

# The Medieval Roots of Inclusive Institutions: From the Norman Conquest of England to the Great Reform Act\*

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## Abstract

We study the process that led to the inclusion of merchant towns in the English Parliament, using a novel comprehensive dataset for 549 medieval English towns (boroughs). Our analysis begins with the Norman Conquest in 1066 – an event of enormous political change that resulted in largely homogenous formal institutions across England. From this starting point, we document a two-step process: First, monitoring issues and asymmetric information led to inefficiencies in the king’s tax collection, especially with the onset of the Commercial Revolution in the 12th century. This gave rise to mutually beneficial agreements (Farm Grants), whereby medieval merchant towns obtained the right of self-administered tax collection and law enforcement. Second, we show that Farm Grants were stepping stones towards representation in the English Parliament after its creation in 1295: to raise extra-ordinary taxes (e.g., for wars) from self-governed towns, the king had to negotiate with them – and the efficient institution to do so was Parliament. We show that royal boroughs with trade-favoring geography were much more likely to be represented in Parliament, and that this relationship worked through Farm Grants. We also show that medieval self-governance had important long-term consequences and interacted with nationwide institutional changes. Boroughs with medieval Farm Grants had persistently more inclusive local elections of public officials and MPs, they raised troops to back the parliamentarians during the Civil War in 1642, and they supported the Great Reform Act of 1832, which resulted in the extension of the franchise.

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# 1 Introduction

Inclusive political institutions and the protection of property rights are important drivers of economic growth and development (c.f. North and Thomas, 1973; North, Wallis, and Weingast, 2009; Acemoglu and Robinson, 2012). Recent work has also shown that “initial” institutions played a crucial role during historical critical junctures, determining subsequent economic progress. For example, Acemoglu, Johnson, and Robinson (2005) find that countries with more inclusive political institutions benefitted the most from the rise of Atlantic trade in the 16th to 18th century.<sup>1</sup> Conversely, trade also affected institutional change: Acemoglu et al. (2005) show that Atlantic trade strengthened merchant groups, helping them to obtain improved protection of property rights – but only in countries where “initial” political institutions allowed merchants to influence the political decision making process.<sup>2</sup> The most important institution that exerted constraints on monarchs in medieval and early modern times was parliament – an institution that was typically dominated by the nobility and the high clergy. For merchants to shape institutional change, representation in parliament was crucial. This bears the question: Which process led to the inclusion of merchants and burgesses in parliaments?

In this paper, we study the historical evolution of inclusive institutions in the prominent context of England – “the mother of parliaments,”<sup>3</sup> with a broad representation of merchant towns already in the 14th century. Our analysis begins with the Norman Conquest of England in 1066 – long before the creation of England’s first parliament. The Norman Conquest – “the single greatest political change England has ever seen”<sup>4</sup> – represents a key turning point in English history. The Normans asserted strong control over the territory, implemented a feudal society, and replaced the Anglo-Saxon ruling elite with their own. This resulted in largely homogeneous formal institutions across England and thus provides an ideal starting point for our analysis. In addition, the period after the Conquest coincides with the Commercial Revolution that saw a surge in economic activity not only in England but in Western Europe more generally (Lopez, 1976). We argue that conflicts over taxation between merchant towns and the king during this period contributed importantly to the evolution of inclusive institutions at the town level, and that these, in turn, interacted with

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<sup>1</sup>Similarly, Pascali (2017) shows that the introduction of the steamship in the 19th century had a positive effect on economic development only in countries with strong constraints on executive power.

<sup>2</sup>These “initial” institutions have been taken as given by the literature. Contributions in political economy that explain the emergence of inclusive institutions study changes after the 18th century (Acemoglu and Robinson, 2000; Lizzeri and Persico, 2004). Some historical studies have documented a close relationship between trade and institutions in the medieval Mediterranean (Greif, 1993; Puga and Trefler, 2014). While the institutions studied in these papers supported medieval trade, they eventually lost importance.

<sup>3</sup>Original quote attributed to British politician John Bright in 1865 (Oxford Dictionary of Quotations, revised 4th edition, 1996, p. 141).

<sup>4</sup>The Economist, December 24th, 2016, p. 33.

nationwide institutional change.

Our argument is based on both the historical record and on detailed newly assembled data regarding political liberties of medieval English boroughs (towns). We build a novel dataset for all 549 boroughs that existed before 1348 (using the time of the Black Death as a natural breakpoint). For each borough, we code the Charters of Liberties it received, as well as information on its parliamentary franchise. We add borough-level data on taxable wealth assessed by the Normans in 1086, geographic characteristics, and commercial importance. In addition, we code various indicators for local institutions, tracked over eight centuries. Finally, we add information on how boroughs shaped nationwide institutional change – by supporting the Parliamentarians during the Civil War in 1642, and by voting in favor of the Great Reform Act of 1832. Our analysis is organized into two main parts. We first examine the process that led to self-governance of merchant towns, and then to their representation in the English Parliament by 1348. Second, we document the long-run relationship between medieval self-governance and inclusive institutions until the 19th century.

In the pre-1348 part, we emphasize two steps. The first step explains how merchant towns obtained the right of self-administered tax collection. After the Norman Conquest, the kings ruling England relied on tax farming to collect revenues from boroughs: Each borough had to pay an annual fixed amount that was based on the taxation of property, courts, and trade. For each shire (county), the king appointed a sheriff (“shire reeve”) to run tax collection and provide law enforcement. Sheriffs, in turn, appointed local officials in their boroughs. Often, the highest bidder for a shire’s total tax collection was appointed sheriff, and was then entitled to keep revenues collected in excess of the annual lump sum. This, together with the short tenure of sheriffs, led to widespread opportunistic and distortionary behavior, as illustrated by countless complaints of burgesses and numerous resulting royal enquiries (e.g., the “Inquest of the Sheriffs” in 1170). Such complaints were particularly frequent when the king was away on wars, so that his officials governed largely unchecked.<sup>5</sup>

Merchant towns and the king found a mutually beneficial solution to the inefficiencies associated with tax farming: Beginning in the 12th century, the king granted *Charters of Liberties* to some boroughs; most prominent were *Farm Grants*, giving local burgesses the authority to appoint their borough’s tax collectors, judges, and market officials.<sup>6</sup> In exchange for these liberties,

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<sup>5</sup>See for example the “Enquiry into offences by royal officials during the king’s absence 1286-9” reported in Douglas and Rothwell (1996).

<sup>6</sup>By a slight abuse of terminology, throughout the text, we also use *chartered boroughs* to refer to towns with Farm Grants. Farm Grants were only introduced after the Norman Conquest; they did not exist during Anglo-Saxon times, as documented by Maitland (1921, p. 204), Tait (1936, p. 71), Barlow (1961, p. 25), and Reynolds (1977, pp. 95-6). Also, not all Charters of Liberties granted boroughs the right to self-administer tax collection. Other charters, for

boroughs typically agreed to pay a higher annual lump sum to the king – that is, boroughs were willing to pay for the right to run tax collection themselves, cutting out the king’s officials. Farm Grants represented efficiency improvements, resolving monitoring issues of extortive officials and asymmetric information about local movable wealth. In other words, self-governance of boroughs did not only reduce extortions, but also distortions, by enabling more effective local law enforcement for commercial purposes. Bristol’s petition to the King in 1283 illustrates that merchants were well-aware of these benefits:

“Since none can know so well as those whose work is concerned with merchandise, and who earn their living by it, how to regulate the affairs of merchants properly and honestly, the Commonalty of Bristol entreats the Lord King that, if he should wish to grant his town at farm to anyone, he should concede it to them, since they would be prepared to give as much for it as any outsider. For an outside farmer would not seek it except for his own personal gain, which would be to the serious loss of the Commonalty. And the Commonalty seeks it to farm, not for the sake of profit, but to safeguard, according to the law merchant, both themselves and others coming there.” (Cronne, 1946, pp. 42-3).

By the time of the Black Death in 1348, 87 boroughs (out of 549 that existed at the time) had obtained Farm Grants. We show that Farm Grants were particularly likely to be granted to royal boroughs with geographic characteristics conducive to trade (proximity to navigable rivers, the sea coast, or Roman roads). We also use other proxies to show that these chartered boroughs were commercially more important in medieval times. This supports our argument that Farm Grants were particularly valuable to commercial towns, where the inefficient and extortive royal administration created the most severe distortions.

The second step of our argument connects Farm Grants to representation in Parliament. The ‘Model’ Parliament in England assembled in 1295 and met on a regular basis thereafter. A central purpose of Parliament was to discuss extra-ordinary taxation, often on movable wealth.<sup>7</sup> The need to negotiate extra-ordinary taxation was particularly pronounced for boroughs that had obtained the right to self-administer their tax collection. There, the king lacked both the information about local movable wealth and the administrative means to unilaterally impose higher taxes. In other words, Farm Grants increased the bargaining power of boroughs and thus the likelihood of being enfranchised (see González de Lara, Greif, and Jha, 2008, for a similar reasoning). Conversely, since extra-ordinary taxation was mostly levied on movables and trade, the merchant classes in bor-

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instance, granted the right to hold a market, to prevent the entry of royal officials, or they provided freedom from tolls throughout the realm. We predominantly use Farm Grants, but also explore other charters in our empirical analysis.

<sup>7</sup>Parliament was an efficient way to hold negotiations with many stakeholders. See for example Bates and Lien (1985, p. 56) who observe that “bargaining for taxes was costly to monarchs. Monarchs therefore appear to have desired to bargain with fewer agents – ones representative of the set of all agents.” Negotiating taxes in Parliament also helped to legitimize them and thus avoided protests (Strayer, 1947).

oughs with Farm Grants had a natural interest in being enfranchised (North and Thomas, 1973).<sup>8</sup> We find strong empirical support for a close relationship between Farm Grants and representation in Parliament. Out of the 87 boroughs with Farm Grants, 62 (71.3%) were enfranchised by 1348; as compared to 67 out of all other 462 boroughs (14.5%). This stark difference proves highly robust in our regression analysis, and it also holds when we use trade geography to predict Farm Grants in a 2SLS setup.

In the second part of our analysis, we provide results that illustrate how Farm Grants affected the evolution of inclusive institutions over centuries after they were granted. We first show that medieval Farm Grants favored the development of inclusive *local* political institutions. Boroughs that had obtained Farm Grants before 1348 were still more independent from the king centuries later in electing their local governing body. They also ran persistently more inclusive MP elections between the late 17th and early 19th century. By contrast, parliamentary boroughs that had not experienced early self-governance were more likely to have patrons nominate their MPs, and to become “rotten” (small and decadent) by 1832.<sup>9</sup>

Finally, we examine the link between medieval Farm Grants and *nationwide* institutions. We show that boroughs with early self-governance were significantly more likely to raise volunteer troops to fight on the side of the parliamentarians at the outbreak of the Civil war in 1642, which resulted in greater parliamentary control over the crown. In addition, we find that Farm Grants are a strong predictor of a borough’s MPs voting in favor of the Great Reform Act of 1832. The Great Reform Act was a crucial step in the democratization of England (Aidt and Franck, 2015). It reallocated MP seats from rotten boroughs to the newly industrialized urban centres (e.g., Manchester), thereby shifting the balance of power towards the interests of the merchant class (as opposed to the landed interests of “rotten” boroughs and the aristocracy). The Reform Act also extended the franchise from 3% to 6-7% of the population and triggered a series of further extensions of the franchise and improvements in local governance (e.g., the Municipal Reform Act of 1835). This helped to end pork-barrel politics and thus benefitted the merchant class of chartered boroughs (Lizzeri and Persico, 2004).

The diagram below summarizes the steps of our argument. After the Norman Conquest, conflicts over expropriations by tax officials gave rise to Farm Grants – mutually beneficial agreements that allowed towns to self-administer tax collection. Farm Grants, in turn, made representation in

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<sup>8</sup>This point is related to theories that link taxation of movable wealth (which could be avoided more easily than taxes on land) to institutional changes. For example, Bates and Lien (1985, p. 53) argue that “Revenue-seeking governments may well find it to their advantage to strike bargains with citizens whose assets they seek to tax. [...] Such bargains may become more beneficial...the more mobile the assets the citizens hold.”

<sup>9</sup>As we discuss in the historical background, these boroughs were often enfranchised for strategic reasons by the king, to curb the merchants’ power in Parliament (Porritt, 1909).

Parliament more likely, and they also fostered local inclusive institutions (since local officials were elected by a borough’s burgesses). Finally, medieval local self-governance also predicts the behavior of boroughs during nation-wide institutional changes (the Civil War and the Great Reform Act). Since initial formal institutions were relatively homogenous after the Norman Conquest, it is unlikely that unobserved differences in formal institutions drive our results. At the same time, geographic conditions conducive to trade explain the emergence of self-governance. This suggests that trade and economic prosperity played an important role for the evolution of institutions (Lipset, 1959; Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2004). Of course, this is not to say that formal institutions per se did not matter. In fact, the Norman Conquest itself represents a major institutional change that arguably enabled the countrywide economic and political progress that followed (Brooke, 1961, pp. 94-108; Tait, 1936, p. 136). In addition, Farm Grants themselves improved local institutions and thereby fostered merchant activity, creating a positive feedback loop from institutions to economic development.

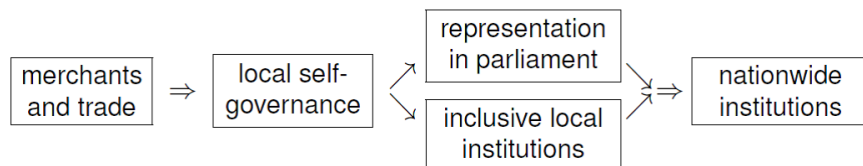


Diagram: Steps of the Argument

One concern with our empirics is that trade geography may drive institutional outcomes such as representation in Parliament independent of Farm Grants. A historical feature helps us to address this issue: boroughs belonged either directly to the king (“royal boroughs”), or to a local mesne (lay or ecclesiastical) lord. Farm Grants were almost exclusively granted to royal boroughs by the king; mesne lords rarely granted liberties to their towns.<sup>10</sup> Among the 145 royal boroughs, 71 (49%) had received Farm Grants by 1348, as compared to a mere 16 (4.0%) among the 404 mesne boroughs. A likely explanation for this difference is that monitoring issues of public officials were particularly severe for the king because of i) the large size of his territory, ii) his frequent absence from the realm due to engagements in external wars, and iii) the fact that there was an additional administrative layer – the sheriffs – between the king and borough officials. In contrast, mesne lords controlled much smaller territories, and they directly appointed the officials collecting the farm from ‘their’ boroughs, thus effectively acting as “sheriffs” themselves. This can explain the minuscule share of mesne boroughs with Farm Grants; we also find that the few Farm Grants in

<sup>10</sup>Importantly for our argument, only mesne lords could give Farm Grants (or, more generally, political liberties) to their boroughs. That is, a mesne borough could not receive a Farm Grant from the king, who was not the recipient of the borough’s farm.



mesne territories are unrelated to trade-favoring geography. Consequently, we can use mesne boroughs as a “placebo” to check if trade led to representation in Parliament *independent* of Farm Grants (e.g., via wealth). This seems unlikely: for mesne boroughs, we find no relationship between trade geography and representation in Parliament.<sup>11</sup> In other words, in the absence of Farm Grants, merchant boroughs were not more likely to be enfranchised. The placebo also holds for other long-run institutional outcomes (election of local officials and support for Parliamentarians during the Civil War).<sup>12</sup> Our results thus suggest that Farm Grants acted as stepping stones for merchant towns’ contribution to the emergence of inclusive institutions.

Our paper makes novel contributions along three main dimensions: First, we study the economic determinants of medieval self-governance in a large cross-section of towns. Second, we establish the link between self-governance and towns’ representation in Parliament. Third, we document long-run interactions between local self-governance and nation-wide institutions. We discuss the related literature in Section 2. In Section 3 we present the historical background, and in Section 4, our data. Section 5 presents our main empirical results on Farm Grants and representation in Parliament by 1348, and Section 6, our results on local and nationwide institutions in the centuries thereafter. Section 7 concludes.

## 2 Related Literature

The relationship between corrupt local bureaucracies and the emergence of local political liberties has been investigated in the modern context (Bardhan, 2002; Bardhan and Mookherjee, 2006). Our paper contributes to this literature by systematically analyzing the relationship between trade, taxation, and self-governance over the long run, and linking it to the emergence of inclusive institutions. Greif, Milgrom, and Weingast (1994), Stasavage (2014), and Puga and Trefler (2014) investigate the link between the interests of the merchant class and institutional developments. Greif et al. (1994) emphasize the role played by medieval merchant guilds as a commitment device for autocratic rulers. By coordinating the responses of merchants to expropriations by rulers,

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<sup>11</sup>We also show that this is unlikely to be driven by structural differences between royal and mesne boroughs. Both had a similar distribution of taxable wealth right after the Norman Conquest, and royal boroughs were evenly distributed across England (see also Figure 4). In addition, trade geography predicts other economic outcomes such as commercial importance or population equally well in *both* royal and mesne boroughs (see Section 4.2). Finally, a similar overall number of mesne and royal boroughs was represented in Parliament by 1348: 56 and 73, respectively.

