116)	(0.216)	(0.178)
DV Mean	0.00	0.00	0.00	0.00	0.00	0.00
Town-pair FE	yes	yes	yes	yes	yes	yes
Province FE	yes	yes	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes	yes	yes
Towns in sample	135	135	135	135	135	135
Observations	232	232	232	232	232	232
R-squared	0.676	0.804	0.677	0.586	0.601	0.507

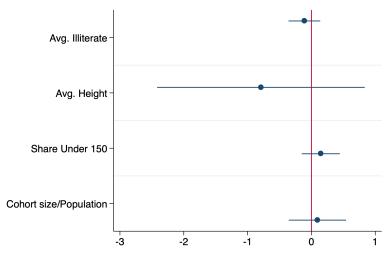
Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Town-level characteristics are: population in 1901; share of internal immigrants living in the town; share of citizens born in the town living elsewhere; indicator variables for the presence in the town of a post office, a train station, or a police station. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\*\* p<0.05, \* p<0.1.

**Table C.3:** Balance of observables, military and means of individual-level characteristics

	Avg. Illiterate	Avg. Height	Cohort Size/ Population	Share Under 150
	(1)	(2)	(3)	(4)
(log) Walking Dist. from Tax Collector	-0.110 (0.124)	-0.241 (0.248)	0.094 (0.225)	0.147 (0.150)
DV Mean	0.00	0.00	0.00	0.00
Town-pair FE	yes	yes	yes	yes
Province FE	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes
Towns in Sample	135	135	135	135
Observations	232	232	232	232
R-squared	0.565	0.571	0.771	0.535

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in section 4.2. The explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Mean of individual characteristics are share of illiterate citizens born in the town and average height for citizens born in the town. The dependent variable in column (3) is the ratio between the number of citizens born in the town that appear in the 1917 lists and the population of the town in 1901; the dependent variable in column (4) is the share of citizens born in a town less than 150cm tall (the threshold for exemption for medical reasons). Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Figure C.2: Balancedness of observable characteristics, town-level averages of individual characteristics



Notes: This figure shows  $\beta$  coefficients and 95% confidence intervals of separate regressions based on Equation 4.1, which controls for town-pairs and province fixed effects. Units of observation are towns  $\times$  town-pair. The sample includes all the towns in Piedmont selected as explained in sections 4.2 and 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period. Dependent variables are: share of illiterate citizens born in the town; average height for citizens born in the town; ratio between the number of citizens born in the town that appear in the 1917 lists and the population of the town in 1901; share of citizens born in a town less than 150cm tall (the threshold for exemption for medical reasons).

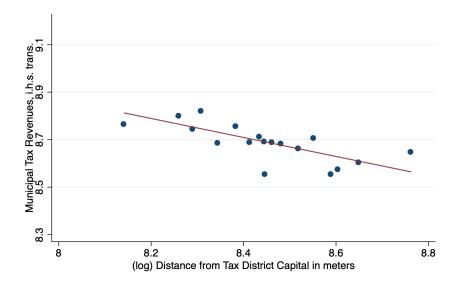
## D Town-level taxation before 1870, Ivrea and Saluzzo

**Table D.1:** Distance from tax collector's residences and local tax revenues, 1831/1846

	Full S	Sample	Restricte	ed Sample
	Municipal Tax Rev.	Municipal Tax Rev.	Municipal Tax Rev	Municipal Tax Rev
	i.h.s. trans.	i.h.s. trans.	i.h.s. trans.	i.h.s. trans.
	(1)	(2)	(3)	(4)
(log) Walking Dist. from Tax Collector	-0.687***	-0.433**	0.047	-1.390**
	(0.235)	(0.166)	(0.074)	(0.490)
$p ext{-}value$	[0.007]	[0.015]	[0.531]	[0.013]
$Wild\ Cluster\ Bootstrap-t\ p\hbox{-}value$	[0.002]	[0.029]	[0.556]	[0.025]
DV Mean	8.848	8.848	9.169	9.169
Town-pair FE	yes	yes	yes	yes
Province FE	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes
Geographical controls	no	yes	no	yes
Population	no	yes	no	yes
Towns in Sample	120	120	36	36
Observations	412	412	74	74
R-squared	0.703	0.807	0.747	0.973

