

# Online Appendix

## How Merchant Towns Shaped Parliaments: From the Norman Conquest of England to the Great Reform Act

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### A Case Study – A Tale of Two Towns

In this appendix, we complement our discussion in Sections 5 and 6 in the paper with two case studies – a royal and a mesne town, of similar trade geography and size in 1066. We discuss the evolution of their local institutions over the period between the Norman Conquest and the Great Reform Act.

#### A.1 Bridport – A Royal Town

We begin by describing the institutional history of Bridport – a settlement in Dorset that was in existence at the time of the Norman Conquest.<sup>1</sup> The Domesday Book (1086) recorded Bridport as a royal settlement, with taxable wealth equal to 6.4 fiscal units (geld).<sup>2</sup> Its geographical position – along the rivers Bride and Ahser, and ca. one mile distant from the Dorset coast – was conducive to trade, as reflected by the presence of a market in the 11th century. By the beginning of the 13th century, Bridport was experiencing a surge in trade and population.<sup>3</sup> In this period, Bridport also obtained municipal autonomy. In 1228, the community paid the king ten marks to acquire the right to collect the yearly farm and elect local officials (i.e., a Farm Grant). In 1253, it paid thirty marks to have these liberties granted in perpetuity.<sup>4</sup> Elections of borough officials (e.g., bailiffs) were held annually at Michaelmas (a Christian festival on September 29th).<sup>5</sup>

In the 14th century, Bridport was active in trade, especially with London, Southampton, and Portsmouth. A new harbor contributed to the expansion of commercial activity.<sup>6</sup> Bridport's Farm Grant of 1253 was repeatedly confirmed until, in 1619, the town bought a Charter of Incorporation for £150 at the request of Robert Millar – a feltmaker. The Charter conferred to the king the right

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<sup>1</sup>Our main sources are the entries for Bridport in the *History of Parliament*. These are available for various periods, beginning in 1386 (which also includes earlier information), and ending in 1832. All subperiods can be accessed here: <https://historyofparliamentonline.org/volume/1386-1421/constituencies/bridport>. Whenever we use additional sources, we cite these in footnotes.

<sup>2</sup><http://opendomesday.org>

<sup>3</sup><https://dorset-ancestors.com/?p=167>

<sup>4</sup>In 1953, Bridport celebrated the 700th anniversary of the 1253's Charter of Liberties (<https://dorset-ancestors.com/?p=167>).

<sup>5</sup>See the Fine Rolls of Henry III (<https://finerollshenry3.org.uk/index.html>) and Ballard and Tait (1923).

<sup>6</sup><https://dorset-ancestors.com/?p=167>

of *first appointment* of the capital burgesses (Weinbaum, 1943). The administration continued to be in the hands of fifteen capital burgesses, who chose two bailiffs and renewed themselves by cooptation.

Bridport was represented in the Model Parliament (1295). In the 14th and 15th centuries, Members of Parliament (MPs) were largely drawn from local traders and manufacturers. Over the 16th century, the high steward, the Admiralty, and several large landowners residing nearby, began to exercise influence over MP elections. At the beginning of the 17th century, the body of fifteen capital burgesses fully controlled parliamentary elections. This state of affairs was short-lived. In 1628, the commonalty petitioned the Commons, who re-established the broad parliamentary franchise based on the evidence that burgesses at large had participated in past elections. Bridport actively supported the Parliamentarians during the Civil War, by providing volunteer troops.<sup>7</sup>