<sup>12</sup>For long-run outcomes that involve representation in Parliament (i.e., election and voting behavior of MPs) we cannot apply the placebo check because it would effectively involve two ‘placebo steps’ – geography predicting (or not) enfranchisement itself, and then the outcomes, which are only available conditional on enfranchisement. However, we perform an alternative placebo check for these outcomes. We use historical records to identify boroughs where exogenous events (such as silting up of rivers) permanently obstructed trade *after* they received Farm Grants. We show that Farm Grants in the absence of trade have very similar predictive power as in our main results. This makes it unlikely that our results are confounded by a direct effect of trade (or unobserved correlates of trade) on long-run institutions.

medieval guilds allowed for an increase in trade volumes from which both rulers and merchants benefitted. Stasavage (2014) analyzes ca. 170 Western European towns between AD 1000 and 1800, and shows that the control of local institutions by merchant (and craft) guilds initially fostered population growth, but later hampered it. Since this study covers cities across Europe, it relates to our discussion of city autonomy in areas governed by small local vs. large territorial lords in the conclusion (and in more detail in Appendix C). Puga and Trefler (2014) show that in late medieval Venice, trade led first to constitutional constraints on autocratic rulers and then to the rise of a narrow oligarchy. While Puga and Trefler (2014) examine merchant families within Venice, we focus on a large cross-section of towns and analyze how local institutions interacted with national ones (the parliament).

The interaction between local and national institutions links our paper to González de Lara et al. (2008) and Van Zanden, Buringh, and Bosker (2012), who argue that the balance of administrative power between king, feudal lords, and towns was an important determinant of the early European national representative system. In line with our findings, González de Lara et al. (2008) argue that the rising administrative power of towns in medieval times constrained English monarchs – long before the Civil War and the Glorious Revolution in the 17th century, which have received most attention by scholars. In a similar context, Acemoglu and Robinson (2017) model the competition for dominance between the state and civil society. Relating our empirical findings to their theory, early modern England represents a “happy middle ground” where state and civil society were in relative balance. This triggered positive competition that resulted in the emergence of an inclusive state.<sup>13</sup> Glaeser and Shleifer (2002) make the case that the English kings’ ability to control the territory vis-à-vis feudal lords is important to understand the spread of the Common Law legal system, in which the king delegates adjudications to better-informed local juries.<sup>14</sup> We contribute to this strand of the literature by investigating the sources of towns’ fiscal and judicial autonomy, and the far-reaching effects of local liberties in fostering democratization in England. Our paper is the first to examine this mechanism empirically, using a comprehensive town-level dataset that spans several centuries.

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<sup>13</sup>A concrete example for this “positive competition” is English cities obtaining liberties in exchange for paying higher taxes that supported the state. Liberties, in turn, improved cities’ bargaining power when negotiating extraordinary taxation (which in turn was used to finance wars and build state capacity).

<sup>14</sup>There are several parallels to our analysis: similar to Glaeser and Shleifer (2002), we argue that decentralization (granting charters of liberties) was an efficiency-enhancing outcome because it allowed better-informed local stakeholders to collect taxes and enforce justice. This is also in line with our observation that Farm Grants were typically bought by commercially important boroughs, who had most to gain from a functioning judicial system and self-administered tax collection. Crucially, in boroughs that obtained independent justice, the king kept the right to intervene in case of judicial conflict via itinerant royal justices who regularly checked on local officials. In line with Glaeser and Shleifer (2002), this system could only work because the English kings were sufficiently powerful to have local influence (in contrast to the French kings in medieval times).



North and Thomas (1973), North and Weingast (1989), Bates and Lien (1985), and Stasavage (2011) also emphasize the relationship between the rise of trade and the evolution of constitutional constraints on rulers. Jha (2015) shows that financial innovations – i.e., stock ownership in overseas companies – fostered MPs’ support for the Parliament during the English Civil War, which in turn strengthened parliamentary control over sources of revenues. Our focus is on the earlier – and often overlooked – spread of political liberties to merchant towns and their initial representation in Parliament. In the spirit of Levi (1999), self-governance restricted the ruler’s ability to extract resources from towns, and led to their representation in Parliament, where extra-ordinary taxation was negotiated efficiently. Wars – and the need to finance them – are often considered vital to the evolution of political liberties (see, for instance Bates and Lien, 1985). We point to a novel channel through which wars can lead to liberties. Because conflicts were often fought abroad, the king’s absence from England and his significant need for revenues exacerbated the issue of controlling the local administration, which in turn resulted in the king granting Charters of Liberties.<sup>15</sup> Since these, in turn, led to representation in Parliament, warfare did not only affect state capacity (c.f. Tilly, 1990; Besley and Persson, 2009; Gennaioli and Voth, 2015), but also inclusive institutions.

Our paper is also related to the literature that investigates the determinants of franchise extensions. One leading explanation is that democratization serves as a commitment device for redistribution under the threat of revolution (see Acemoglu and Robinson (2000) for a theoretical contribution and Aidt and Franck (2015) for empirical results that support this channel). In addition, oligarchies may voluntarily extend the franchise when this process leads to a more efficient provision of public goods (Lizzeri and Persico, 2004). Our results emphasize the “deep roots” of votes in favor of extending the franchise – towns with medieval liberties supported the Great Reform Act in 1832. This may have been motivated both by their history of self-governance (and thus broader local franchise), but also because the Act increased the pro-trade coalition in Parliament. This finding – together with our result that towns with medieval Farm Grants were more likely to support parliamentarians during the Civil War – contributes to the literature on the long-term consequences of early adoption of inclusive institutions (Persson and Tabellini, 2009; Giuliano and Nunn, 2013; Guiso, Sapienza, and Zingales, 2016).

### **3 Historical Background**

This section summarizes the historical background of institutions in England after the Norman Conquest, with a particular focus on the emergence of Charters of Liberties and the representation of boroughs in Parliament.

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<sup>15</sup>Appendix A.1 shows that the timing of Farm Grants in medieval England is closely aligned with external wars.

### 3.1 The Norman Conquest

In 1066, William the Conqueror (Duke of Normandy) landed at Pevensey, heading a large French army to conquer England. The conquest resulted in a dramatic change in land ownership, as documented in the Domesday Book of 1086. The Normans replaced the entire Anglo-Scandinavian elite: by 1086, 180 barons had appropriated the land of 80 English lay lords; only two Englishmen were still holding large estates from the king (Barlow, 1961, pp. 94-96). The ecclesiastical landholders (bishops and archbishops) were also replaced. Compared to the Anglo-Saxon period, the Normans strengthened the control over the territory by greatly diminishing the power of the earls and imposing a homogeneous feudal society (Brooke, 1961). In addition, the local administration was also largely replaced, as we document below. In sum, the Norman Conquest resulted in relatively homogenous formal institutions across England and thus constitutes an ideal starting point to study the subsequent evolution of inclusive institutions.

### 3.2 Territorial Administration: Royal and Mesne Territories

Post-Norman-Conquest England was divided into shires (modern-day counties), and these were in turn divided into hundreds. Each hundred was composed of manors within which rural and urban settlements – villages and boroughs – coexisted. Boroughs were characterized by the presence of a market and a trading community. Unlike villagers, burgesses did not have to provide labor services to their lord; they could also own land property in the borough, on which they paid a tax to the lord.<sup>16</sup> Our focus is on boroughs because these were the main locations of merchant activities in medieval and early modern England.

Figure 1 illustrates the administrative layers in medieval England. The person with the highest authority over an area was its owner: either the king or a local (*mesne*) lord. In the centuries following the Norman Conquest, approximately 25% of all boroughs belonged to the king, 50% to lay mesne lords, and 25% to ecclesiastical mesne lords.<sup>17</sup> While mesne lords were tied to the king by feudal (military) obligations, they were entitled to receive almost the entirety of their land's profits.

As shown in Figure 1, the king and mesne lords appointed officials who enforced the law and collected taxes in their respective territories. The king appointed sheriffs in each shire. These, in turn, appointed bailiffs in hundreds and boroughs that belonged to the royal demesne (Tait, 1936). Officials had fiscal and judicial authority within their jurisdiction, and each responded to

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<sup>16</sup>Ballard (1913). Burgesses could move as part of their trading activity. However, acquiring the status of burgess in a borough other than that determined by birth was difficult.

<sup>17</sup>Throughout the text, we refer to both lay and ecclesiastical lords as mesne lords. “Mesne” means “middle” in medieval French, referring to the position of mesne lords, who had vassals, but were themselves vassals of the king. We discuss the distribution of boroughs between king and mesne lords in Section 4.1.

the officials with wider jurisdiction.<sup>18</sup> Mesne lords organized the administration of their territories independently from royal officials. However, they governed significantly smaller territories than the king. Thus, the range of officials in the mesne demesne was more limited. In particular, an equivalent office to that of the royal sheriff did not exist in mesne territories; instead, mesne lords directly appointed and monitored local officials in their boroughs.

### 3.3 The Commercial Revolution: Boroughs, Markets, and Trade

Our analysis coincides with the Commercial Revolution – a period of booming economic activity that saw substantial increases in urban settlements and trade. The number of recorded urban settlements increased drastically: boroughs went from 112 in 1086 to 549 by 1348. Around 150 fairs were established in England by the end of the twelfth century, and more than 1,000 newly licensed markets were recorded between 1200 and 1349 (Britnell, 1981; Masschaele, 1997; Langdon and Masschaele, 2006). Beginning in the mid-12th century, the king licensed all English markets – in both royal and mesne territories – in exchange for an up-front fee. A license gave the market holder the right to build the necessary infrastructure, hold the market on a given day of the week, hold the market court, and collect various tolls (Davis, 2011). Toll and fees from trade became a substantial part of the royal budget.<sup>19</sup> Traded goods included agricultural produce, food, clothes, and manufactured products. Coinage in circulation increased both in absolute terms – from £25,000 to £900,000 – and per capita (Mayhew, 1995). Richard I introduced the first national customs tariff. In 1203-4, a total of £4,958 were collected from 35 ports, a sum equal to the total value of all mesne lords' lands in 1086, as recorded in the Domesday Book (Langdon and Masschaele, 2006).

### 3.4 Tax Farming

The contractual arrangement between the king – or, in mesne territories, the lord – and his tax-collecting officials was known as *tax farming*. The *farm* of a territory was a fixed amount of money representing the sum of all tax revenues from that territory. For urban settlements, this included taxes on trade such as tolls and market transaction fees, as well as court fees and the gable (a tax on the “burgage tenement” – the land owned by burgesses).<sup>20</sup> Farms were customarily fixed

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<sup>18</sup>See Ballard (1913) and Green (1989). Other officials existed at both the shire/hundred level (e.g., shire justiciars, itinerant justices, justices in eyre, under-sheriffs, itinerant serjeants, serjeants of the hundreds) and the borough level (e.g., coroners, ale-tasters, clerks, bedels, sub-bedels, cacherels, summoners, messengers, and toll collectors). See Cam (1963) for detail. These officials were also appointed by higher layers of the royal administration – except for the local officials in boroughs with self-governance, as we discuss below.

<sup>19</sup>To avoid that trade was stifled, the king imposed limitations on the rates of tolls and charges to be levied on traders (Britnell, 1978; Masschaele, 1997). In 1189, the proceeds of the fair of St. Giles amounted to £146 8s. 7d., a sum comparable to the annual taxes the king received from his wealthiest boroughs (Poole, 1955, p. 77).

<sup>20</sup>See Ballard (1904) and Masschaele (1997). Other permanent sources included a land tax (*geld*) in rural areas, proceeds from the lord's demesne houses (*gablum*), and receipts from mints (Ballard, 1904, pp. 63-64). At times, extraordinary taxes were also collected, such as the *aides* and *tallages*, on which we comment below.

for each borough (and also for rural villages and manors) right after the Norman Conquest, based on the Domesday survey of 1086.<sup>21</sup> Within each shire (county), the sum across all boroughs and manors gave the customary shire farm. With the booming economic activity in the late medieval period, the king adopted a system that allowed him to benefit from the increased tax base without the need to adjust the customary farm. He began to auction off the right to collect the farm at the shire level, and the customary farm reflected the king's "reservation price." Whenever the winning bid exceeded this value, the king enjoyed an *increment*. The official who won the auction became the sheriff ("shire reeve"), who was responsible for the farm of the shire (Ballard, 1913). The sheriff retained any revenue in excess of his bid to the king. This system created incentives for extortionary behavior by the sheriff, as discussed in detail below.

The sheriff appointed officials in royal boroughs who were in charge of tax collection and markets (constables, market viewers, ale-tasters, etc.). He also presided over the shire court and appointed officials (bailiffs/reeves) who ran borough courts that dealt with trespassing, debts, and disputes between merchants (Cam, 1963). Sheriffs were often drawn from the royal court (*curia regis*) and were thus unfamiliar with the local economic environment (Poole, 1955; Harris, 1964; Carpenter, 1976; Green, 1989). This information asymmetry became particularly relevant after the onset of the Commercial Revolution, when extra-ordinary taxation was levied increasingly on movable goods (as opposed to easy-to-assess land). Due to the frequent bidding for the office (especially in the 13th century), sheriff positions also had a relatively high turnover, with typical term lengths of about 3-5 years (Heiser, 1997). The short tenure of sheriffs invited predatory behavior and contributed to the wide-spread misconduct.

### *Misconduct of Officials*

Keeping local officials in check was a significant problem, especially in the vast territory owned by the king, and during the frequent absences of the king and his household because of external wars and crusades. The severity of misbehavior is reflected in countless complaints about local officials. For example, the contemporary Henry of Huntingdon (ca. 1088-1154) wrote "Sheriffs and reeves, whose office was justice and judgment, were more terrible than thieves and plunderers, and more savage than the most savage" (cited in Bisson, 2009, p. 178). Similarly, the abbot of

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<sup>21</sup>The Domesday book was an exhaustive survey of all English lands (landholders, tenants, inhabitants, etc) conducted in 1086. The main purpose of the survey was to assess the value of the land and its assets. To conduct it, England was divided into seven regions, with three to four royal commissioners sent to each. These royal commissioners surveyed thousands of settlements, by subjecting juries composed of nobles and burgesses to detailed questioning. The information was written in Latin and combined with other records to produce the final document. As Jenkins (2011, pp. 38-39) observes, "The survey was...dubbed the Domesday Book by the Saxons, because its decisions, like those of the Day of Judgment, were unalterable. [...] It did more than record. It marshalled Norman England into an administrative whole."

Ely's description of the local sheriff Picot in c. 1090 leaves little doubt about his behavior: "A hungry lion, a ravening wolf, a cunning fox, a dirty pig and an impudent dog" (Blake, 1962, p. 262). The flood of complaints triggered numerous formal inquiries and legal reforms. During an inquiry, the king sent officials from his household to gather and investigate complaints about local officials. We have records of 21 such inquiries, many of which lasted several years. Surviving records of inquiries give a vivid picture of local officials' misconduct. For instance, the Inquest of the Sheriffs in 1170, which led to the removal of most sheriffs and lower-level officials, tells us of reeves extracting unauthorized tolls and of sheriffs abusing shire courts by summoning burgesses to act as jurors at inconvenient times and places, only to fine those unable to attend (Poole, 1955; Cam, 1963). Similarly, the Hundred Rolls Inquiries in 1274-75 contain complaints involving over 1,000 officials (Cam, 1963, p. 229). Sheriffs were accused of imposing arbitrary financial penalties, making arrests without any formal accusation, refusing to give proper receipts for payments in order to collect debts twice, and extracting unauthorized tolls (Cam, 1963; Masschaele, 1997).

English kings were aware of the widespread misconduct of their officials, and they tried to address this issue – albeit with limited success. Several legal reforms encompassing statutes, ordinances, and provisions explicitly addressed the issue of controlling local officials. To the best of our knowledge, at least 34 major reforms (out of a total of ca. 80 pieces of legislation over the period 1086-1307) contained chapters dealing with this issue, either by limiting officials' prerogatives or by creating new offices whose purpose was to monitor existing officials (see Luders et al., 1810 and Douglas and Rothwell, 1996). For instance, local shire justiciars and coroners were introduced during the 12th century to diminish the sheriff's judicial prerogatives (Carpenter, 1976). Similarly, the Exchequer – instituted around 1110 – tightened control over the sheriffs' financial accounts (Cam, 1963; Powicke, 1962). In 1204, king John dismissed many sheriffs and appointed new ones as *custodes* rather than farmers. Custodians were meant to transfer all revenues to the Exchequer – minus allowed expenses – and became paid officials entitled to a salary. However, this system did not prove effective at rooting out expropriation, and it was discontinued during the period leading to the Magna Carta (Powicke, 1962; Carpenter, 1976). In 1212-3, John summoned knights of the shire – lesser nobles – from each shire to report complaints about local officials' behavior to the king's council (Holt, 1981). The Magna Carta (1215-1217) – famous for empowering lords vis-à-vis the king – also included provisions that sought to limit the pervasiveness of the administration. For instance, it forbade the shire court from meeting more than once a month, and the sheriff from making more than two *turns* through his shire per year.<sup>22</sup> In the 1240s-50s, Henry III attempted to increase the minimum price at which a shire could be farmed. This led

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<sup>22</sup>The *turn* was the circuit of hundreds done by the sheriff. In each visited hundred, he would preside over the hundred court, often using these occasions to extract unauthorized fines.

to an explosion of complaints about officials' misbehavior and eventually to reforms in 1258-9 (Carpenter, 1976).

The boom in commercial activity in the 12th-13th century exacerbated the distortions imposed by an inefficient and extorting administration.<sup>23</sup> At the same time, the various attempts to fix the system (e.g., appointing salaried local gentry as sheriffs) proved largely ineffective. By 1275, Edward I's inquiries had made clear that the measures undertaken by his predecessors had not been successful at keeping royal officials in check.

### 3.5 Charters of Liberties in Royal Territories

The misbehavior of local officials when collecting taxes and administering justice disrupted trade and thus prevented boroughs from reaching their full economic potential. This meant that there was scope for efficiency gains, and the key laid in self-administered tax collection. Although this implied a significant loss of administrative control for the king, granting boroughs autonomy over their administration had the potential to i) ensure more efficient tax collection and law enforcement, and thus greater realized gains from trade and ii) reduce the king's costs of monitoring officials (due to launching inquiries, creating extra layers of bureaucracy, etc.).