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. In every column the dependent variable is the inverse hyperbolic sine transformation of total taxes raised in the town by the tax collector on behalf of the town government, in 1846 (in Ivrea) or in 1831-34 (Saluzzo). In columns (1) and (2), the sample includes all the towns in Piedmont not hosting a former tax collector's residence for which data on local taxes before 1870 are available; in columns (3) and (4), the sample includes all the towns selected as explained in section 4.3 for which data on local taxes before 1870 are available. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls and pre-determined controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Standard errors in round parentheses are clustered at the tax district and district-border level. Square brackets indicate p-values from baseline specification and from wild cluster bootstrap (clustering in both cases at the tax district and district-border level). \*\* p<0.01, \*\* p<0.05, \* p<0.1.

Figure D.1: Distance from tax collector and municipal tax revenues per capita, Ivrea-Saluzzo sample



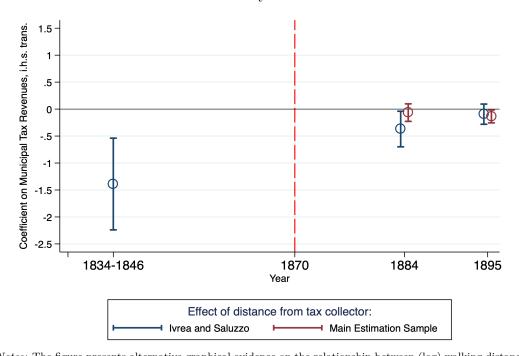
Notes: This figure presents graphical evidence on the relationship between the (log) walking distance of a town from a former tax collector's residence in the 1814-1870 period (computed as explained in 3.1) and the amount of taxes per capita raised on behalf of the town government before 1870, transformed using the inverse hyperbolic sine function. Tax data are from 1846 and 1831-1834, and pertain to towns of the divisions of Ivrea (1846) and Saluzzo(1831-34), selected as explained in section 4.3. The binscatter shows the association between the two variables after controlling for town-pair fixed effects, province fixed effects, and geographical and pre-determined characteristics (see B.3 for their descriptions).

**Table D.2:** Distance from tax collector's residences and per capita local tax revenues, 1831/1846

	Full S	Sample	Restricte	ed Sample
	Municipal Tax Rev. per Capita			
	i.h.s. trans.	i.h.s. trans.	i.h.s. trans.	i.h.s. trans.
	(1)	(2)	(3)	(4)
(log) Walking Dist. from Tax Collector	-0.348*	-0.426**	0.049	-0.400
-	(0.203)	(0.164)	(0.127)	(0.330)
p-value	[0.097]	[0.015]	[0.705]	[0.244]
$Wild\ Cluster\ Bootstrap\text{-}t\ p\text{-}value$	[0.091]	[0.033]	[0.773]	[0.441]
DV Mean	8.622	8.622	9.195	9.195
Town-pair FE	yes	yes	yes	yes
Province FE	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes
Geographical controls	no	yes	no	yes
Towns in Sample	120	120	36	36
Observations	412	412	74	74
R-squared	0.744	0.789	0.739	0.969

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns × town-pair. In every column the dependent variable is the inverse hyperbolic sine transformation of taxes per capita raised in the town by the tax collector on behalf of the town government, in 1846 (in Ivrea) or in 1831-34 (Saluzzo). In columns (1) and (2), the sample includes all the towns in Piedmont not hosting a former tax collector's residence for which data on local taxes before 1870 are available; in columns (3) and (4), the sample includes all the towns selected as explained in section 4.3 for which data on local taxes before 1870 are available. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls and pre-determined controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, population in 1821, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa. Standard errors in parentheses are clustered at the tax district and district-border level. Square brackets indicate p-values from baseline specification and wild cluster bootstrap (clustering in both cases at the tax district and district-border level). \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Figure D.2:** Distance from tax collector and Tax Revenues, before and after the removal of tax districts - years fixed effects