During the 18th century, and up until the Great Reform Act, the franchise was vested in the ‘inhabitant householders paying scot and lot,’ who numbered approximately 250 to 350, relative to a population of 3,117 in 1801. Parliamentary elections were open to contests: Local merchants trading with the West Indies were among the main contestants, alongside the local gentry. The issues of anti-slavery, malt duties, and Catholic emancipation were central during the August 1830 general election. The radical Whig Henry Wharburton (a timber merchant) and Sir St. Paul (a soldier) were elected. Shortly after the 1830 election, parliamentary reform became paramount. Bridport’s inhabitants petitioned the Commons in favor of reform in November 1830. The members of the corporation – mainly merchants and manufacturers – also supported the Grey ministry’s Reform Bill of March 1831, despite the fact that Bridport was scheduled for partial disenfranchisement (Schedule B). Only Wharburton voted in favor of the March 1831 bill. Both MPs ran and were re-elected at the following general election made necessary by the defeat of the Reform Bill. The partial disenfranchisement of the borough met with opposition among the inhabitants.<sup>8</sup> Eventually, Bridport was excluded from the list of partially disenfranchised boroughs. Wharburton voted in favor of the December 1831 bill. The reform resulted in an increase in the number of electors, from ca. 300 to 400.

## **A.2 Faversham – A Mesne Town**

Faversham is a borough in the county of Kent that was in existence at the time of the Norman Conquest.<sup>9</sup> Faversham was initially a royal settlement, as recorded in the Domesday Book (1086). In c. 1135, Faversham became mesne when it was granted to the Earl of Kent for his military service against the empress Maud. In c. 1148, Faversham was granted ‘in perpetual alms’ by the

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<sup>7</sup>See the sources listed in Appendix B.12.

<sup>8</sup>A petition against disenfranchisement was supported by St. Paul. Also, the Bridport freeholders lent some support to the anti-reform candidate in the county elections.

<sup>9</sup>See Beresford and Finberg (1973). Most of the information reported in this account can be found in the British History Online (<https://www.british-history.ac.uk/survey-kent/vol6/pp318-371>).

king (in accordance with the Earl) to the newly founded abbey.<sup>10</sup> After being granted to the abbey, Faversham was subject to the jurisdiction of the abbot in matters concerning the local administration. Faversham offers an ideal comparison to Bridport, because both had a similar starting point – including being initially royal. Faversham’s taxable wealth was assessed as 7 fiscal units (geld) in the Domesday Book (as compared to 6.4 for Bridport).<sup>11</sup> Both towns also had a very similar geography: Faversham’s position on the navigable Swale creek and close to the Kentish coast was conducive to trade, as reflected by the early establishment of a market and a fair, and by it obtaining a grant of ‘freedom from tolls throughout the realm’ in 1252 (Ballard and Tait, 1923; Letters, Fernandes, Keene, and Myhill, 2003).

Since the 1250s, the community of burgesses was headed by a mayor and twelve jurats. The abbot – the borough’s mesne lord – interfered heavily with the local administration. He appointed a steward and exacted various sums from burgesses (e.g., for exposing merchandize in the market). The mayor was chosen by the abbot from a list of three candidates proposed by the burgesses. The community of burgesses did not obtain a Farm Grant. This state of affairs generated frequent disputes, which often required the intervention of the king’s officials to re-establish the abbot’s rights (Ballard and Tait, 1923). Faversham had an important military role, being part of the confederation of the Cinque Ports since 1229. As a member of the Head Port of Dover, it sent one ship for royal naval service during wars.<sup>12</sup> Several royal charters granted Faversham most of the privileges enjoyed by the Liberty of the Cinque Ports, such as exemption from hundred and shire courts.<sup>13</sup>

Faversham was not represented in Parliament, arguably because of its lack of administrative autonomy. At the dissolution of the abbey in 1538, the borough reverted to the Crown. Royal ownership finally paved the way for (some) municipal autonomy of this important trade community. In 1546, Henry VIII granted the burgesses a Charter of Incorporation and a Farm Grant. The corporation was composed of a mayor, 12 jurats, and 44 freemen. However, Faversham’s degree of autonomy was limited – arguably due to the long history of mesne ownership and the late attainment of a Farm Grant.<sup>14</sup> The Charter of 1546 conferred to the king the right of *first appointment* of town magistrates, i.e., mayor and jurats (Weinbaum, 1943), and the Lord Warden’s influence over the town’s internal affairs remained strong (Murray, 1935, p. 95). During the Civil War, Faversham

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<sup>10</sup>Thus, Faversham is one of the 76 boroughs that changed ownership, as discussed in Section B.3. Since Faversham was mesne for 213 out of 262 years between 1086-1348, it is one of the 17 mixed boroughs that were “mainly mesne,” i.e., those with mixed ownership that belonged to a mesne lord for more than 75% of the time period (see footnote 17 in the appendix).