#### *Farm Grants*

Starting with Henry I, many boroughs obtained the right to self-administer the collection of the borough farm ("Farm Grants"). Lincoln was the first borough to receive a Farm Grant in 1130.<sup>24</sup> The initiative in seeking administrative autonomy was often taken by merchant guilds or similar local collective action bodies (Reynolds, 1977). Boroughs paid their lord in exchange for these liberties. Payments included a one-time lump-sum payment known as *fine*, as well as two annual components: i) the *farm* (which had previously been collected by the sheriff), and ii) an *increment* on the farm. The fine – usually of a similar magnitude as the annual farm – was often used to quickly raise money during wars (Tait, 1936). This can explain the close association between Farm Grants and external wars (see Appendix A.1). The Charter of Andover (granted in 1205) illustrates the two annual components of Farm Grants:

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<sup>23</sup>Accordingly, several statutes sought to address the need for registered commercial contracts and more potent dispute resolution (e.g., the Statute of Acton Burnell in 1283, the Statute of Merchants in 1285, and the Statute of Westminster II in 1285). The Statute of Merchants states that i) speedy justice is needed to support trade, ii) the sheriffs meant to provide it abused their position, and iii) justice to merchants is therefore the responsibility of mayors elected by burgesses (where relevant). For further detail see Ballard and Tait (1923); Tait (1936); Poole (1955); Powicke (1962); Cam (1963).

<sup>24</sup>Earlier, other Charters of Liberties were granted to some boroughs – most prominently the right to hold a market and have a borough court. It was a royal prerogative to grant charters bestowing market licenses across *both* royal and mesne territories. However, this was not the case for Farm Grants, which could only be granted by the owner of the respective territory (who also collected the borough's farm). In particular, the king had no right to give Farm Grants to mesne boroughs. In some instances, the king would acknowledge mesne Farm Grants.



Know ye that we have granted [...] to our burgesses of Andover our manor of Andover with all its appurtenances at fee farm, to hold to them and their heirs of us and our heirs by the ancient farm, to wit, at £80 a year, and as increment £15 which they formerly gave us for having the said manor at farm during our pleasure, and in addition £10 which they afterwards added for having the said manor at fee farm, and this farm, to wit, £105 in the whole, they shall pay at our Exchequer yearly to us by their own hands [...].

The Charter first notes that Andover used to pay a farm of £80 a year (collected by royal officials). Andover then agreed to pay an increment of £15 per year for the right of self-administered tax collection, and an extra £10 per year for the right to keep this contract in perpetuity (subject to revocation in case burgesses failed to pay the agreed-upon farm). Where detailed records survived, they suggest that this setup is representative, and that Farm Grants typically constituted a net gain in tax revenue to the king.<sup>25</sup> In particular, a net gain for the king implies that a borough's annual fee for its Farm Grant was larger than the decline in the total farm collected from the corresponding shire. For instance, in Lincoln, burgesses paid £180 to the king, while the sheriff's farm of the entire shire was reduced by only £140, implying a gain of £40 to the king.<sup>26</sup>

Did burgesses gain equally from Farm Grants? To provide quantitative evidence, we would need to know how much royal officials were extracting for themselves prior to a grant. This information was not recorded. However, Farm Grants were not imposed; they were an option for burgesses. This implies that burgesses must have benefitted, as well. These gains did not only consist of avoiding extortions and distortion to local economic activity. Farm Grants also included the right for burgesses to elect the local officials in charge of the financial and judicial administration of the borough, such as reeves and market officials (Gross, 1906; Ballard, 1913; Tait, 1936).<sup>27</sup> Typically, all male burgesses had a say in the election of a borough's officials. For example, the Ipswich Dom-Boc of 1291 states that "...the whole town of the borough of Ipswich gathered in the churchyard of St. Mary at Tower to elect two bailiffs and four coroners for the town, according to the specifications of the charter of the aforesaid lord King [John], which that king recently granted to the borough."<sup>28</sup>

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<sup>25</sup>See, for instance, Ballard (1913, pp. lxxvi-lxxvii).

<sup>26</sup>One may presume that sheriffs would oppose Farm Grants because they were the losing party. Even though sheriffs tried to oppose early legislation that limited their judicial prerogatives (Holt, 1981), their position was much too weak – as shown by their wholesale dismissal in several occasions (Maddicott, 1981) – to stage successful opposition to Farm Grants, and no such incidences are documented.

<sup>27</sup>Because borough officials also collected taxes on merchants coming from different boroughs, burgesses – once in control of the local administration – may have been tempted to extract high taxes from external merchants. However, the king forbade this practice and enforced limits to taxes on trade.

<sup>28</sup>Original text (in Latin) from Gross (1890, pp.116-123). Translation adapted from "History of Medieval Ipswich" (<http://users.trytel.com/~tristan/towns/ipswich2.html>). In practice, councils composed of wealthy individuals were often in charge of choosing officials. Examples include Norwich, where by the end of the 13th century, officials were chosen by an annually elected body of 24 (usually wealthy) citizens. In Exeter, surviving records indicate that, in the

### *Other Liberties and Compliance with Obligations*

In addition to the right to collect taxes and elect local officials, burgesses often obtained i) that the sheriff be forbidden from entering the borough to perform judicial tasks (*non-intromittat clause*), ii) the right to circumvent the sheriff, by handing over the farm and all other debts owed to the king directly to the Exchequer (*direct relation with the Exchequer*), and iii) the right to execute royal orders themselves within the borough – for example, to summon local juries for assessment and collection of extra-ordinary taxation (*return of writs*).<sup>29</sup> If burgesses in possession of these liberties failed to comply with their obligations, the king would temporarily remove these liberties and send royal officials into town. The same was true regarding the payment of the farm.

### **3.6 Farm Grants in Mesne Territories**

Farm Grants were almost exclusively granted to boroughs in royal territories – despite the fact that these merely accounted for one-fourth of all boroughs. As shown in Figure 2, overall, 87 out of 549 boroughs that existed in 1348 had received Farm Grants. Among the 145 royal boroughs, 71 received Farm Grants (49.0%). In stark contrast, among the 404 boroughs governed by mesne lords, only 16 became chartered (4.0%).<sup>30</sup> These differences likely resulted because mesne lords faced less severe administrative problems than the king, due to three reasons: First, mesne lords were in charge of much smaller territories than the king. Consequently, they were geographically closer to their officials.<sup>31</sup> Second, the administrative layer that created most upset among royal boroughs was absent: there was no equivalent to sheriffs in the mesne demesne (see Figure 1). Mesne lords effectively acted as sheriffs in their smaller territories, directly appointing and monitoring local officials. Consequently, mesne lords exerted a firmer control over their administration (Tait, 1936). Third, sheriffs in royal territories were typically not locals and were frequently replaced (see Section 3.4). This invited predatory behavior, and their limited local knowledge was an obstacle to the efficient enforcement of commercial contracts. In contrast, mesne lords often had castles, fortifications, or other dwellings in the boroughs under their control and thus possessed detailed local knowledge that was also passed on to their heirs. Thus, the degree of asymmetric

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1260s, 36 electors (chosen by a group of four influential citizens) chose the chief officials of the city (Attreed, 2001, pp. 14-22). Nevertheless, even in this case, local interests were represented to a larger extent than in boroughs without Farm Grants, where the sheriff alone appointed local officials.

<sup>29</sup>For further detail see Ballard (1913) and Ballard and Tait (1923).

<sup>30</sup>Figure A.2 in the appendix provides a map, showing that there is no apparent clustering; chartered boroughs are spread relatively evenly across England.

<sup>31</sup>One may think that royal boroughs closer to London would have suffered less from monitoring issues. However, in that period, the royal court was itinerant rather than permanently based in London. Moreover, the king himself was constantly on the move due to conflicts (c.f. Hindle, 1976). Also, there were no administrative restrictions to granting Charters of Liberties in mesne territories: mesne lords were independent from the king in granting charters to their boroughs.

information between local tax payers and tax collectors was arguably less severe in mesne territories. This reduced the scope for efficiency gains of delegating tax collection and law enforcement to locals.<sup>32</sup> Correspondingly, complaints against officials in mesne territories were less common than in the royal demesne (Jobson, 2012, p. 30).

The differences in monitoring capacity are a likely explanation for the contrast in Charters of Liberties between mesne lords and the king. This point receives further support when we split mesne boroughs by the size of their lords' territories (as described in Appendix A.2). Figure 3 shows that boroughs owned by lords with larger territory were more likely to receive Farm Grants. Among the lords with the smallest territories (seigneurs, abbots, and nunneries), essentially no charters were granted. Boroughs in territories administered by bishops (which were of intermediate size) saw some Charters of Liberties being granted. Finally, among the largest mesne lords (earls and archbishops), the proportion of boroughs with Farm Grants was significantly larger – albeit still only one-fifth of the frequency in royal territories.

### **3.7 Early Parliaments and Negotiation of Taxation**

The origins of the English Parliament can be traced back to the great councils of the realm whose main purpose was to gather information about local economic and political conditions (Holt, 1981; Post, 1943) and to discuss extra-ordinary taxation (Mitchell, 1914). Originally, only barons and the higher clergy were summoned to these assemblies. However, starting in c. 1212, knights of the shire were summoned from each shire to meet the king alongside the higher clergy and the barons. The Magna Carta in 1215, and the events leading up to it, further entrenched the importance of the great councils as a check on royal power. Soon after, it became customary to refer to these broader councils as *parlement* (from the Anglo-Norman verb *parler* – ‘to talk’).

These councils, however, did not initially include merchants and burgesses. This changed in 1265, when Simon de Montfort headed the Second Baronial Revolt. Facing dwindling support among the barons, Montfort also summoned boroughs to a national assembly in an attempt to expand his coalition against the king. This set the precedent for the representation of burgesses in what became the *Commons* (lower chamber) in the English Parliament (while lords and bishops are represented in the Upper House – the ‘House of Lords’). From 1268 onwards, shortly after having re-established his authority, the king summoned similar assemblies that included borough representatives, and, in 1295, Edward I called what would become known as the ‘Model Parliament.’ The Parliament was composed of members of the clergy, the aristocracy, two knights of the

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<sup>32</sup>An example is the borough of Arundel in south England. The borough was under the control of the Fitzalan mesne lord dynasty, who resided in Arundel Castle. Arundel did not receive a Farm Grant, despite the fact that it “as the trading centre of the honour, had by [the early 14th century] developed to quite substantial proportions.” (<http://www.historyofparliamentonline.org/volume/1386-1421/constituencies/arundel>).

shires from each county, and two burgesses from selected boroughs.

Continuing the enfranchisement of boroughs made sense in the light of efficient information sharing and discussing extra-ordinary taxation. The spread of borough liberties in the 12th and 13th centuries had resulted in a separation between boroughs' and counties' (shire) administrations, tax collection systems, and systems of local courts. This made it desirable for the king to summon burgesses in addition to knights of the shire. This separation was particularly strong for boroughs that enjoyed self-governance (Farm Grants), and especially for those that had explicitly purchased the right to exclude the sheriff (e.g., the rights of *non-intromittat* and *return of writs*). By summoning representatives from boroughs, the king acquired information about local conditions and facilitated the implementation of decisions. In particular, the Parliament enabled the king to efficiently discuss "local tax assessment and collection, supervising local government, administering the law locally, and collecting and reporting complaints." (Holt, 1981, p. 28). In addition, the need for direct communication with boroughs was particularly important in times of extra-ordinary taxes on movables and trade (Bates and Lien, 1985). These were typically levied during "cases of necessity" (wars). Then, feudal law "demanded that he [the king] obtain the consent of all whose rights and liberties were affected, and this consent was voluntary [...]. This did not mean that the commons enjoyed a sovereign right of consent: they simply had, as before, the right to hear the case of the government, and to negotiate on the amount of the subsidy [...]. The representatives were needed by the government to report on how much their constituents could give" (Post, 1943, 373-4).

Parliament was not sitting continuously. Instead, the king summoned it, typically when there was the need to raise extraordinary taxes for warfare. Once summoned, enfranchised boroughs had a few weeks to elect and send their MPs to Westminster. To ensure the timely raising of taxes, the king required the representatives of the community of the realm (knights of the shire and burgesses of boroughs) to possess full powers (*plena potestas*); that is, representatives' consent was binding for their communities (Post, 1943; Maddicott, 1981). To legitimize MPs' authority in representing enfranchised boroughs, all male householders doing "watch and ward" (i.e., participating in the local system of peace-keeping) were entitled to vote for their MPs (Porritt, 1909, p. 5).

In the course of the fourteenth century, the Parliament came to acquire increasing prerogatives in the areas of administration, justice, and finance. This evolution became particularly evident during the reign of Edward III, "and the year 1327, in which Parliament participated in the deposition of a king, divides as accurately as any single date can the phase when Parliament was still essentially a royal tool from that when it developed a political momentum of its own" (Harris, 1981). By the 1330s, the *Commons* were separated from the *Lords* and, by 1376, they had a speaker. At the close of Edward III's reign, most of the legislation was based on petitions made by

the *Commons*, and statutes required the assent of the Parliament (Harriss, 1981).

## 4 Data

In this section, we describe the construction of the variables that are novel to the literature: borough level data on medieval Farm Grants, parliamentary franchise, influence of the king on local politics, and geographic features. We also discuss the division into royal and mesne boroughs, and the empirical conditions for using the latter as a placebo. The remaining outcome variables (e.g., votes for the Great Reform Act) are described briefly in the respective empirical sections below and in Appendix A.

### 4.1 Borough-Level Data in Post-Norman Conquest England

We collect data on the number of English boroughs, their foundation date, the nature of their ownership (royal vs. mesne), taxation, and local liberties between 1066 and 1348. This information comes mostly from the digitized version of original medieval documents (e.g., charters and letter patents collected in the Pipe Rolls, Charter Rolls, Fine Rolls, Close Rolls, and Patent Rolls).

#### *Borough Ownership: Royal vs. Mesne*

To obtain the number of boroughs in existence by 1348, we use the primary data collected by Beresford and Finberg (1973) and Letters, Fernandes, Keene, and Myhill (2003). We know of 549 boroughs as of 1348, and we obtain information on whether these were owned by royal or mesne lords from the British History Online (<https://www.british-history.ac.uk>), Ballard (1913), and Ballard and Tait (1923). Our coding yields 145 royal and 404 mesne boroughs.<sup>33</sup>

#### *Taxable Wealth in 1086 and Geography*

For each borough with documented existence as an urban settlement in 1086, we code the value of the borough as measured by the taxable wealth (*geld*) recorded in the Domesday Book.<sup>34</sup> To obtain geographic characteristics, we geocode the location of all boroughs as well as medieval navigable rivers and Roman roads in use in the 11th and 12th centuries. Information on navigable rivers is collected from Edwards and Hindle (1991), Langdon (1993), Jones (2000), Langdon (2000), Peberdy (1996), Gardiner (2007), Hooke (2007), Langdon (2007), and Rippon (2007). To account for

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<sup>33</sup>Over the period 1086-1348, 73 boroughs changed ownership from royal to mesne, or viceversa, typically due to inheritance issues. In the cases where ownership changed, we classify boroughs as royal if they belonged to the king for a non-negligible part of the time (more than 25%). The reason is that even relatively short spells of royal ownership were sufficient for the king to grant Charters of Liberties. In Appendix A.2 we describe the ownership coding in more detail and also show that our results are robust to more conservative coding of ownership, excluding those boroughs that were held for less than 90% of the time by a mesne lord or the king. Finally, the boroughs Weymouth and Melcombe were joined for parliamentary purposes in 1571. We treat these as separate observations in our pre-1348 analysis, and as a single borough in our long-run analysis with outcomes after the 16th century.

<sup>34</sup>An open source for the Domesday Book is available at <http://opendomesday.org>. See footnote 21 for more detail.

possible endogeneity, we exclude humanly modified sections of rivers (Blair, 2007; Bond, 2007; Rhodes, 2007).<sup>35</sup> Information on Roman roads is collected from Hindle (1976). We compute an index of soil quality in a radius of 10 km around each borough, based on the suitability of growing low input level rain-fed cereals provided by the Food and Agriculture Organization (FAO). We also compute the terrain ruggedness for each borough, using the granular data provided by Nunn and Puga (2012).<sup>36</sup> Finally, we also geocode the four historic pre-Norman kingdoms (Mercia, Wessex, Northumbria, and East Anglia) by relying on Hill (1981).

### *Commercial Importance of Boroughs*

To assess a borough's commercial importance, we combine two measures into an index: First, Masschaele (1997) identifies 51 commercial centers in the mid-14th century. "This select group, ..., comprises the settlements that contemporaries repeatedly perceived as being economically distinct from all other settlements in the country and that had sufficient capital resources to influence commercial development within a regional environment" Masschaele (1997, p. 82).<sup>37</sup> Second, we gather information on whether a borough obtained a grant from the king that provided "freedom from tolls" throughout the realm. Those liberties were granted by the king to 87 royal and mesne boroughs by 1348; they allowed all merchants from a borough to move tradeable goods throughout the realm (including territories governed by mesne lords) without facing tolls.<sup>38</sup> Information on freedom from tolls is available from Ballard (1913), Ballard and Tait (1923), and Weinbaum (1943). Based on the two indicators we derive the index *Commercial Importance* as their first principal component.

### *Data on Charters of Liberties Granted to Boroughs*

We use the information on different Charters of Liberties (e.g., judicial, commercial, financial) contained in the collection of borough charters reported in Ballard (1913), Ballard and Tait (1923), and Weinbaum (1943). We further expand on the information in these datasets by coding liberties

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<sup>35</sup>We only use non-minor rivers as reported in Edwards and Hindle (1991) and listed as navigable in Langdon (1993) and/or Jones (2000). For the areas not covered by the analysis in Langdon (1993) and Jones (2000), we consider as navigable rivers those that are listed as non-minor in Edwards and Hindle (1991), or those that are listed as minor but for which we have evidence for their navigability in the History of Parliament (<http://www.historyofparliamentonline.org>).