Notes: The figure presents alternative graphical evidence on the relationship between (log) walking distance of a town from a former tax collector's residence in 1814-1870 and the amount of taxes raised by town governments both before and after the removal of tax districts in 1870. The outcome variable amount of taxes raised by town governments before 1870, transformed using the inverse hyperbolic sine function. Plotted coefficients and 95% confidence intervals are estimated using equation 7.1, but controlling for year fixed effects, geographical and pre-determined characteristics (see Table 3 for their description), town-pairs and province fixed effects, and their interaction with year fixed effects. The coefficients plotted in blue are estimated using data from towns of the divisions of Ivrea and Saluzzo for which tax data before 1870 are available, while coefficients plotted in red are estimated using data from all the towns of the Turin sample; for both samples towns are selected as explained in sections 4.2 and 4.3.

**Table D.3:** Distance from tax collector and tax revenue in 1831/1846, 1884 and 1895

	Ivrea and Sa	luzzo Sample	Main Estima	ation Sample
	Municipal Tax Rev i.h.s. trans. (1)	Municipal Tax Rev i.h.s. trans. (2)	Municipal Tax Rev i.h.s. trans. (3)	Municipal Tax Rev i.h.s. trans. (4)
(log) Walking Distance from Tax Collector $\times$ 1846	-1.390***	-1.390**		
(log) Walking Distance from Tax Collector $\times$ 1884	(0.459) -0.253	(0.489) -0.369*	-0.073	-0.065
(log) Walking Distance from Tax Conector × 1804	(0.147)	(0.190)	(0.069)	(0.080)
(log) Walking Distance from Tax Collector $\times$ 1895	-0.394**	-0.094	-0.129**	-0.135**
	(0.182)	(0.108)	(0.059)	(0.059)
DV Mean	11.86	11.86	12.21	12.21
Town-pair FE	yes	yes	yes	yes
Province FE	yes	yes	yes	yes
No district capitals	yes	yes	yes	yes
Pre/Post FE	yes	no	yes	no
Year FE	no	yes	no	yes
Geographical controls	yes	ys	yes	yes
Years in sample	3	3	2	2
Towns in sample	36	36	135	135
Observations	222	222	464	464
R-squared	0.959	0.983	0.888	0.918

Notes: The table reports coefficients  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  from Equation 7.1. Units of observation are towns × town-pair × tax year. Every specification includes geographical controls, town-pair and province fixed effects. Columns (1) and (3) include tax year fixed effects and the interaction of a post-reform indicator variable (for the two years after the removal of tax districts in 1870) with every control variable; columns (2) and (4) include tax year fixed effects and their interactions with the every control variable. In columns (1) and (2) the sample includes all the towns selected as explained in section 4.3 for which data on local taxes before 1870 are available; in columns (3) and (4) the sample includes all the towns in Piedmont selected as explained in section 4.3. In every column the dependent variable is the inverse hyperbolic sine transformation of total taxes raised by of the town government in a year.  $\beta_1$  estimates the effect of distance from a tax district capital in the 1814-1870 period on average yearly taxes collected in the town between 1831 and 1834 (for towns in Saluzzo) or the 1846 tax year (for towns in Ivrea);  $\beta_2$  and  $\beta_3$  estimate the same effect for the 1884 and the 1895 tax years. Geographical controls and pre-determined controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, population in 1821, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## E Additional results on Vicenza sample

**Table E.1:** Distance from judicial district capitals and likelihood to evade the draft

	Share Draft Evaders					
	(1)	(2)	(3)			
(log) Walking Dist. from District Capital	-0.000	0.016	0.007			
	(0.031)	(0.021)	(0.019)			
$p ext{-}value$	[0.994]	[0.475]	[0.735]			
$Wild\ Cluster\ Bootstrapt\ pvalue$	[0.993]	[0.597]	[0.789]			
DV Mean	0.0551	0.0551	0.0551			
Town-pair FE	yes	yes	yes			
Province FE	yes	yes	yes			
No district capitals	yes	yes	yes			
Geographical controls	no	yes	yes			
Mean individual controls	no	no	yes			
Town-level controls	no	no	yes			
Observations	3,500	3,500	3,500			
Individuals in Sample	1799	1799	1799			
Towns in Sample	55	55	55			
R-squared	0.031	0.038	0.040			