<sup>11</sup><http://opendomesday.org>.

<sup>12</sup>Because of their military importance, the inhabitants of towns belonging to the Cinque Ports were sometimes referred to as ‘barons’ (Tait, 1936, p. 260).

<sup>13</sup>In matters concerning the Cinque Ports, Faversham was subject to the jurisdiction of the *court of Shepway* presided by the Lord Warden, a royal official (Ballard and Tait, 1923).

<sup>14</sup>Only three other boroughs obtained Farm Grants in the 16th century, when the importance of the boroughs’ farms relative to other taxes began to decline significantly (Webb and Webb, 1963, p. 287).

did not provide volunteer troops in support of the Parliamentarians. Faversham did not vote during the Great Reform Act, because it was not a parliamentary constituency.

## **B Data and Background**

### **B.1 Background: Misconduct of Tax-Collecting 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 during 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). The flood of complaints triggered numerous formal 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).

Attempts to Curtail Misconduct of Officials. 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. 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 1212-3, John summoned knights of the shire – local notables elected by 40 shilling freeholders within each county – 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 *tourns* through

his shire per year.<sup>15</sup> In the 1240s-50s, Henry III attempted to increase the minimum price at which a shire could be farmed. This led to an explosion of complaints about officials' misbehavior and eventually to reforms in 1258-9 (Carpenter, 1976). At the same time, the various attempts to fix the system (e.g., appointing salaried local gentry as sheriffs) proved largely ineffective.

## B.2 Timing: Farm Grants and Wars

Starting with Lincoln in 1130, Farm Grants were issued to boroughs throughout England. Figure A.1 presents the timing of royal and mesne Farm Grants for the period 1130-1348. Although Farm Grants were issued in almost every decade, kings John and Henry III stand out as the most active grantors. Figure A.1 also highlights England's wars with France: Periods of war often coincided with the granting of numerous Farm Grants to royal towns, presumably because of the greater need for financing. As explained in Section 3.4, Farm Grants typically included a one-time up-front payment (*fine*) in addition to the higher annual lump sum (*increment*). Thus, issuing Farm Grants could raise substantial revenues in a short time. Figure A.1 also illustrates that Farm Grants were much less common in mesne boroughs, as discussed in Section 3.5.