<sup>36</sup>For a straightforward interpretation of coefficients, we standardize both the soil quality and the ruggedness variable. For the former, *lower* values in the original FAO data correspond to better land for farming. We thus use the negative standardized variable.

<sup>37</sup>Masschaele's classification is based on a variety of criteria such as the presence of a merchant guild, the payment of lay subsidies on land and goods at the urban rate (as opposed to the rural rate) in 1294-1336, and the classification as an urban settlement in the *Nomina Villarum* military census of 1316.

<sup>38</sup>"Freedom from tolls" comprised all the market charges (transaction fees, right of displaying goods in markets, etc.) The exception were tolls collected by boroughs *j* that had obtained the "right to levy tolls on merchants" *before* borough *i* obtained its "freedom from tolls." Thus, in practice, more ancient grants were more valuable to their holders.



contained in the Charter Rolls, Close Rolls, Fine Rolls, and Patent Rolls of the reigns of Henry III, Edward I, Edward II, Edward III, and Richard II.<sup>39</sup> For every borough, we document the Charters it received with the date of the grant. Farm Grants were the most important liberties that boroughs could obtain.<sup>40</sup> Figure 2 provides an overview of the Farm Grants obtained by royal and mesne boroughs. We also code whether a borough obtained restrictions on the entry of royal officials in judicial functions (*non-intromittat*), to enforce royal orders (*return of writs*), and in financial functions (*direct access to the Exchequer*).

## 4.2 Balancedness of Royal and Mesne Boroughs

As explained in Section 3, Farm Grants were almost exclusively granted by the king to royal boroughs, while they were largely absent in territories administered by mesne lords. This bears the question to what extent royal and mesne boroughs were actually comparable – could it be, for example, that the king “cherry-picked” commercially important towns after the Norman Conquest, so that mesne boroughs were mostly poor rural places? In the following, we examine balancedness by using information that was available to the king when boroughs were distributed after the Conquest: geography and taxable wealth in 1086. Figure 4 shows the location of the 549 English boroughs that existed by 1348. There does not seem to be spatial clustering – the 145 royal boroughs (solid squares), and the 404 mesne boroughs (hollow dots) are distributed relatively evenly across England. This is likely a result of the king trying to ensure his influence across the realm. However, there is a tendency for royal boroughs to be located on rivers or Roman roads. We examine this systematically in Table 1. Columns 1-3 in Panel A show that about 30% of royal boroughs were located on a navigable river, as compared to 13% among the mesne boroughs. The proportions for Roman roads are 43% vs. 29%. These differences are statistically significant (while for location on the sea coast, there is no significant difference).

A likely explanation for these differences is that the king needed to ensure that royal officials could reach his boroughs. This interpretation – as opposed to the king systematically picking the *richest* boroughs – is also supported by the data on taxable wealth of boroughs from the Domesday

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<sup>39</sup>These sources are digitized and available at <http://www.medievalgenealogy.org.uk/sources/rolls.shtml>. To identify the Charters of Liberties granted to each borough, we read through the text in all Charter Rolls. We interpret the non-observance of a grant in a given borough as evidence for the absence of a grant. This approach is warranted by the high data quality and survival rate of historical data on Charters of Liberties (e.g., Pipe Rolls, Quo Warranto records). In addition, grants are often recorded in multiple documents because they were repeatedly confirmed by successive lords or by the king, which reduces the probability of missing them.

<sup>40</sup>The vast majority of boroughs either obtained Farm Grants in perpetuity or renewed them successively. However, a few chartered boroughs suffered temporary revocations, either because of their failure to pay their farm as promised, or because they failed to uphold common law. In Appendix B.6 we show that our main results also hold when using the duration of each borough’s Farm Grant over the period 1066-1348 – even within the subsample of the 87 boroughs that received Farm Grants by 1348.

book in 1086. Figure 5 shows that the distribution of taxable wealth was similar across royal boroughs (dashed line) and mesne boroughs (solid line). Panel B in Table 1 shows that royal boroughs were on average wealthier, with a p-value of 0.06. However, the average difference is mostly driven by the three richest boroughs (which were all royal). Once these are excluded, the p-value drops to 0.21. In addition, when controlling for the geographic features from Panel A, the p-value drops to 0.52, while the geographic variables are strong predictors of taxable wealth (see Appendix B.3 for detail). This suggests that there was no selection on borough wealth per se; instead, the king picked more accessible locations, which resulted in royal boroughs being somewhat richer due to an advantage in trade.<sup>41</sup>

While the lack of geographic balancedness potentially raises concerns, we argue that this is unlikely to affect our results for two reasons: First, all our empirical results hold after controlling for royal status of boroughs, and also within the subset of royal boroughs. This means that ‘selection’ by the king does not directly affect our findings. Nevertheless, balancedness is still desirable when we use mesne boroughs as a placebo (i.e., boroughs that looked otherwise similar to royal ones, but that very rarely got Farm Grants). This is where the next point comes in: Second, we can ‘create’ balancedness. As shown in Panel A in Table 1, there are in fact *overall more* mesne boroughs on navigable rivers, Roman roads, and on the sea coast. It is merely the *proportion* that is higher in royal territories. Thus, one way to create balancedness would be to randomly exclude mesne boroughs not located on rivers etc., until the proportions are the same in royal and mesne territories. A more efficient way to achieve balancedness is to use all observations, but assign lower weights to those mesne boroughs that are not on rivers, roads, or the sea. This is implemented by the Entropy balancing algorithm of Hainmueller and Xu (2013). The right part in Table 1 shows the results of rebalancing observations in the ‘control group’ (mesne boroughs) so that they match mean and variance of the three geography variables in the ‘treatment group’ (royal boroughs). After Entropy balancing, the means in the two groups are very similar and statistically indistinguishable, with p-values of 0.95 or higher. In Panel B, we show that balancing yields virtually identical means for taxable wealth (the higher precision results because now only one variable is involved, as opposed to three in panel A). In the empirics below, we show that our results that use mesne boroughs as a placebo are highly robust to Entropy balancing.

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<sup>41</sup>A compatible piece of historical evidence is that the king declared royal more than one-half of the approximately 100 boroughs that existed at the time of the Norman Conquest (“Domesday boroughs”), many of which had been strategically founded on waterways and roads by Romans and Anglo-Saxons for trading and military reasons (Tait, 1936). Note, however, that this imbalance of boroughs across royal vs. mesne territories did not persist: Many initially rural locations gained importance during the Commercial Revolution and thus obtained the status of boroughs. Overall, the Domesday Book covers 276 locations that were boroughs by 1348. Out of these, the king owned 73 (or 26.5%). This is the same proportion as for all boroughs owned by the king in 1348 (145 out of 549, or 26.4%).

### *Predictive Power of Geography in Royal and Mesne Boroughs*

Next, we perform an additional check that underlines the comparability of royal and mesne boroughs. In Table 2 we show that trade-favoring geography predicts economic activity in *both* royal and mesne territories. We use three different economic variables. Columns 1 and 2 show that navigable rivers and Roman roads positively predict taxable wealth in 1086, while boroughs by the sea coast had lower taxable wealth.<sup>42</sup> In columns 3 and 4, we find that navigable rivers and sea coast are strong predictors of our measure for commercial importance in the 14th century (described above). Finally, columns 5 and 6 use city population in the mid-17th century as dependent variable.<sup>43</sup> We find that city size is positively predicted by location on a navigable river and Roman roads in both subsamples. Importantly, the three geography variables are jointly highly significant in all specifications: p-values (shown in the bottom of Table 2) are 0.02 or lower throughout. The fact that trade geography predicts economic activity in both territories supports our use of mesne boroughs as a placebo region where Farm Grants were extremely rare, while other economic relationships that are central to our analysis were similar to those in royal boroughs.

### **4.3 Data on Parliamentary Franchise and Royal Influence on Local Politics**

Beginning with the first English Parliaments summoned by Edward I, we record the date when boroughs gained parliamentary franchise. Until the 17th century, enfranchisement was a royal prerogative (Hawkyard, 1991). Enfranchisement was customary: If a borough was once summoned to Parliament, it could claim the right to representation forever after.<sup>44</sup> The information on boroughs' parliamentary franchise is collected from the series of volumes *History of Parliament: The House of Commons*, which covers the period from the creation of Parliament to the Great Reform Act of 1832.<sup>45</sup>

Beginning in 1345, the king issued Charters of Incorporation to boroughs.<sup>46</sup> Incorporated

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<sup>42</sup>The negative coefficient on sea coast is likely driven by two facts: i) the Norman Conquest had left some of the boroughs on the Channel coast devastated, and ii) Danish attacks via the sea were still common until the consolidation of Norman control in the late 11th century. By the 12th century, locations by the sea had largely recovered from these negative shocks, so that we can use sea coast as a proxy for commercial activity in later periods.

<sup>43</sup>This is the first period for which population is available for a large number of boroughs. Data are from <https://discover.ukdataservice.ac.uk/catalogue?sn=7154> and Langton (2000). City population has been widely used as a proxy for economic activity (DeLong and Shleifer, 1993; Acemoglu et al., 2005; Dittmar, 2011; Squicciarini and Voigtländer, 2015).

<sup>44</sup>However, boroughs that let their franchise expire (e.g., by failing to return members for long periods of time) could be denied re-enfranchisement. In our baseline analysis, we only code boroughs as enfranchised that retained their seats in Parliament until 1830. In Appendix B.6 we show that our results are very similar when coding also those boroughs as enfranchised that were later denied re-enfranchisement.

<sup>45</sup>In particular, Roskell (1993), Bindoff (1982), Hasler (1981), Ferris and Thrush (2010), Henning (1983), Cruickshanks, Handley, and Hayton (2002), Sedgwick (1970), Namier and Brooke (1964), Thorne (1986), and Fisher (2009).

<sup>46</sup>Boroughs paid to receive these charters. They sanctioned town-level prerogatives accumulated in the preceding centuries, harmonized governance structures, and bestowed new prerogatives (Weinbaum, 1943). Mesne boroughs

boroughs were allowed to own property and issue by-laws. They were governed by municipal councils headed by mayors (Tait, 1936). The Charters of Incorporation include information on the election of the governing body. We code two variables, based on the information reported in Weinbaum (1943). First, we code whether the king appointed the first members of this body right after the borough’s incorporation (*first appointment clause*). Second, we code whether subsequent members of the governing body were selected by co-optation, thus perpetuating the initial influence of the king (*cooptation*). For all 157 boroughs with available data that were incorporated between 1345 and 1641 (and that existed by 1348), we then create an indicator that takes on value one for boroughs with both *first appointment clause* and *cooptation*. This variable reflects the influence of the king on local decision making (*influence king*). We find 66 boroughs (42.0%) with strong royal influence.

## 5 Main Empirical Results: Farm Grants and Representation in Parliament

In this section we present our main empirical results. We begin by examining which boroughs received Farm Grants and then show that these are strong predictors of representation in Parliament.

### 5.1 Charters of Liberties

We have already shown that Farm Grants were given almost exclusively to royal boroughs (see Section 3 and in particular Figure 2). In the following we show that this finding is extremely robust and not driven by differences across royal and mesne boroughs such as geography or wealth. We run the following regression for a cross-section of boroughs  $i$ , where the dependent variable is an indicator for a Farm Grant received before 1348:

$$Grant_i = \alpha + \beta Royal_i + \gamma Wealth_i [+ \delta Trade_i] + \rho_c + \varepsilon_i, \quad (1)$$

where  $\alpha$  is a constant term,  $Royal_i$  is a dummy for royal ownership of borough  $i$ , and  $Wealth_i$  is log taxable wealth as reported in the Domesday book in 1086.  $Trade_i$  denotes different geographic characteristics of a borough that favor trade: location on a navigable river, location on the sea coast, and location on a Roman road. Since trade affects wealth, we do not include the two variables simultaneously. Finally,  $\rho_c$  denotes fixed effects for geographic units  $c$  (either 4 pre-Norman kingdoms or for the 40 English counties), and  $\varepsilon_i$  is the error term.

Table 3 presents the first set of results. Column 1 shows that royal boroughs were 45 percentage points (p.p.) more likely to receive Farm Grants, relative to an average of 15.8 percent across all

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could also receive a Charter of Incorporation from the king with their lord’s assent. Following the Dissolution of the Monasteries of 1536-41, many ecclesiastical boroughs passed into the king’s hands and received Charters of Incorporation soon after.

boroughs. The (highly significant) coefficient corresponds to the difference shown in Figure 2. In column 2, we show that the coefficient on *Royal* is virtually unchanged when we control for soil suitability and ruggedness, and include fixed effects for the four kingdoms that existed in England before the Norman Conquest (Wessex, Mercia, Northumbria, and East-Anglia). In fact, all dummies for the pre-Norman kingdoms are individually statistically insignificant, and they are also jointly insignificant (with a p-value of 0.81). This suggests that there are no relevant regional differences dating back to the split of England before 1066 that later affected Farm Grants. Soil suitability is unrelated to Farm Grants, while there is a negative relationship with ruggedness. This is in line with our argument below that more remote places – with less trade – were less likely to receive Farm Grants. In column 3 we include county (shire) fixed effects. Again, the coefficient on *Royal* is unchanged.

Next, we use data on taxable wealth of boroughs in 1086, which is available for about half of the boroughs in our sample. We thus first check whether our results in Table 3 also hold in the smaller subsample. Comparing column 4 with the same specification for the full sample in column 1, we see that the coefficient on *Royal* is very similar. This suggests that results from the smaller subsample are representative of all boroughs. In column 5, we control for log taxable wealth (and for completeness, for soil suitability and ruggedness). The coefficient on *Royal* does not change, which implies that differences in wealth across royal and mesne boroughs (see Section 4.2) are not responsible for the fact that Farm Grants are almost exclusively observed in royal territories. We check this further in the following two columns: In column 6 we use entropy weights so that the mean and variance of *Wealth* are the same in royal and mesne boroughs (see Section 4.2 and Table 1); and in column 7 we use propensity score matching, comparing royal vs. mesne boroughs with similar or identical taxable wealth. In both cases, the coefficient on *Royal* is almost exactly the same as in our baseline specification in column 1. Finally, in column 8 we include an interaction term between taxable wealth and the status as a royal borough. This term is strong and positive, implying a total coefficient on taxable wealth of 0.098 in royal boroughs, as compared to 0.017 in mesne boroughs. To illustrate the magnitude, suppose that we first move a royal borough from the 10th to the 90th percentile of taxable wealth. This will raise its odds of receiving a Farm Grant by 30.9 p.p. (on top of a baseline probability of 29.4 percent, as indicated by the coefficient on *Royal*). In contrast, in mesne boroughs, the figure is 5.5 p.p. (on top of a baseline probability of zero). We thus have two central findings: i) royal boroughs had *on average* a much higher chance to receive Farm Grants; ii) wealthier boroughs had a markedly larger *incremental* probability of receiving Farm Grants in royal territories.

### *Geography-Based Proxies for Trade*

We now turn to the role of trade as a predictor of Farm Grants. Following our discussion in Section 3, we expect a positive effect of trade for two reasons: First, trade made boroughs richer, resulting in higher potential efficiency gains of self-administered tax collection and enforcement of commercial contracts. Second, the value of movable goods was harder to monitor and assess for external authorities than, for example, land. This information advantage of local merchants raised the gains from self governance. We use three geographic variables as predictors for trade: A borough's location on navigable rivers, on the sea coast, and on Roman roads.<sup>47</sup> Table 4 shows that all three proxies for trade are significantly positively associated with Farm Grants (col 1). The coefficients are larger when we restrict the sample to royal boroughs (col 2), and effect sizes are particularly strong for the two water-based proxies for trade. This is in line with estimates by Masschaele (1993) that in the 13th century, the cost of transporting goods by sea or by navigable river was about one-sixth the cost of road transport.

Next, column 3 in Table 4 restricts the sample to mesne boroughs, showing that there is, if anything, a small negative relationship between trade geography and (the few) Farm Grants that are observed in mesne territories.<sup>48</sup> The coefficients on trade geography remain small and become statistically insignificant in column 4, where we use Entropy weights to create balanced geographic features in royal and mesne boroughs (see Section 4.2 and Table 1). The non-results for mesne boroughs imply that favorable trade locations did not experience an increased likelihood of self-governance when they were owned by local lords. We will later exploit this feature to use mesne boroughs in placebo exercises. We further underline the royal-mesne difference in column 5, where we use interactions of our three trade variables with the status as royal borough. The interaction terms are highly significant and positive, while the trade proxies themselves are small and negative. The same result holds in column 6, where we add county fixed effects, and in column 7, which uses Entropy weights. The interaction results underline that trade-favoring geography boosted the

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<sup>47</sup>As Michaels and Rauch (2017) point out, the collapse of the Western Roman Empire in the 5th century AD temporarily ended urbanization in Britain. After the recovery in late medieval times, towns in Britain were less frequently located on Roman roads, as compared to continental Europe. Instead, British towns often located on navigable waterways. Thus, our three proxies for trade capture both pre-existing (but largely unused before 1066) infrastructure, as well as natural geography. Our main results hold when we use only navigable rivers and sea coast as proxies for trade. Also, despite its significant negative association with Farm Grants (see Table 3) we do not include ruggedness in our geography-based proxies for trade. The reason is that ruggedness also reduces agricultural productivity (Nunn and Puga, 2012).