Notes: The table reports  $\beta$  coefficients from Equation 4.2, which controls for town-pair and province fixed effects. Units of observation are individuals × town-pair. In every column the dependent variable is a binary variable indicating whether the individual evaded the draft, or not. The sample includes all the individuals born in towns out of Piedmont selected as explained in section 4.3 and 6.3. The main explanatory variable is the logarithm of the walking distance between a town and the location of a minor court that had jurisdiction on the town (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Distretto), distance from Turin, distance from Genoa, imputed population in 1843-44. Mean of individual controls are town-level means of individual characteristics as measured by military data, namely being resident abroad and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from the closest police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. Square brackets indicate p-values from baseline specification and from wild cluster bootstrap (clustering in both cases at the tax district and district-border level). \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table E.2: Summary statistics: Vicenza sample

	Regression sample				Full sample			
	(1)	(2)	(3)	(4)	(5)	(6)		
	Obs.	Mean	Std. Dev.	Obs.	Mean	Std. Dev.		
Share of draft evaders	55	0.04	0.05	201	0.03	0.08		
Walking dist. from tax collector's residence (km) $$	55	9.53	3.39	199	8.66	20.76		
log Elevation	55	5.00	1.42	201	4.47	1.58		
log Area	55	2.95	0.58	201	3.14	0.75		
Latitude	55	45.59	0.18	201	45.54	0.31		
Longitude	55	11.48	0.20	201	11.59	0.29		
Dist. from Division Capital (km)	55	23.45	12.36	194	18.70	12.85		
Dist. from Province Capital (km)	55	32.55	12.65	194	28.05	16.59		
Dist. from Turin (km)	55	391.97	51.04	197	398.24	53.46		
Dist. from Austrian Border (km)	55	27.69	15.43	201	38.92	28.17		
Dist. from French Border (km)	55	334.27	16.24	201	340.94	23.92		
Dist. from Swiss Border (km)	55	126.48	15.34	201	137.99	26.99		
Population 1901	55	3428.20	1373.16	201	6447.45	14596.51		
Presence of train station	55	0.15	0.36	201	0.23	0.42		
Presence of post office	55	0.82	0.39	201	0.74	0.44		
Presence of police station	55	0.29	0.46	201	0.32	0.47		
Distance from police station (km)	55	3.77	2.76	199	3.72	2.89		
Out migration	55	4.20	3.22	201	5.53	6.26		
In migration	55	3.29	4.23	201	5.52	15.58		
Observations per town (town-pairs)	55	1.82	1.04	201	4.63	2.32		
Share exempted citizens	55	0.07	0.14	201	0.06	0.12		
Average share of migrants abroad	55	0.01	0.02	201	0.01	0.02		

Notes: The table presents summary statistics for town-level variables used in the placebo analysis. Variables' construction is described in appendix B.3. Columns (1) to (3) present summary statistics from towns of the Vicenza regression sample, selected as explained in sections 4.3 and 6.3, and individuals living in these towns. Columns (4) to (6) present summary statistics from all the non-Piedmontese towns of birth of the drafted citizens in the Vicenza sample.

## F Robustness checks

## F.1 Alternative empirical strategy

**Table F.1:** Distance from former tax district capitals and share of draft evaders: Border fixed-effects design

	Share Draft Evaders					
	(1)	(2)	(3)			
(log) Walking Dist. from Former Tax Collector	0.006	0.021**	0.025*			
(10g) Haming Distriction 1 strate concession	(0.009)	(0.010)	(0.013)			
DV Mean	0.0453	0.0453	0.0457			
Border FE	yes	yes	yes			
Province FE	yes	yes	yes			
No district capitals	yes	yes	yes			
Geographical controls	no	yes	yes			
Mean individual controls	no	no	yes			
Town-level Controls	no	no	yes			
Towns in Sample	155	155	153			
Observations	234	234	232			
R-squared	0.442	0.518	0.595			