<sup>48</sup>Mesne lords often had dwellings in the most important boroughs of their territories, giving them a strong degree of control over these towns. Thus, there were two opposing forces that can explain the zero (or slightly negative) net effect of trade geography: On the one hand, trading towns had more to gain from Farm Grants. On the other hand, in mesne territories, they were more likely to be under direct control of local lords, which made it less likely that those lords would grant them liberties (as in the example of the borough Arundel, discussed in footnote 32).



odds of obtaining Farm Grants only in royal boroughs.

### *Additional Results on Trade Geography and Wealth*

In Appendix B.3 and B.4 we provide a number of additional results and robustness checks that we briefly discuss here. In Table A.2 we show that trade geography predicts taxable wealth in 1086, and that the relationship between trade and Farm Grants worked at least in part via taxable wealth – royal boroughs that were richer because of trade were also more likely to obtain Farm Grants. As expected, this effect is not present in mesne lords’ territories. In Table A.3 we show that boroughs with Farm Grants tended to be commercially more important already in the 14th century. This further supports our interpretation that commercially important towns had more to gain from self-administered tax collection. At the same time, it is coherent with chartered boroughs thriving commercially, i.e., with a positive feedback from self-governance to economic performance.

## **5.2 Representation in Parliament**

We now turn to the second step of our argument: The relationship between Farm Grants and representation in the English Parliament. We focus on the House of Commons, where boroughs and counties were represented. Figure 6 provides an overview of enfranchisement over time. By 1348 (using the same cutoff date as for Farm Grants), 129 boroughs had obtained seats in Parliament; 73 of these were royal, and 56 were mesne boroughs. The second and third bar show that the majority of boroughs with Farm Grants had obtained seats in Parliament (62 out of 87), while this proportion was much smaller among boroughs without Farm Grants (67 out of 462). In other words, seats in Parliament in 1348 were almost evenly split between boroughs with and without Farm Grants, despite the fact that there were much fewer of the former.

We argue that boroughs with Farm Grants were enfranchised because they were in a more powerful bargaining position: given their self-governance, the king had to negotiate extra-ordinary taxation with them. But why were boroughs without Farm Grants enfranchised? The historical literature offers a variety of explanations. For some towns, a powerful bargaining position – for reasons unrelated to Farm Grants – led to their enfranchisement. For example, many enfranchised boroughs without Farm Grants belonged to mesne lords who had the right to exclude royal officials from their territories (Willard, 1934).<sup>49</sup> Similarly, boroughs that played a strategic military role such as the Cinque Ports – which provided most of the royal naval service for warfare – were enfranchised even though not all of them had received Farm Grants. For other, much less powerful boroughs, “strategic enfranchisement” played a role – an attempt by the king to control the House

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<sup>49</sup>Given his limited ability to tax these boroughs, and because parliamentary taxes were imposed on both royal and mesne boroughs (Mitchell, 1914; Willard, 1934), the king thus had an interest in summoning their representatives to Parliament in order to negotiate the taxes needed to fight wars (Levi, 1999).

of Commons by giving seats in Parliament to small rural boroughs that were under the close control of his allies. This motive was particularly salient for enfranchisement after 1348. The right part of Figure 6 shows that in the later period, between 1349 and 1700, 74 additional boroughs were enfranchised, and the vast majority of these (62) did not have Farm Grants. In Appendix B.5 we provide empirical and historical evidence for “strategic enfranchisement.” We find that enfranchised boroughs without Farm Grants were particularly likely to become “rotten boroughs” (i.e., economically unimportant and under the close control of a local patron) – especially so after 1348. This suggests that many of the boroughs without Farm Grants that obtained seats in Parliament were enfranchised strategically by kings, in an attempt to gain influence in the House of Commons and to counterbalance the coalition of merchant towns.

We continue with our main empirical result, showing that there is a close (and likely causal) relationship between Farm Grants and representation in Parliament. Table 5 presents the results for enfranchisement by 1348. Column 1 shows that there is a quantitatively large relationship in the raw data: boroughs that had received Farm Grants were 56.8 percentage points more likely to be represented in Parliament – relative to an average share of 23.5 percent among all boroughs. The coefficient on Farm Grants is almost identical when we control for county fixed effects and terrain characteristics (col 2), and when we restrict the sample to royal boroughs (col 3). The latter implies that the relationship in the full sample is not driven by (unobserved) systematic differences between royal and mesne boroughs.<sup>50</sup> In column 4, we present reduced-form results for royal boroughs, using our instruments for trade-favoring geography. All three variables are positive predictors of enfranchisement, and they are jointly highly significant with a p-value of 0.014. Next, we perform two analyses to examine whether this reduced-form relationship works via Farm Grants. First, in column 5, we add Farm Grants as a regressor. The coefficient is almost identical to the previous regressions, while the three instruments become quantitatively small and individually and jointly insignificant. This suggests that the relationship between trade geography and representation in Parliament works via Farm Grants.<sup>51</sup> Second, in column 6, we present 2SLS results, using trade geography to predict Farm Grants in royal boroughs. We find a highly significant coefficient on (predicted) Farm Grants that is quantitatively very similar to the OLS specification in column 3.

Could it be that our results are driven by unobserved characteristics that correlate with trade

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<sup>50</sup>Note that royal boroughs were more likely to be represented in Parliament: the mean of the dependent variable is 0.5 (shown in the bottom of the table). However, this difference is almost exclusively explained by the fact that Farm Grants were predominantly granted in royal boroughs, and rarely in the mesne demesne: when controlling for *Royal* in the full sample (col 1), the coefficient on Farm Grants remains large (0.47) and highly significant.

<sup>51</sup>This specification must be interpreted with caution due to correlated regressors. However, note that all explanatory variables are dummies and that, if anything, Farm Grants (based on historical records) are more prone to measurement error than geographic features of boroughs. Thus, the “bad control problem” (Angrist and Pischke, 2009) is unlikely to drive the strong coefficient on Farm Grants.

geography, Farm Grants, and representation in Parliament?<sup>52</sup> To address this point, we perform a placebo analysis using mesne boroughs – where Farm Grants were rarely granted.<sup>53</sup> Column 7 in Table 5 shows that there is essentially no (if anything, a small negative) relationship between trade geography and enfranchisement. The same is true in column 8, where we use Entropy weights to create balancedness between royal and mesne boroughs (see Table 1). Thus, in the absence of Farm Grants, trade-favoring geography does not predict representation in Parliament (while it does predict other economic outcomes, as we have shown in Table 2). The non-result for mesne boroughs makes it unlikely that our findings for royal boroughs are driven by unobserved correlates of trade geography. The evidence thus supports our two-step argument that for merchant boroughs, Farm Grants were a crucial ‘stepping stone’ on the way into Parliament.

Finally, we perform 2SLS analyses in the full sample. Column 9 in Table 5 uses the three geographic variables as well as their interaction with *Royal* to predict Farm Grants. The F-statistic for the first stage is well above the threshold of 10, and we find a highly significant coefficient in the second stage. In column 10, we perform a particularly restrictive exercise: we use only the interaction terms of our trade-based instruments with *Royal*, and include all level variables (i.e., navigable river, sea coast, Roman road, and *Royal*) as controls. This specification complements our placebo exercise above – it addresses the possibility that trade may also have affected representation in Parliament via channels other than Farm Grants. The small and insignificant coefficients on the geography variables suggest that trade did not affect enfranchisement directly, reinforcing our argument that Farm Grants were crucial for representation of merchant boroughs in Parliament.

We argue that Farm Grants made enfranchisement more likely because it was harder for the king to unilaterally impose extra-ordinary taxation in boroughs with self-governance. We expect this to be particularly true for boroughs that did not only have Farm Grants but also additional liberties that restricted the entry of royal officials in judicial, financial, or law-enforcing functions. Figure 7 analyzes this dimension. By 1348, 87 boroughs had gained farm grants, and among these, 38 had obtained additional liberties that restricted the entry of royal officials. In these 38 towns, it was in practice very difficult for the king to impose extra-ordinary taxes without negotiation. Correspondingly, we find that 86.8% of the boroughs with Farm Grants *and* restrictions on royal officials were represented in Parliament by 1348. Among the 49 boroughs that had Farm Grants but

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<sup>52</sup>For example, trade geography may lead to better connections to the central authority, or enhance coordination among burgesses. Both may increase the chance to obtain Farm Grants and seats in Parliament.

<sup>53</sup>Since our argument of enfranchisement builds on negotiating extra-ordinary taxes, it is important to note that mesne boroughs were just as concerned with extra-ordinary taxation as royal boroughs – when it came to financing wars and defending the realm, the royal and mesne demesnes were equally involved (Mitchell, 1914). Thus, both had the same incentives to seek representation in Parliament. This is a necessary condition for mesne boroughs to serve as a placebo that underlines the importance of Farm Grants for enfranchisement.

no restrictions on entry by royal officials, 59.2% were represented in Parliament. While these towns had their own (locally elected) tax collectors, the king could still send his officials to enforce royal orders. Thus, these towns had a somewhat weaker bargaining position vis-à-vis the king, which can explain their lower representation in Parliament. Nevertheless, towns with (only) Farm Grants were still substantially more likely to be represented in Parliament than those without: Among the unchartered boroughs, only 14.5% had seats in Parliament.

Appendix B.6 provides additional results on parliamentary representation. It shows that our results also hold for boroughs' representation in the 'Model Parliament' of 1295 and for enfranchisement in 1700. In addition, we show that longer duration of Farm Grants before 1348 was strongly associated with enfranchisement.

## 6 Farm Grants and Inclusive Institutions after 1400

In this section we examine the relationship between medieval Farm Grants and inclusive institutions in the long-run, over five centuries after 1348.

### 6.1 Independence of Boroughs Politics in the 15-17th Century

We begin by examining the independence of boroughs from the king in appointing their local officials between the 15th and 17th century. The corresponding data are available from Charters of Incorporation, from which we construct the dependent variable *influence king* as described in Section 4.3. Table 6 presents our results. The sample includes only those 158 boroughs that received Charters of Incorporation (77 royal and 81 mesne). We find that boroughs with Farm Grants were 22.1 p.p. less likely than unchartered boroughs to be subject to strong influence of the king (col 1). For comparison, the average proportion of boroughs with strong influence of the king is 42.4%. Since Charters of Incorporations were granted by the king, we control for royal ownership of boroughs. This variable is quantitatively small and statistically insignificant. Our results are robust to including county fixed effects and terrain controls (ruggedness and soil quality) in column 2. Column 3 presents 2SLS results, using trade geography to predict Farm Grants. The coefficient is statistically significant and somewhat larger than its OLS counterpart. However, due to the reduced sample size of incorporated boroughs, weak instruments are a concern, so that the coefficient size must be interpreted with caution.

In columns 4-6 of Table 6, we repeat the previous regressions in the subsample of *royal* boroughs that were incorporated. We obtain highly significant and quantitatively even larger coefficients on Farm Grants than in the sample of all incorporated boroughs. In columns 7-9 we perform a reduced-form analysis, regressing *influence king* on trade geography. For royal boroughs (column 7), the three geography variables have the expected negative sign and are jointly highly significant

– mostly driven by navigable rivers, which makes sense, given the importance of inland waterways for early modern trade in England (Edwards and Hindle, 1991; Masschaele, 1993). For our placebo sample of mesne boroughs, there is no significant relationship between trade geography and influence of the king (col 8). This also holds when we use Entropy weighting (col 9). These results make it unlikely that trade geography had an effect on *influence king* in the absence of Farm Grants. In combination, the results in Table 6 thus suggest that – even centuries after being issued – medieval Farm Grants made boroughs more independent in appointing their local officials.

## 6.2 Inclusiveness of MP Elections in 1690-1831

Boroughs with medieval Farm Grants had the right to elect their local officials. In the following, we test the hypothesis that this also led to more inclusive elections of members of Parliament over the subsequent centuries. We use several indicators for how inclusive elections of MPs were over the period 1820-31: i) *Openness Index*: an index from 1-3 for how “open” MP elections were for candidates to run; ii) *Contested Elections*: the number of contested elections (out of a total of four) over the period 1820-31, i.e., MP elections for which there were more candidates than seats for a borough; iii) *Broad Franchise*: a dummy variable that takes on value 0 if the borough had a “narrow franchise” where the right to vote for MPs was attached to land holdings or titles, and value 1 otherwise; iv) *Patronage Index*: This index ranges from 0 (closed constituency, controlled by a local patron) to 2 (open constituency without patronage). The third and fourth variable are from Aidt and Franck (2015). All four variables are coded such that higher values indicate more inclusive elections of MPs; Appendix A.3 provides further detail. All regressions use only the subset of boroughs that had seats in Parliament in 1820-31 and for which data are available (max. 187 observations).

Columns 1-4 of Table 7 show that medieval Farm Grants are a strong predictor of all four indicators for more inclusive MP elections. The coefficients on Farm Grants are statistically highly significant. In terms of magnitude, Farm Grants account for about one-third of the average of the various measures. In columns 5-9, we combine the four measures into their first principal component and run a number of additional checks. Column 5 shows a strong positive coefficient on Farm Grants, corresponding to 0.66 standard deviations of the dependent variable. In column 6 we include several controls used by Aidt and Franck (2015).<sup>54</sup> In column 7 we restrict the sample to royal boroughs, and in column 8 we include county fixed effects. Finally, in column 9 we present

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<sup>54</sup>We thank Toke Aidt and Raphaël Franck for kindly sharing their data. The controls include market integration (travel distance between any given constituency and the 243 other constituencies weighted by the population), distance to urban center (travel days from each constituency to the nearest of the 13 largest towns in 1831), Connection to London (graphical, economic, and informational connections to London), and a dummy for boroughs controlled by the treasury. Aidt and Franck (2015) also control for borough population. Since this as an endogenous outcome of commercial activity that is also predicted by trade-favoring geography (see Table 2), we do not include this variable.

2SLS results using the trade geography variables and their interaction with *Royal* as instruments. All specifications yield highly significant coefficients of similar magnitude.

In Table A.6 in Appendix B.7 we provide additional robustness checks. We use dummies for “fully open” elections based on the maximum value of the *Openness Index*. This addresses concerns about the implicit linearity assumption when using the full index (as in column 1 of Table 7). We also examine a longer time horizon – four sub-periods between 1690 and 1831. Throughout, we find that boroughs with medieval Farm Grants were about 20 p.p. more likely to have open elections, relative to a sample mean of about 0.20 among all boroughs that were represented in Parliament. In sum, the results provide strong evidence that boroughs with medieval Farm Grants had more inclusive MP elections over a long time span between 1690 and 1831.

### 6.3 The Civil War

The English Civil War (1642-1646 and 1648-49) and the events following it ultimately strengthened the English Parliament. In the events leading up to the Civil War, Parliament issued the *Militia Ordinance* without royal approval to raise troops in support of its cause. As a response, the king issued the *Commissions of Array* to raise his own men. The choice whether to obey the *Militia Ordinance* or the *Commissions of Array* forced local officials, lords, and burgesses to pick a side. The parliamentary records from 1642 mention 31 boroughs whose volunteer troops (in support of parliamentarians) were sufficiently important to be explicitly discussed in Parliament. We create the dummy variable *Volunteers* for the 30 boroughs that raised volunteers and existed before 1348.<sup>55</sup> Appendix A.4 provides further detail on the data and more background information on the Civil War.

We expect a positive relationship between *Volunteers* and medieval Farm Grants because chartered boroughs had a particularly strong interest that the Parliament remained an influential institution that favored merchant (as opposed to rural) interests, and in its function as a constraint on the king’s power in interfering with commerce. Figure 8 illustrates our main result: among the boroughs with Farm Grants, 24% raised volunteer troops, while less than 2% of all other boroughs did so. Table 8 presents the corresponding regression results. We begin with the full sample in column 1. We find that boroughs with medieval Farm Grants were 21 p.p. more likely to raise

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<sup>55</sup>Previous research has shown that individual MPs often followed their private interests (such as overseas stock holdings or personal monopolies issued by the king) when deciding to support the king or parliamentarians during the Civil War (Jha, 2015). This often led to MPs from the same borough supporting opposite sides: among the 194 boroughs with more than one MP, 80 saw split support (we are grateful to Saumitra Jha for sharing his data with us). In addition, the members of the Long Parliament were appointed in 1640, two years before the Civil War, and thus had no mandate from their borough constituents as to which side to take. Consequently, individual MP behavior is not a good indicator for *borough*-level preferences during the Civil War. In contrast, voluntary troops raised by a borough in the summer of 1642 were a clear signal for support of the parliamentarians.



pro-parliamentarian troops, relative to a sample mean of 5.5%. We also control for *Royal* as a potentially important determinant for support for the king. However, the coefficient is small and insignificant – a likely explanation is that the distinction between medieval royal and mesne boroughs lost importance with the decline of feudalism in the early modern period (Cam, 1940). In column 2 we control for county fixed effects and terrain characteristics; in column 3, we perform a 2SLS specification that uses trade geography (and its interaction with *Royal*) to predict Farm Grants; and in column 4, we restrict the sample to royal boroughs. All three specifications confirm the strong positive coefficient on Farm Grants. Because incentives to support Parliament may have been larger for enfranchised boroughs, we next restrict the sample to those 189 boroughs in our dataset that existed by 1348 and had seats in Parliament by 1640. Out of these, 28 raised volunteers. The coefficient on Farm Grants is almost identical to the full sample (col 5). The coefficient is also similar in the (even smaller) subsample of 91 royal boroughs that were enfranchised by 1640 (col 6). Thus, results for the subsamples of enfranchised boroughs reflect those in the full sample, and we use the latter for our final analysis: In columns 7-9, we examine the reduced-form relationship between trade geography and *Volunteers*. Column 7 shows a strong reduced-form relationship for boroughs that were royal in medieval times – with a p-value of 0.002 for the joint significance of the three geography variables. In contrast, there is no reduced-form relationship for our ‘placebo’ mesne boroughs (col 8), and this non-result is also obtained when using entropy weights (col 9). These findings suggest that merchant boroughs that received Farm Grants were particularly likely to support parliamentarians during the Civil War. At the same time, the placebo results make it unlikely that this relationship is driven by unobservables that are correlated with trade geography, Farm Grants, and volunteer troops. In sum, our results suggest that medieval self-governance had a long-term effect on the support for a central inclusive institution – Parliament.