Notes: The table reports  $\beta$  coefficients from Equation 6.1, which controls for district-border and province fixed effects. Units of observation are towns  $\times$  town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. The sample includes all the towns in Piedmont which shared an administrative boundary with a district-border, which respect the sample selection explained in section 4.3 and located on a district-border with at least one town on each side of it. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Mean of individual controls are town-level means of individual characteristics as measured by military data, including height, literacy, being resident abroad, and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from the closest police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## F.2 Alternative measures of distances from tax collectors' residences

**Table F.2:** Distance from former tax district capitals and share of draft evaders: Alternative measures of distance

	Share Draft Evaders						
	(1)	(2)	(3)	(4)	(5)	(6)	
(log) Euclidean Dist. from Former Tax Collector	0.015**	0.030**					
(108) Euclidean Bibl. from Former Tax Concettor	(0.007)	(0.013)					
(log) Cost Distance from Tax Collector	()	()	0.014**	0.027**			
			(0.006)	(0.013)			
Treatment (Farther from Tax Collector)					0.015	0.016	
					(0.010)	(0.013)	
DV Mean	0.0472	0.0472	0.0472	0.0472	0.0472	0.0472	
Town-pair FE	yes	yes	yes	yes	yes	yes	
Province FE	yes	yes	yes	yes	yes	yes	
No district capitals	yes	yes	yes	yes	yes	yes	
Geographical controls	no	yes	no	yes	no	yes	
Towns in Sample	135	135	135	135	135	135	
Observations	232	232	232	232	232	232	
R-squared	0.587	0.681	0.586	0.679	0.591	0.677	

Notes: The table reports coefficients  $\beta$  from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns  $\times$  town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. The sample includes all the towns in Piedmont selected as explained in section 4.3. In columns (1) and (2) the main explanatory variable is the logarithm of the euclidean distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital); in columns (3) and (4) the main explanatory variable s the logarithm of the cost distance (in days) between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed using the Human Mobility Index by Özak (2010); in columns (5) and (6) the main explanatory variable is a binary variable indicating whether the town, within the couple, is farther from the residence of its tax collector's residence, according to the walking distance computed as described in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\*\* p<0.05, \* p<0.1.

## F.3 Alternative sample restrictions

**Table F.3:** Distance from former tax district capitals and share of draft evaders, Alternative estimation samples

	Only closest matched town		Excluding province capital's district		Division fixed effects		Including tax-district capitals		Only Province of Turin	
	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders	Share Draft Evaders
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(log) Walking Dist. from Former Tax Collector	0.020*	0.026	0.011*	0.025**	0.016**	0.036**			0.015**	0.034**
	(0.011)	(0.017)	(0.007)	(0.010)	(0.006)	(0.015)			(0.006)	(0.014)
Walking Dist. from Tax Collector, i.h.s. trans.							0.001	0.003		
							(0.002)	(0.002)		
DV Mean	0.0453	0.0453	0.0426	0.0426	0.0485	0.0485	0.0471	0.0471	0.0538	0.0538
Town-pair FE	yes	yes	yes	yes	yes	yes	yes	yes		
Province FE	yes	yes	yes	yes	no	no	yes	yes	yes	yes
Division FE	no	no	no	no	yes	yes	no	no	no	no
No district capitals	yes	yes	yes	yes	yes	yes	no	no	yes	yes
Geographical controls	no	yes	no	yes	no	yes	no	yes	no	yes
Towns in Sample	135	135	161	161	130	130	144	144	99	99
Observations	180	180	286	286	226	226	270	270	188	188
R-squared	0.564	0.670	0.591	0.684	0.586	0.682	0.570	0.666	0.592	0.747

Notes: The table reports coefficients  $\beta$  from Equation 4.1, controlling for town-pair fixed effects. Units of observation are towns × town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. In columns (1) and (2) the sample includes the towns in Piedmont selected as explained in section 4.3; however, instead of using all the pairs of neighbouring towns on tax district borders, for each town I keep only the pair with the geographically closest matched town. In columns (3) and (4) I exclude towns of the province capital tax district, instead of towns of the division capital tax district. In columns (5) and (6) I control for division fixed effects instead of province fixed effects. In columns (7) and (8) I keep in the estimation sample also tax district capitals that respect the sample selection's criteria of 4.3. In columns (9) and (10) I restrict my analysis only to towns in the province of Turin. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Standard errors in parentheses are clustered at the tax district and district-border level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## F.4 Alternative clustering

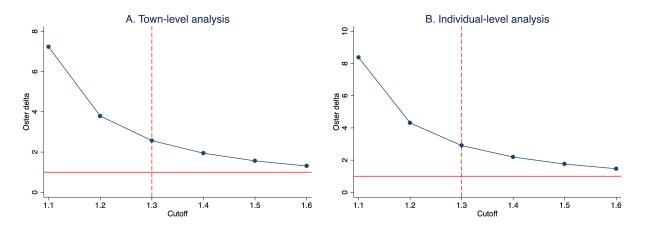
**Table F.4:** Distance from former tax district capitals and share of draft evaders: Spatial HAC standard errors

	Share Draft Evaders					
-	(1)	(2)	(3)			
(log) Walking Dist. from Tax Collector	0.015***	0.030***	0.036***			
$[5 \ km]$	(0.006)	(0.007)	(0.005)			
$[10 \ km]$	(0.006)	(0.005)	(0.004)			
$[20 \ km]$	(0.006)	(0.003)	(0.002)			
$[50 \ km]$	(0.007)	(0.002)	(0.002)			
$[100 \; km]$	(0.005)	(0.001)	(0.001)			
DV Mean	0.0472	0.0472	0.0472			
Town-pair FE	yes	yes	yes			
Province FE	yes	yes	yes			
No district capitals	yes	yes	yes			
Geographical controls	no	yes	yes			
Mean individual controls	no	no	yes			
Town-level controls	no	no	yes			
Towns in sample	135	135	135			
Observations	232	232	232			
R-squared	0.587	0.681	0.776			

Notes: The table reports  $\beta$  coefficients from Equation 4.1, which controls for town-pair and province fixed effects. Units of observation are towns × town-pair. In every column the dependent variable is the share of draft evaders born in a town in 1899 out of all the men born in 1899 in the town. The sample includes all the towns in Piedmont selected as explained in section 4.3. The main explanatory variable is the logarithm of the walking distance between a town and the residence of its tax collector in the 1814-1870 period (or district capital), computed as explained in section 3.1. Geographical controls include the logarithm of elevation of the town, standard deviation of elevation in the town, area of the town, measures of land suitability for several crops (as explained in Appendix B.3), latitude, longitude, distances from country borders, distance from province capital, distance from division capital (Circondario), distance from Turin, distance from Genoa, population in 1821. Mean of individual controls are town-level means of individual characteristics as measured by military data, including height, literacy, being resident abroad, and having had an exemption for medical reasons. Town-level controls include population in 1901, distance from the closest police station, and indicator variables for the presence in the town of a post office, a police station, or a train station. Conley's spatially-corrected standard errors in parentheses. Following the methodology introduced by Colella et al. (2019), I allow errors to be correlated within a circle of radius of 5, 10, 20, 50 or 100 kilometers around each town. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

## F.5 Role of unobservables: Oster test

Figure F.1: Oster's  $\delta$  under alternative assumptions about  $R_{max}^2$  cutoff



Notes: This figure presents the value of Oster's  $\delta$  for several values of  $R^2_{max}$ , where  $R^2_{max}$  ranges between  $1.1\bar{R}^2$  and  $1.6\bar{R}^2$  according to the different cutoffs.  $\bar{R}^2$  is the R-squared from the baseline regression, controlling for province and town-pairs fixed effects only. The  $\delta$  statistic how much more important unobservables need to be compared to observables to have omitted variable bias fully explaining the results. The dashed vertical line denotes 1.3, the cutoff suggested by Oster (2019). The solid horizontal line denotes  $\delta=1$ , which indicates equal selection on observables and unobservables.