#### **6.4 The Great Reform Act of 1832**

The Great Reform Act of 1832 is considered a milestone towards democratization of the UK Parliament. It implemented two major changes: i) harmonizing and extending the franchise across boroughs from 3% to 6-7% of the population, and ii) disenfranchising smaller “rotten” boroughs, while enfranchising the newly industrialized ones (e.g., Manchester). The first Bill was proposed in March 1831, and although approved by the House of Commons by a narrow margin, was then rejected by the House of Lords. This event prompted the collapse of the Government and new MP elections (held in April 1831). Importantly, the MPs that voted in March 1831 had been appointed by their constituencies to vote on a variety of other major issues such as Catholic emancipation, slavery, and the Corn Laws (Fisher, 2009; Brock, 1973). In contrast, the general elections of April 1831 were effectively a referendum on the parliamentary reform, closely tying MPs to their con-

stituencies' preferences on the Reform Act. Two bills were proposed in June and September 1831 and, after some amendments and compromises, a new bill was voted in December 1831 and finally approved in March 1832. Appendix A.5 provides further historical detail.

We focus on the two voting rounds on the Reform Act in March and December 1831. For these two voting rounds, we record the voting behavior of each borough's MPs from the Parliamentary Papers (available at <https://parlipapers.proquest.com/parlipapers>) and compute the share of votes in favor of the Reform Act. We also record whether the borough was to be totally or partially disenfranchised (Section A and B boroughs). In addition, we merge borough-level characteristics (see footnote 54) and a dummy for whether a borough was located in proximity to the peasants' Swing Riots (collected by Aidt and Franck, 2015).

Table 9 presents our empirical results. Column 1 shows that there is essentially no relationship between Farm Grants and pro-reform votes in March 1831, i.e., for the vote by MPs who had been elected based on other issues, before the Reform Act became a major topic. This non-result makes it unlikely that our findings below are driven by unobserved electoral preferences that merely happen to correlate with Farm Grants and support for parliamentary reform. Starting from column 2, we focus on the decisive vote in December 1831, when MPs had been specifically appointed to vote on the Great Reform Act, so that their mandate was closely tied to their borough's preferences on parliamentary reform. Column 2 shows that medieval Farm Grants are a strong predictor of voting behavior of MPs. The coefficient is also quantitatively important, indicating an increase in support by about 18 p.p., relative to an average level of support of 56 percent among the boroughs with representatives in Parliament in 1831. We also control for whether a borough was to be disenfranchised; as expected, the coefficient is strongly negative.

Next, in column 3 of Table 9 we also control for the vote in March 1831. Thus, we effectively exploit the *change* in voting behavior after the newly appointed MPs were closely tied to their borough's preferences on the reform. This specification implicitly controls for unobserved political preferences that were already reflected in the appointment of the MPs that had voted in March. While the coefficient on the March vote is large and significant, the coefficient on Farm Grants remains almost unchanged. This suggests that omitted variables related to other political preferences do not confound our results. We also add a control for whether a borough was located in proximity to rural Swing Riots and thus felt a "threat of revolution" (Aidt and Franck, 2015). The coefficient is slightly smaller than the one on Farm Grants (but the two are statistically indistinguishable). In column 4 we restrict the sample to boroughs that were royal in medieval times. All previous results hold. The same is true in column 5, where we add county fixed effects and additional controls for borough characteristics. Columns 6 and 7 present 2SLS results with and without controls, respectively, using trade geography interacted with the medieval status as a royal

borough to predict Farm Grants. We confirm the OLS results in both magnitude and significance.

What explains the pro-reform voting of boroughs that had received Farm Grants in medieval times? We provide two (possibly complementary) explanations: First, boroughs that were commercially more developed in medieval times were still more reliant on trade in the 1830s.<sup>56</sup> As a result, it is plausible that their incentives were more closely aligned with the preference of the newly industrialized boroughs that were to be enfranchised by the Reform Act. In other words, merchants in boroughs with medieval Farm Grants may have pushed their MPs to support an extension of the pro-trade coalition in Parliament. Second, [Lizzeri and Persico \(2004\)](#) offer another possible interpretation. According to their view, when pork barrel politics prevail, political competition is more likely to lead to a voluntary extension of the franchise when i) the need for the provision of public goods increases and ii) the electorate is relatively large (so that swing voters must content themselves with small bribes). Consistent with this rationale, the Industrial Revolution increased the demand for public good provision (e.g., better sanitation systems). Moreover, as we showed in Section 6.2, boroughs with Farm Grants did indeed run more inclusive MP elections. Thus, our finding on the Great Reform Act lend support to [Lizzeri and Persico \(2004\)](#).

## 6.5 Obstruction of Trade after Farm Grants and Matching Results

Our placebo exercises have shown that in the absence of Farm Grants (i.e., in mesne boroughs), trade-favoring geography did not affect inclusive institutions. A possible concern with this placebo is that the (long-run) relationship between trade and institutional outcomes may have differed in royal vs. mesne boroughs for reasons other than Farm Grants. While this seems historically unlikely – especially given that the medieval distinction between royal and mesne lost importance in the early modern period ([Cam, 1940](#)), we provide an additional placebo that addresses this possibility. In the following, we show that Farm Grants predict inclusive institutions even in the absence of trade. We code an indicator for boroughs in which exogenous shocks obstructed trade *after* they had received Farm Grants. We focus on two types of shocks to transportation infrastructure: First, natural disasters – the silting up or destruction of harbors located on the sea coast (in the spirit of [Jha, 2013](#)), and second, the obstructions of parts of navigable rivers due to watermills (and the associated milldams) that were erected upstream or downstream of boroughs. Particularly severe shocks or obstructions of trade triggered petitions by burgesses asking for subsidies for repairs or tax reductions. Information on these petitions is available from the History of Parliament. Among the 87 boroughs with medieval Farm Grants, 16 suffered trade obstructions between the 13th and 17th centuries – all occurred *after* these boroughs had received a Farm Grant. Appendix B.8 pro-

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<sup>56</sup>To show this, we regress the share of employment in trade-related profession in 1831 (coded by [Aidt and Franck, 2015](#), based on the 1831 census) on medieval Farm Grants in the same sample as used in Table 9. We obtain a highly significant coefficient of 0.059 (s.e. 0.019), relative to a standard deviation in trade employment of 0.129.

vides further detail.

In Table 10 we split boroughs with medieval Farm Grants into those with and without trade obstructions. The first two columns perform a plausibility check: column 1 shows that in medieval times, Farm Grants predict commercial importance with very similar coefficient sizes both with and without (later) trade obstructions. In contrast, by 1831, only Farm Grants without trade obstructions predict commercial employment (col 2). In other words, the boroughs that later suffered trade obstructions started off with the same degree of commercialism as all other chartered boroughs, but they lost their commercial focus by the 19th century. Columns 3-5 in Table 10 re-examine our long-run outcomes after the 17th century (i.e., after trade obstructions occurred). We find that even when trade was obstructed, Farm Grants predict volunteer troops during the Civil War in 1642, inclusiveness of MP elections in 1820-31, and support for the Great Reform Act. The coefficient sizes are statistically significant and similar in magnitude for both Farm Grants with and without trade obstruction – despite the fact that there are fewer boroughs in the former set.<sup>57</sup> These results make it unlikely that unobservables that are correlated with trade (in royal boroughs only) confound our results.

Finally, in Appendix B.9 we provide an additional analysis that uses mesne boroughs as a ‘placebo.’ So far, we used entropy balancing in order to render trade geography in royal and mesne boroughs comparable. In Table A.8 we match, to each ‘treated’ royal borough with a Farm Grant, two ‘control’ mesne boroughs (without Farm Grants) with exactly the same trade geography (e.g., boroughs located on a navigable river and a Roman road, but not on the sea). The matching estimation then compares the various outcome variables from Tables 5-9 for ‘treated’ vs. ‘control’ boroughs, confirming our results.

## 7 Conclusion

We investigate the medieval roots of inclusive institutions by focusing on the prominent case of England. We begin our analysis with the Norman Conquest of 1066, which resulted in relatively homogeneous formal institutions across English boroughs. We develop a two-step argument to explain how towns gained representation in parliament. In the first step, we study the process by which English boroughs obtained the right of self-governance. While medieval English kings exerted strong military control over the royal territory, their administration was inefficient. Royal officials abused their power when collecting taxes and enforcing commercial contracts. This resulted not only in distortions to economic activity, but also in a wave of complaints and costly

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<sup>57</sup> Among the 16 boroughs that suffered trade obstructions after receiving Farm Grants, five obstructions occurred before 1348 (but after Farm Grants were obtained by these boroughs). Table A.7 in the appendix shows that the results also hold when we exclude these boroughs.

investigations. Farm Grants – the right of self-administered tax collection and law enforcement – offered an efficiency-improving solution. This was especially true for boroughs with strong commercial activity. Thus, it is not surprising that the emergence of Farm Grants coincided with the boom in economic activity during the “Commercial Revolution.” In the second step, we relate local self-governance to boroughs’ representation in Parliament by 1348. The Parliament discussed extra-ordinary taxation and grievances about the royal administration, and with time it became the main constraint on the crown. The administrative autonomy of chartered boroughs meant that the king could no longer unilaterally raise extra-ordinary taxes, and the efficient way to negotiate taxation with boroughs was Parliament. Correspondingly, we find that boroughs with Farm Grants (predicted by trade geography) were significantly more likely to be enfranchised.

In the second part of the paper, we examine the long-term implications of merchant boroughs’ representation in parliament. Boroughs with early self-governance maintained a more autonomous and inclusive local administration throughout the subsequent centuries. They also supported the Parliamentarians during the Civil War in 1642 and voted for the Great Reform Act of 1832, which is considered a milestone in the English democratization process.

We provide two sets of placebo results: in the absence of Farm Grants, trade-favoring geography did not affect inclusive institutions; on the other hand, Farm Grants do predict inclusive institutions even if trade was later obstructed by exogenous events. This suggests that Farm Grants – rather than other potential factors that correlate with trade geography – were an important stepping stone towards inclusive institutions.

Our findings offer broader messages for understanding the evolution of inclusive institutions in Western European countries. We provide a discussion of medieval France, Spain, and southern Italy in Appendix C. In these regions, the main factors that enabled commercial towns to obtain self-governance – i.e., kings and lords controlling relatively large territories in combination with an inefficient and distortive tax collection – were also present. Similar to England, many of these towns gained representation in general assemblies where the financing of wars was discussed. However, unlike England, the relative strength of local lords in these countries both limited the scope for towns’ self-governance and gave rise to localism. While regional assemblies worked rather efficiently, general national assemblies ultimately failed to coordinate interests against the crown. Thus, our results suggest a process of “reversal of power” – an initially strong central authority grants local liberties to resolve administrative inefficiencies in its large territory. These liberties render negotiation about extra-ordinary taxation necessary and thus open the door for coordination among commercial towns in constraining the power of the central authority. In ongoing parallel work, we provide a theory that models this pathway towards inclusive institutions.

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## FIGURES

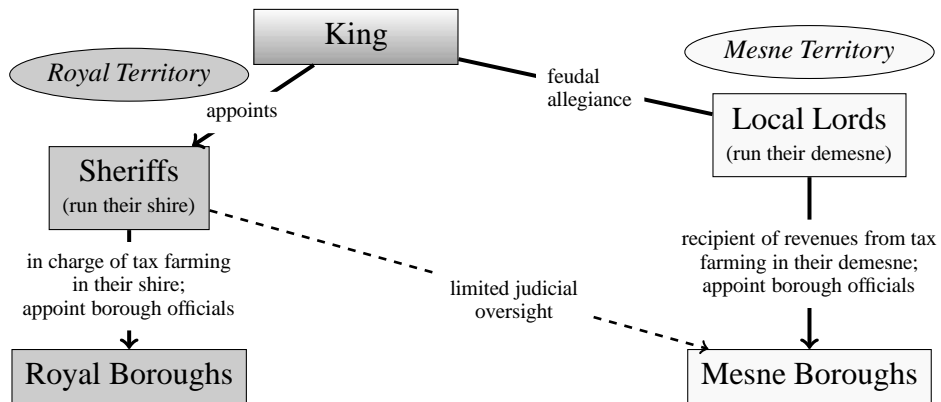


Figure 1: Administration in Royal and Mesne Territories

*Note:* The figure illustrates the main administrative layers in royal and mesne territories for the case of boroughs without Farm Grants. For boroughs with Farm Grants, local officials are elected by the borough's burgesses, and tax collection is self-administered by elected officials. This cuts out the role of the sheriff in royal territories.



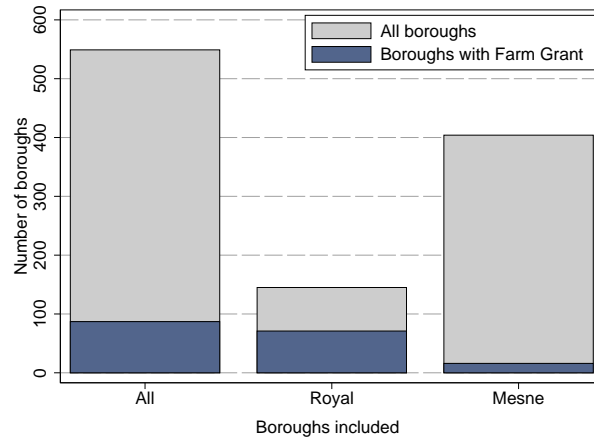


Figure 2: Farm Grants before 1348, by Borough Ownership

*Note:* This figure shows that Farm Grants were granted almost exclusively to boroughs in royal territories, and to a much lesser degree to boroughs owned by mesne lords (who owned smaller land areas). Overall, 87 out of 549 boroughs that existed in 1348 received Farm Grants. Among the 145 royal boroughs, 71 received Farm Grants (49.0%); among the 404 boroughs owned by mesne lords, only 16 (4.0%).

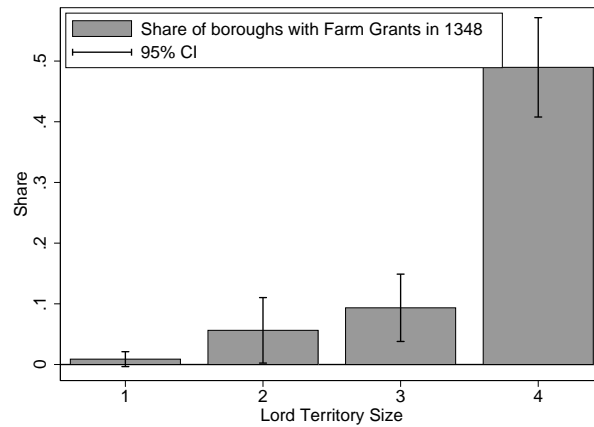


Figure 3: Farm Grants before 1348, by Lord's Territory Size

*Note:* The figure shows that boroughs owned by mesne lords with larger territory were more likely to receive Farm Grants by 1348. The x-axis reflects the size of lord's territory, from smallest to largest: 1=seigneur/abbot/nunnery (overall 226 boroughs); 2=bishop (71 boroughs); 3=earl/archbishop (107 boroughs); 4=king (145 boroughs). The y-axis plots the proportion of boroughs in a lord's territory that received Farm Grants.

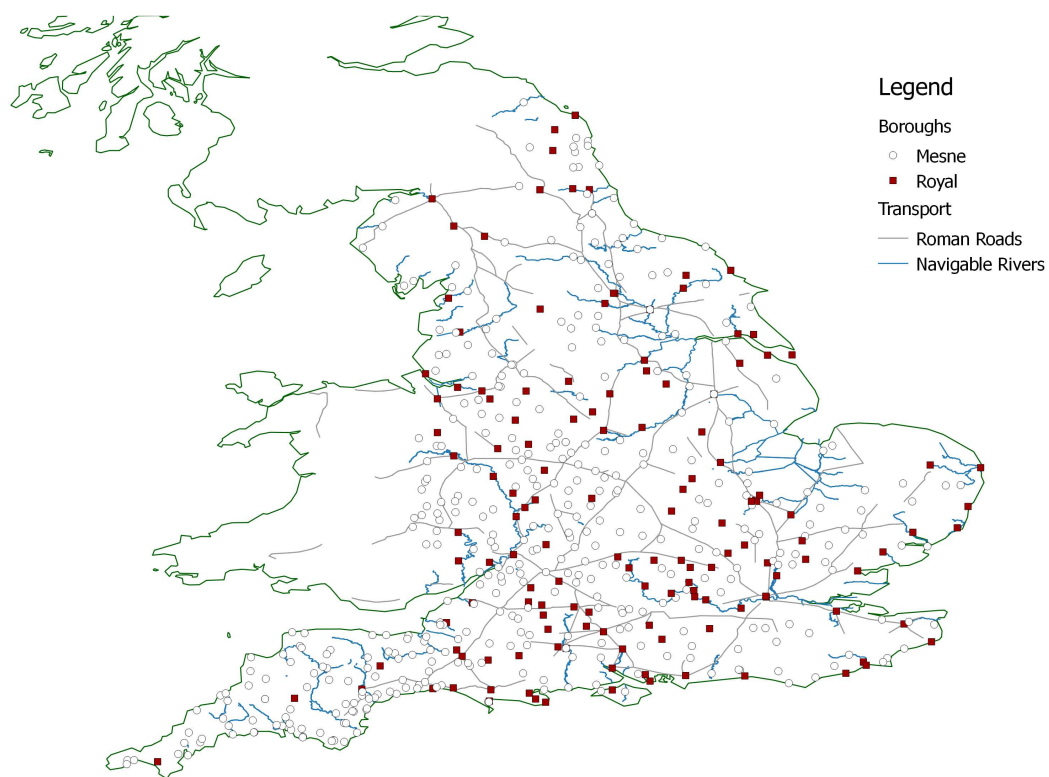


Figure 4: All Boroughs in the Dataset, by Royal and Mesne

*Note:* This figure shows the location of the 549 boroughs in our dataset that existed by 1348. Solid squares indicate the 145 royal boroughs, and hollow dots, the 404 mesne boroughs (owned by local lords or by the Church). The figure also shows the location of navigable rivers and of Roman roads.

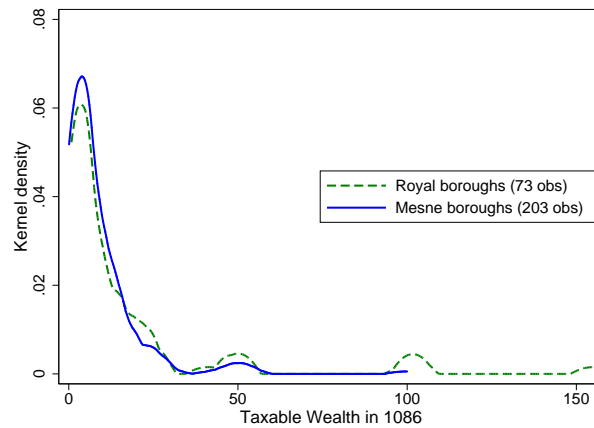


Figure 5: Taxable Wealth in 1086, by Borough Ownership

*Note:* This figure shows that taxable wealth was similarly distributed across royal boroughs (dashed line) and mesne boroughs (solid line). Taxable wealth was assessed by the Normans after their conquest of England in 1066, and summarized in the Domesday Book in 1086.

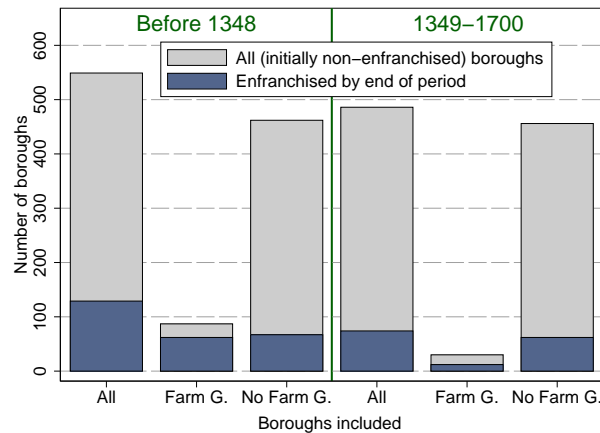


Figure 6: Enfranchisement in Parliament of Boroughs over Time

*Note:* The figure shows the enfranchisement for boroughs with and without Farm Grants. The left part of the figure contains data for all 549 boroughs that existed by 1348; out of these, 129 were enfranchised. By 1348, 87 boroughs had Farm Grants. The right part of the figure contains data for 486 boroughs that existed by 1700 and had *not* been enfranchised by 1348 (altogether, 615 boroughs existed in 1700). By 1700, an additional 12 boroughs had obtained Farm Grants, bringing the total number to 99.

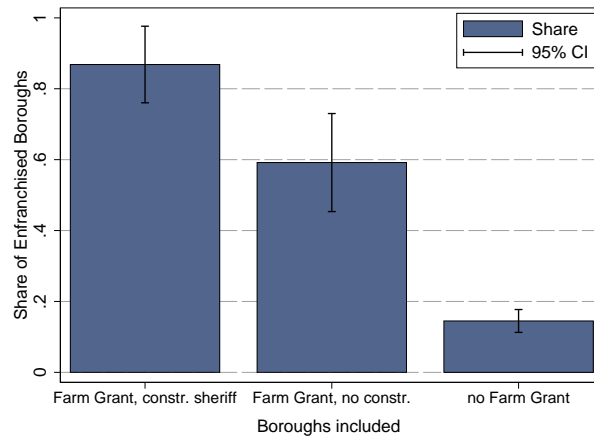


Figure 7: Enfranchisement: The role of Farm Grants and Restrictions on Entry by Royal Officials

*Note:* The figure shows that boroughs with Farm Grants were significantly more likely to be represented in the English Parliament by 1348. This relationship is particularly strong for boroughs that also had constraints on sheriffs entering the borough (and thus restricted means for central authorities to collect extra-ordinary taxes). Restrictions on entry comprise a borough's liberties that prohibited royal officials from entering the borough in their judicial functions (*non-intromittat*), in financial functions (*direct access to the Exchequer*), or to enforce royal orders (*return of writs*).

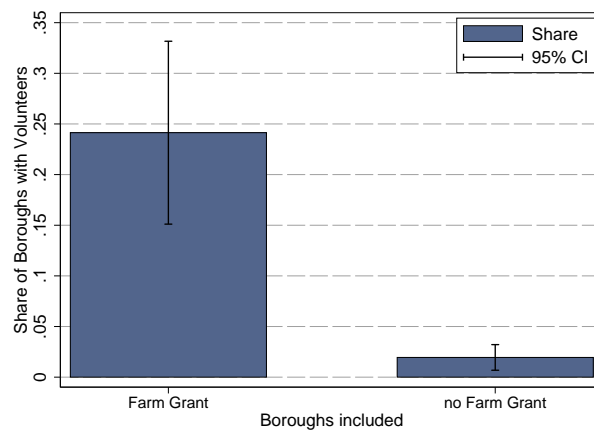


Figure 8: Voluntary Troops to Support Parliament during the Civil War in 1642

*Note:* The figure shows that boroughs with Farm Grants were significantly more likely to raise volunteer troops to support Parliament at the beginning of the Civil War in the summer of 1642. Data on volunteer troops are from Parliamentary records, as described in Appendix A.4.

## TABLES

Table 1: Balancedness of Geography and Wealth in Royal vs. Mesne Boroughs

| <u>Raw Data</u>   |                                 |       |                                 |       | <u>Values after Entropy Balancing<sup>‡</sup></u> |                            |                            |                                       |
|---|---------------------------------|-------|---------------------------------|-------|---|----------------------------|----------------------------|---------------------------------------|
| <i>Panel A: Trade-related geographic features of boroughs</i>           |                                 |       |                                 |       |   |                            |                            |                                       |
| boroughs with data:   | Royal Boroughs<br>(overall 145) |       | Mesne Boroughs<br>(overall 404) |       | p-value for<br>difference<br>in share             | Mean for<br>Royal Boroughs | Mean for<br>Mesne Boroughs | p-value for<br>difference<br>in share |
|   | #boroughs                       | share | #boroughs                       | share |   |                            |                            |                                       |
| Navigable River   | 45                              | 31.0% | 53                              | 13.1% | <0.001  | 31.0%                      | 30.8%                      | 0.96                                  |
| Sea Coast   | 30                              | 20.7% | 65                              | 16.1% | 0.231   | 20.7%                      | 20.6%                      | 0.98                                  |
| Roman Road  | 63                              | 43.4% | 115                             | 28.5% | 0.002   | 43.4%                      | 43.1%                      | 0.94                                  |
| <i>Panel B: Taxable wealth of boroughs in 1086 (Domesday book data)</i> |                                 |       |                                 |       |   |                            |                            |                                       |
| boroughs with data:   | Royal Boroughs<br>(overall 73)  |       | Mesne Boroughs<br>(overall 203) |       | p-value for<br>difference                         | Mean for<br>Royal Boroughs | Mean for<br>Mesne Boroughs | p-value for<br>difference             |
|   |                                 |       |                                 |       |   |                            |                            |                                       |
| ln(taxable wealth in 1086)  | 1.822                           |       | 1.482                           |       | 0.060   | 1.822                      | 1.822                      | 0.999                                 |

*Note:* The table examines the balancedness of trade-related geography and taxable wealth for royal boroughs vs. mesne boroughs. While royal boroughs were *relatively* more likely to be located on trade-favoring locations, the *overall* number of boroughs with trade-favoring features was larger in mesne territories. In addition, the table shows that Entropy weighting can create balanced samples also in relative terms.

<sup>‡</sup> Entropy balancing creates balanced samples by reweighing the observations in mesne boroughs to match the mean and variance of covariates in royal boroughs. In Panel A, these covariates are all three geographic variables jointly; in Panel B, taxable wealth only. See Hainmueller and Xu (2013) for details.

Table 2: Trade Geography and Economic Outcomes

| Dependent variable: As indicated in table header               |                         |                      |  |                    |                        |                     |
|--|-------------------------|----------------------|--|--------------------|------------------------|---------------------|
|  | (1)                     | (2)                  | (3)                                    | (4)                | (5)                    | (6)                 |
| Dependent Variable:  | ln(Taxable Wealth 1086) |                      | Commercial Importance 14C <sup>†</sup> |                    | ln(population mid-17C) |                     |
| Boroughs included:   | royal                   | mesne                | royal                                  | mesne              | royal                  | mesne               |
| Navigable River  | 0.946**<br>(0.362)      | 0.585**<br>(0.225)   | 0.982***<br>(0.270)                    | 0.203*<br>(0.109)  | 0.924***<br>(0.252)    | 0.473***<br>(0.134) |
| Roman Road   | 0.515*<br>(0.292)       | 0.216<br>(0.185)     | 0.354<br>(0.228)                       | 0.000<br>(0.059)   | 0.191<br>(0.193)       | 0.209**<br>(0.095)  |
| Sea Coast  | -0.208<br>(0.357)       | -0.945***<br>(0.250) | 0.759***<br>(0.287)                    | 0.238**<br>(0.099) | -0.076<br>(0.295)      | -0.116<br>(0.119)   |
| <i>p-value joint significance</i><br><i>River, Coast, Road</i> | [0.021]                 | [<0.001]             | [<0.001]                               | [0.019]            | [0.001]                | [<0.001]            |
| R <sup>2</sup>   | 0.15                    | 0.07                 | 0.15                                   | 0.04               | 0.14                   | 0.07                |
| Observations   | 73                      | 203                  | 145                                    | 404                | 126                    | 280                 |

*Notes:* This table shows that trade-favoring geography predicts various economic outcomes in *both* royal and mesne boroughs. This supports our use of mesne boroughs as a valid ‘placebo’ – mesne boroughs were otherwise comparable to royal boroughs, but they did not receive Farm Grants. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. See footnote 42 for an explanation for the negative coefficient on sea coast in cols 1 and 2.

<sup>†</sup> First principle component of two indicators for commercial importance: “Freedom from tolls” (a grant of liberty that exempted a borough’s burgesses from tolls throughout the realm) and an indicator variable for whether a borough was a commercial hub during the 14th century, based on Masschaele (1997).



Table 3: Farm Grants: The Role of Royal Boroughs and Taxable Wealth

Dependent variable: Indicator for boroughs that obtained Farm Grants by 1348

|                            | (1)                 | (2)                 | (3)                 | (4)  | (5)                 | (6)                    | (7)                      | (8)                 |
|----------------------------|---------------------|---------------------|---------------------|--|---------------------|------------------------|--------------------------|---------------------|
| Boroughs included          | — all boroughs —    |                     |                     | — boroughs with data in Domesday Book (1086) — |                     |                        |                          |                     |
| Note:                      | OLS                 | OLS                 | OLS                 | OLS  | OLS                 | E-weights <sup>‡</sup> | PS Matching <sup>†</sup> | OLS                 |
| Royal borough              | 0.450***<br>(0.043) | 0.439***<br>(0.043) | 0.448***<br>(0.045) | 0.458***<br>(0.061)                            | 0.437***<br>(0.060) | 0.451***<br>(0.060)    | 0.454***<br>0.065        | 0.294***<br>(0.091) |
| Soil suitability           |                     | 0.015<br>(0.013)    | 0.025<br>(0.016)    |  | 0.009<br>(0.022)    |                        |                          | 0.014<br>(0.022)    |
| Ruggedness                 |                     | -0.023**<br>(0.011) | -0.026**<br>(0.013) |  | -0.009<br>(0.016)   |                        |                          | -0.014<br>(0.016)   |
| ln(Taxable wealth in 1086) |                     |                     |                     |  | 0.042***<br>(0.015) | 0.059***<br>(0.021)    | [mv]                     | 0.017<br>(0.011)    |
| ln(Taxable wealth) x Royal |                     |                     |                     |  |                     |                        |                          | 0.081**<br>(0.039)  |
| Pre-Norman Kingdom FE      |                     | ✓                   |                     |  |                     |                        |                          |                     |
| p-value for kingdoms       |                     | [0.81]              |                     |  |                     |                        |                          |                     |
| County FE                  |                     |                     | ✓                   |  |                     |                        |                          |                     |
| R <sup>2</sup>             | 0.30                | 0.30                | 0.34                | 0.29   | 0.31                | 0.28                   |                          | 0.33                |
| Observations               | 549                 | 545                 | 547                 | 276  | 275                 | 276                    | 276                      | 275                 |
| Mean of dep. var.:         | 0.158               | 0.158               | 0.157               | 0.170  | 0.171               | 0.170                  | 0.170                    | 0.171               |

*Note:* The table shows that royal boroughs were significantly more likely to receive Farm Grants, and that this pattern is highly robust to adding control variables, including taxable wealth in 1086. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Regarding fixed effects (FE): There are 40 counties, and 4 pre-Norman kingdoms: Wessex, Mercia, Northumbria, and East-Anglia.

<sup>‡</sup> Entropy balancing reweights the observations in mesne boroughs to match the mean and variance of ln(Taxable Wealth) in royal boroughs. See Hainmueller and Xu (2013) for details.

<sup>†</sup> Propensity score matching with two nearest neighbors. Matching variable indicated by “mv.”

Table 4: Farm Grants: Geography-Based Proxies for Trade

Dependent variable: Indicator for boroughs that obtained Farm Grants by 1348

|                    | (1)                 | (2)                 | (3)                 | (4)                    | (5)                 | (6)                 | (7)                    |
|--------------------|---------------------|---------------------|---------------------|------------------------|---------------------|---------------------|------------------------|
| Boroughs included: | all                 | royal               | mesne               | mesne                  | all                 | all                 | all                    |
| Notes:             |                     |                     |                     | E-weights <sup>‡</sup> |                     |                     | E-weights <sup>‡</sup> |
| Navigable River    | 0.220***<br>(0.050) | 0.327***<br>(0.081) | 0.004<br>(0.027)    | 0.016<br>(0.031)       | 0.004<br>(0.028)    | 0.015<br>(0.036)    | 0.059<br>(0.046)       |
| Sea Coast          | 0.103**<br>(0.046)  | 0.343***<br>(0.091) | -0.037*<br>(0.019)  | -0.018<br>(0.027)      | -0.037*<br>(0.019)  | -0.051*<br>(0.027)  | -0.039<br>(0.038)      |
| Roman Road         | 0.059*<br>(0.034)   | 0.124<br>(0.078)    | -0.036**<br>(0.018) | -0.025<br>(0.020)      | -0.036**<br>(0.018) | -0.030<br>(0.022)   | -0.011<br>(0.030)      |
| River x Royal      |                     |                     |                     |                        | 0.323***<br>(0.085) | 0.334***<br>(0.091) | 0.336***<br>(0.094)    |
| Sea coast x Royal  |                     |                     |                     |                        | 0.380***<br>(0.093) | 0.357***<br>(0.098) | 0.305***<br>(0.101)    |
| Roman Road x Royal |                     |                     |                     |                        | 0.160**<br>(0.080)  | 0.190**<br>(0.082)  | 0.168**<br>(0.082)     |
| Royal borough      |                     |                     |                     |                        | 0.208***<br>(0.064) | 0.200***<br>(0.063) | 0.216***<br>(0.061)    |
| County FE          |                     |                     |                     |                        |                     | ✓                   | ✓                      |
| R <sup>2</sup>     | 0.07                | 0.17                | 0.01                | 0.01                   | 0.38                | 0.42                | 0.44                   |
| Observations       | 549                 | 145                 | 404                 | 404                    | 549                 | 549                 | 549                    |
| Mean of dep. var.: | 0.158               | 0.490               | 0.040               | 0.040                  | 0.158               | 0.158               | 0.158                  |

*Note:* The table shows that boroughs at locations that favored trade were more likely to receive Farm Grants. However, this relationship holds only for Royal boroughs. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>‡</sup> Entropy balancing reweights the observations in mesne boroughs to match the mean and variance of navigable river, sea coast, and Roman road in royal boroughs. See [Hainmueller and Xu \(2013\)](#) for details.

Table 5: Farm Grants and Representation in Parliament

Dependent variable: Indicator for borough enfranchised in Parliament by 1348

|  | (1)                 | (2)                 | (3)                 | (4)                | (5)                 | (6)                 | (7)                | (8)                    | (9)                 | (10)                |
|--|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|------------------------|---------------------|---------------------|
| Boroughs included:   | all                 | all                 | royal               | royal              | royal               | royal               | mesne              | mesne                  | all                 | all                 |
| Notes:   |                     |                     |                     |                    |                     | 2SLS <sup>#</sup>   |                    | E-weights <sup>§</sup> | 2SLS <sup>†</sup>   | 2SLS <sup>‡</sup>   |
| Farm Grant 1348  | 0.568***<br>(0.051) | 0.539***<br>(0.057) | 0.559***<br>(0.069) |                    | 0.559***<br>(0.076) | 0.560***<br>(0.174) |                    |                        | 0.757***<br>(0.072) | 0.564***<br>(0.187) |
| Navigable River  |                     |                     |                     | 0.209**<br>(0.086) | 0.026<br>(0.076)    |                     | -0.003<br>(0.050)  | -0.010<br>(0.047)      |                     | 0.006<br>(0.043)    |
| Sea Coast  |                     |                     |                     | 0.126<br>(0.103)   | -0.065<br>(0.083)   |                     | 0.006<br>(0.049)   | -0.003<br>(0.049)      |                     | -0.004<br>(0.041)   |
| Roman Road   |                     |                     |                     | 0.173**<br>(0.084) | 0.104<br>(0.074)    |                     | -0.059*<br>(0.035) | -0.077**<br>(0.036)    |                     | 0.004<br>(0.033)    |
| <i>p-value joint significance</i><br><i>River, Coast, Road</i> |                     |                     |                     | [0.014]            | [0.295]             |                     | [0.392]            | [0.151]                |                     | [0.997]             |
| Royal borough  |                     |                     |                     |                    |                     |                     |                    |                        |                     | 0.109<br>(0.095)    |
| County FE  |                     | ✓                   |                     |                    |                     |                     |                    |                        |                     |                     |
| Terrain Controls   |                     | ✓                   |                     |                    |                     |                     |                    |                        |                     |                     |
| R <sup>2</sup>   | 0.24                | 0.33                | 0.31                | 0.07               | 0.33                |                     | 0.01               | 0.01                   |                     |                     |
| Observations   | 549                 | 547                 | 145                 | 145                | 145                 | 145                 | 404                | 404                    | 549                 | 549                 |
| Mean of dep. var.:   | 0.235               | 0.234               | 0.503               | 0.503              | 0.503               | 0.503               | 0.139              | 0.139                  | 0.235               | 0.235               |
| First stage F-stat.:   |                     |                     |                     |                    |                     | 12.0                |                    |                        | 29.9                | 12.0                |

Note: The table shows that boroughs with Farm Grants were significantly more likely to have seats in Parliament by 1348. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Terrain controls include soil quality as well as ruggedness in a 10 km radius around each borough.

<sup>#</sup> Two-stage least square regression that uses location on a navigable river, the sea coast, and on a Roman road to predict farm grants by 1348 in the first stage.

<sup>§</sup> Entropy balancing reweights the observations in mesne boroughs to match the mean and variance of navigable river, sea coast, and Roman road in royal boroughs. See Hainmueller and Xu (2013) for details.

<sup>†</sup> Two-stage least square regression that uses the following variables to predict farm grants by 1348 in the first stage: location on the sea coast, on a navigable river, and on Roman roads, and the interaction of these three variables with status as royal borough, as well as the status as royal borough itself.

<sup>‡</sup> Two-stage least square regression that uses only the three interaction terms and controls for the variables in levels.

Table 6: Farm Grants and Influence of the King on Boroughs' Local Institutions

Dep. Var.: Dummy for strong influence of the king on appointment of local officials

|  | (1)                 | (2)                 | (3)                 | (4)                  | (5)                  | (6)                 | (7)                    | (8)               | (9)               |
|--|---------------------|---------------------|---------------------|----------------------|----------------------|---------------------|------------------------|-------------------|-------------------|
|  |                     |                     |                     |                      |                      |                     | — Reduced Form —       |                   |                   |
| Boroughs included:   | all                 | all                 | all                 | royal                | royal                | royal               | royal                  | mesne             | mesne             |
| Note:  | 2SLS <sup>†</sup>   |                     |                     | 2SLS <sup>‡</sup>    |                      |                     | E-weights <sup>§</sup> |                   |                   |
| Farm Grant 1348  | -0.221**<br>(0.102) | -0.280**<br>(0.126) | -0.492**<br>(0.216) | -0.337***<br>(0.119) | -0.489***<br>(0.157) | -0.567**<br>(0.221) |                        |                   |                   |
| Royal borough  | 0.114<br>(0.101)    | 0.164<br>(0.130)    | 0.264*<br>(0.156)   |                      |                      |                     |                        |                   |                   |
| Navigable River  |                     |                     |                     |                      |                      |                     | -0.285***<br>(0.107)   | -0.049<br>(0.150) | -0.072<br>(0.154) |
| Sea Coast  |                     |                     |                     |                      |                      |                     | -0.174<br>(0.117)      | -0.136<br>(0.131) | -0.116<br>(0.148) |
| Roman Road   |                     |                     |                     |                      |                      |                     | 0.077<br>(0.111)       | -0.019<br>(0.144) | -0.015<br>(0.159) |
| <i>p-value joint significance</i><br><i>River, Coast, Road</i> |                     |                     |                     |                      |                      |                     | [0.007]                | [0.734]           | [0.807]           |
| County FE  |                     | ✓                   |                     |                      | ✓                    |                     |                        |                   |                   |
| Terrain Controls   |                     | ✓                   |                     |                      | ✓                    |                     |                        |                   |                   |
| R <sup>2</sup>   | 0.03                | 0.28                |                     | 0.10                 | 0.59                 |                     | 0.11                   | 0.02              | 0.02              |
| Observations   | 158                 | 157                 | 157                 | 77                   | 76                   | 77                  | 77                     | 81                | 81                |
| Mean of dep. var.:   | 0.424               | 0.427               | 0.420               | 0.416                | 0.421                | 0.416               | 0.416                  | 0.432             | 0.432             |
| First stage F-stat.:   |                     |                     | 6.0                 |                      |                      | 9.7                 |                        |                   |                   |

*Note:* This table shows that after being incorporated (in the 15th-17th century), chartered boroughs (as compared to unchartered boroughs) saw significantly less influence of the king on the appointment of local public officials. Influence of the king is a dummy variable that takes on value one if, at the time of incorporation of a borough, the following two conditions held: i) *First appointment*: the king appointed the first members of the newly formed corporation's governing body (mayor, aldermen, and councilmen), and ii) *Co-Optation*: the initial council appointed subsequent council members – a process that maintained closed governing bodies. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Terrain controls include soil quality as well as ruggedness in a 10 km radius around each borough.

<sup>†</sup> Two-stage least square regressions that use the following variables to predict farm grants by 1348 in the first stage: location on the sea coast, on a navigable river, and on Roman roads, and the interaction of these three variables with status as royal borough. Since the dependent variable reflects royal influence, the status as royal borough is included as a control.

<sup>‡</sup> Two-stage least square regression using location on the sea coast, on a navigable river, and on Roman roads to predict farm grants by 1348.

<sup>§</sup> Entropy balancing reweights the observations in mesne boroughs to match the mean and variance of navigable river, sea coast, and Roman road in royal boroughs. See Hainmueller and Xu (2013) for details.

Table 7: Inclusiveness of MP Elections at the Borough Level in the 1820s

Dependent variables: Various indicators for inclusiveness of MP elections at the borough level in the 1820-31

|                                  | (1)                 | (2)                 | (3)                 | (4)                 | (5)  | (6)                 | (7)                 | (8)                 | (9)                 |
|----------------------------------|---------------------|---------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|---------------------|
| Dependent Variable:              | Openness Index      | Contested Elections | Broad franchise     | Patronage index     | — First Principal Component of (1) – (4) — |                     |                     |                     |                     |
| Notes:                           |                     |                     |                     |                     | royal only                                 |                     |                     | 2SLS#               |                     |
| Farm Grant 1348                  | 0.407***<br>(0.113) | 0.617***<br>(0.208) | 0.180***<br>(0.066) | 0.432***<br>(0.100) | 0.664***<br>(0.150)                        | 0.635***<br>(0.148) | 0.741***<br>(0.196) | 0.514***<br>(0.172) | 0.840***<br>(0.209) |
| Additional Controls <sup>†</sup> |                     |                     |                     |                     |  | ✓                   | ✓                   | ✓                   | ✓                   |
| County FE                        |                     |                     |                     |                     |  |                     |                     | ✓                   |                     |
| Terrain Controls                 |                     |                     |                     |                     |  |                     |                     | ✓                   |                     |
| R <sup>2</sup>                   | 0.08                | 0.05                | 0.03                | 0.09                | 0.10                                       | 0.17                | 0.24                | 0.41                |                     |
| Observations                     | 186                 | 187                 | 187                 | 187                 | 186  | 186                 | 83                  | 184                 | 174                 |
| Mean of dep. var.:               | 1.53                | 1.34                | 0.69                | 0.92                | — [Principal Component: Mean 0, Std 1] —   |                     |                     |                     |                     |
| First stage F-stat.:             |                     |                     |                     |                     |  |                     |                     |                     | 59.1                |

*Note:* This table shows that medieval Farm Grants are a strong predictor of more inclusive borough-level elections of members of Parliament in the 1820s. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Terrain controls include soil quality as well as ruggedness in a 10 km radius around each borough.

<sup>‡</sup> Additional controls include the following variables constructed by [Aidt and Franck \(2015\)](#): market integration (travel distance between any given constituency and the 243 other constituencies weighted by the population); Distance to urban center (travel days from each constituency to the nearest of the 13 largest towns in 1831); Connection to London (graphical, economic, and informational connections to London); a dummy for 13 boroughs controlled by the treasury.

Table 8: Support for Parliamentarians during the Civil War

Dependent variable: Indicator for pro-Parliamentary volunteer troops raised by borough in 1642

|  | (1)                 | (2)                 | (3)                 | (4)                 | (5)                                    | (6)                 | (7)   | (8)              | (9)                    |
|--|---------------------|---------------------|---------------------|---------------------|--|---------------------|---|------------------|------------------------|
| Boroughs included:   | all                 | all                 | all                 | royal               | Enfranchised by 1640<br>all      royal |                     | — Reduced Form —<br>royal    mesne    mesne |                  |                        |
| Notes:   |                     |                     | 2SLS <sup>†</sup>   |                     |  |                     |   |                  | E-weights <sup>‡</sup> |
| Farm Grant 1348  | 0.209***<br>(0.046) | 0.192***<br>(0.043) | 0.276***<br>(0.069) | 0.254***<br>(0.055) | 0.233***<br>(0.065)                    | 0.256***<br>(0.068) |   |                  |                        |
| Royal borough  | 0.019<br>(0.022)    | 0.011<br>(0.024)    |                     |                     | -0.023<br>(0.053)                      |                     |   |                  |                        |
| Navigable River  |                     |                     |                     |                     |  |                     | 0.158**<br>(0.069)                          | 0.012<br>(0.026) | 0.011<br>(0.026)       |
| Sea Coast  |                     |                     |                     |                     |  |                     | 0.044<br>(0.067)                            | 0.026<br>(0.026) | 0.046<br>(0.036)       |
| Roman Road   |                     |                     |                     |                     |  |                     | 0.187***<br>(0.063)                         | 0.005<br>(0.017) | -0.008<br>(0.017)      |
| <i>p-value joint significance</i><br><i>River, Coast, Road</i> |                     |                     |                     |                     |  |                     | [0.002]                                     | [0.750]          | [0.352]                |
| County FE  |                     | ✓                   |                     |                     |  |                     |   |                  |                        |
| Terrain Controls   |                     | ✓                   |                     |                     |  |                     |   |                  |                        |
| R <sup>2</sup>   | 0.13                | 0.23                |                     | 0.14                | 0.09                                   | 0.09                | 0.11  | 0.00             | 0.02                   |
| Observations   | 548                 | 546                 | 548                 | 145                 | 189                                    | 91                  | 145   | 403              | 403                    |
| Mean of dep. var.:   | 0.055               | 0.053               | 0.055               | 0.138               | 0.148                                  | 0.209               | 0.138                                       | 0.025            | 0.025                  |
| First stage F-stat.:   |                     |                     |                     |                     | 61.9                                   |                     |   |                  |                        |

*Note:* The table shows that boroughs with Farm Grants were significantly more likely to raise pro-Parliamentary volunteer troops at the beginning of the Civil War in 1642. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Terrain controls include soil quality as well as ruggedness in a 10 km radius around each borough.

<sup>†</sup> Two-stage least square regressions that use the following variables to predict Farm Grants by 1348 in the first stage: location on the sea coast, on a navigable river, and on Roman roads, and the interaction of these three variables with status as royal borough, as well as the status as royal borough itself.

<sup>‡</sup> Entropy balancing reweights the observations in mesne boroughs to match the mean and variance of navigable river, sea coast, and Roman road in royal boroughs. See Hainmueller and Xu (2013) for details.



Table 9: MP Votes Supporting the Great Reform Act

Dependent variables: Share of votes in favor of the Reform Act at different points in 1831

|                                  | (1)                  | (2)                  | (3)                  | (4)                 | (5)                  | (6)                  | (7)                  |
|----------------------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|
| Vote in:                         | March 1831           |                      |                      | — December 1831 —   |                      |                      |                      |
| Notes:                           |                      |                      |                      | royal only          |                      | 2SLS#                | 2SLS#                |
| Farm Grant 1348                  | 0.051<br>(0.063)     | 0.177***<br>(0.067)  | 0.140***<br>(0.050)  | 0.196***<br>(0.072) | 0.144**<br>(0.056)   | 0.219**<br>(0.098)   | 0.131*<br>(0.074)    |
| Disenfranchise                   | -0.263***<br>(0.060) | -0.351***<br>(0.068) | -0.208***<br>(0.054) | -0.200**<br>(0.077) | -0.213***<br>(0.069) | -0.328***<br>(0.071) | -0.182***<br>(0.058) |
| March 1831 votes                 |                      |                      | 0.727***<br>(0.056)  | 0.656***<br>(0.087) | 0.740***<br>(0.074)  |                      | 0.759***<br>(0.063)  |
| Swing Riot within 10km           |                      |                      | 0.083<br>(0.051)     | 0.173**<br>(0.072)  | 0.059<br>(0.109)     |                      | 0.115<br>(0.093)     |
| County FE                        |                      |                      |                      |                     | ✓                    |                      | ✓                    |
| Additional Controls <sup>†</sup> |                      |                      |                      |                     | ✓                    |                      | ✓                    |
| R <sup>2</sup>                   | 0.11                 | 0.20                 | 0.60                 | 0.63                | 0.66                 | 0.19                 | 0.68                 |
| Observations                     | 184                  | 178                  | 177                  | 81                  | 177                  | 168                  | 167                  |
| Mean of dep. var.:               | 0.46                 | 0.56                 | 0.55                 | 0.68                | 0.55                 | 0.57                 | 0.56                 |
| First stage F-stat.:             |                      |                      |                      |                     |                      | 53.2                 | 26.5                 |

*Note:* This table shows that medieval Farm Grants are a strong predictor of voting behavior of MPs in favor of the Great Reform Act in the decisive vote of December 1831. The earlier vote in March 1831 serves as a placebo, as explained in the text. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

<sup>†</sup> Additional controls include the following variables constructed by [Aidt and Franck \(2015\)](#): market integration (travel distance between any given constituency and the 243 other constituencies weighted by the population); Distance to urban center (travel days from each constituency to the nearest of the 13 largest towns in 1831); Connection to London (graphical, economic, and informational connections to London); a dummy for 13 boroughs controlled by the treasury.

<sup>#</sup> Two-stage least square regressions that use the following variables to predict farm grants by 1348 in the first stage: location on the sea coast, on a navigable river, and on Roman roads, and the interaction of these three variables with status as royal borough, as well as the status as royal borough itself.

Table 10: Obstructions of Trade after Farm Grants

| Dependent variable as indicated in table header       |   |                                   |                                      |   |   |
|---|---|-----------------------------------|--------------------------------------|---|---|
|   | (1)   | (2)                               | (3)                                  | (4)   | (5)                                     |
|   | Plausibility Checks                         |                                   | Long-run institutional outcomes      |   |   |
| Dependent variable:                                   | Commercial Im-<br>portance 14C <sup>†</sup> | Trade employment<br>share in 1831 | Volunteer troops<br>during Civil War | Inclusiveness of MP<br>elections 1820-31 <sup>‡</sup> | Vote share for Great<br>Reform Act 1832 |
| Farm Grant, no<br>obstruction                         | 1.621***<br>(0.189)                         | 0.078***<br>(0.021)               | 0.238***<br>(0.053)                  | 0.723***<br>(0.171)                                   | 0.165**<br>(0.071)                      |
| Farm Grant, trade<br>obstructed                       | 1.476***<br>(0.297)                         | 0.009<br>(0.034)                  | 0.168*<br>(0.098)                    | 0.456**<br>(0.210)                                    | 0.219*<br>(0.115)                       |
| <i>p-value: test for<br/>equality of coefficients</i> | <i>[0.679]</i>                              | <i>[0.059]</i>                    | <i>[0.531]</i>                       | <i>[0.275]</i>  | <i>[0.644]</i>                          |
| R <sup>2</sup>  | 0.34  | 0.07                              | 0.13                                 | 0.10  | 0.20                                    |
| Observations  | 549   | 203                               | 547                                  | 186   | 178                                     |
| Mean of dep. var.:                                    | [s.d.=1] <sup>†</sup>                       | 0.387                             | 0.055                                | [s.d.=1] <sup>‡</sup>                                 | 0.556                                   |

*Note:* The table provides suggestive evidence that Farm Grants led to more inclusive institutions in the long run, even if trade was obstructed (after chartered boroughs received Farm Grants) by exogenous events such as silting of rivers and harbors, or the construction of watermills up/downstream that hampered transport. The dependent variable in column 2 – the share of employment in trade-related professions – is from the 1831 census, and has been collected for enfranchised boroughs by [Aidt and Franck \(2015\)](#). Column 5 also controls for disenfranchisement of boroughs (as in Table 9). Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>†</sup> First principle component of two indicators for commercial importance: “Freedom from tolls” (a grant of liberty that exempted a borough’s burgesses from tolls throughout the realm) and an indicator variable for whether a borough was a commercial hub during the 14th century, based on [Masschaele \(1997\)](#). The variable has mean zero and standard deviation 1.

<sup>‡</sup> First principle component of the four proxies for open MP elections used in Table 7. The variable has mean zero and standard deviation 1.