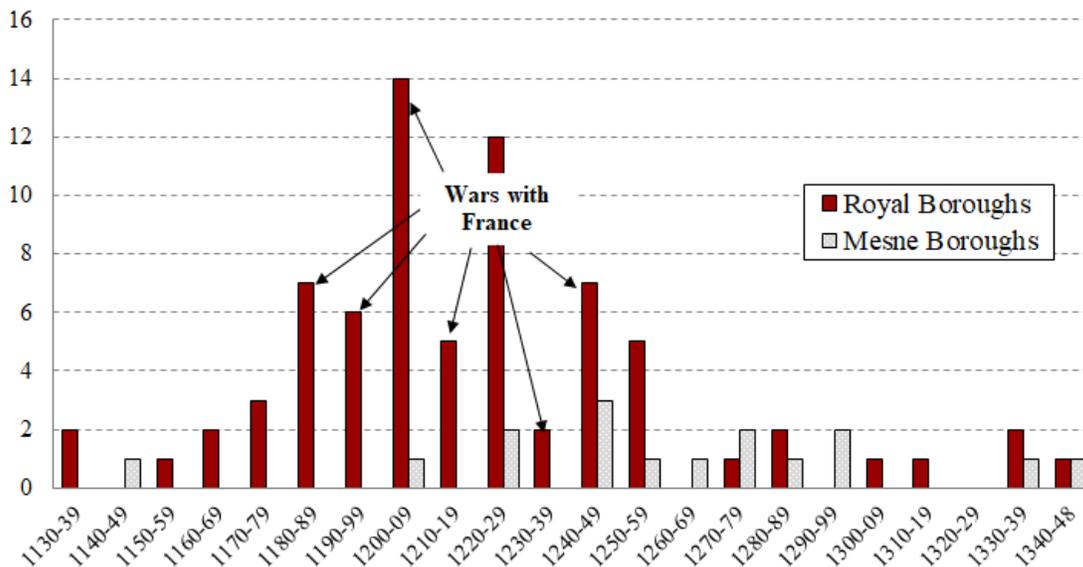


Figure A.1: Timeline of Farm Grants for Royal and Mesne Boroughs

*Note:* The figure illustrates the timing of all Farm Grants that were issued before 1348 – overall 74 to royal boroughs and 16 to mesne boroughs. Farm Grants were often granted during periods of external wars, when the king was in need of finance.

<sup>15</sup>The *tourn* 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.

### B.3 Classification of Borough Ownership

For our analysis, we focus on locations that became boroughs prior to the Black Death in 1348 and existed at least until this year.<sup>16</sup> We classify boroughs according to their ownership as *mainly royal*, *mainly mesne*, and *mixed*. For each borough, we compute the years since its foundation until 1348. We also calculate the time spent as part of the royal or mesne lords' demesne between foundation and 1348. For this, we use the following criteria: Boroughs that belonged to the king for at least 75% of the period between their foundation and 1348 are classified as *mainly royal*. Those boroughs that belonged to mesne lords for more than 75% of the time are counted as *mainly mesne*. According to these criteria, 91 boroughs were *mainly royal*, and 386 were *mainly mesne*. An additional 54 *mixed* boroughs belonged to both the king and a mesne lord for a non-negligible part of the period 1086-1348 (i.e., more than 25% to each).<sup>17</sup> Because even relatively short ownership by the king was sufficient for charters of liberties to be granted, we include these *mixed* boroughs under "royal" in our main analysis.<sup>18</sup> This yields a total of 145 (91+54) royal boroughs for the purpose of our main analysis. Finally, there are 23 boroughs that were founded before 1348, but for which systematic information of ownership is not available for the full period prior to 1348. In the vast majority of cases, the scattered information at our disposal points to the presence of a mesne lord. We thus classify these boroughs as *mainly mesne*. Altogether, we thus count 409 (386+23) mesne boroughs that were founded before 1348. In Appendix C.1, we show that our results are robust to a more conservative definition of royal ownership, based on a 90% threshold and excluding mixed boroughs and those without systematic documents on ownership.

*Number of Boroughs pre- and post-1348.* Altogether, there are 554 boroughs with documented

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<sup>16</sup>We exclude boroughs that were founded after 1348. Similarly, we exclude locations (e.g., villages) with documented existence before 1348 that had not received the status of borough by 1348. The reason for excluding these is that non-borough settlements were largely rural and much less involved in trade; with very few exceptions, these did not receive Farm Grants or were enfranchised in Parliament. Thus, including them would bias the relationship between Farm Grants and enfranchisement upward. Finally, we exclude boroughs that disappeared before 1348 – these were all very small settlements that got borough status for idiosyncratic reasons. None of these received a Farm Grant or were enfranchised, so that excluding them represents a conservative choice, making it less likely to find a systematic relationship between Farm Grants and representation in Parliament.

<sup>17</sup>Changes in ownership were typically due to inheritance issues and are thus unlikely to be related to our analysis in a systematic fashion. During the period 1086-1348, altogether 77 boroughs changed ownership from the king to a mesne lord, or viceversa. Among these, 12 (17) belonged to the king (mesne lords) for more than 75% of the time and are thus included in the 91 *mainly royal* (386 *mainly mesne*) boroughs. This leaves 77-12-17=48 boroughs that belonged more than 25% of the period 1086-1348 to each the king and mesne lords. These are classified as *mixed*. During the same period, further 6 boroughs belonged jointly to the king and a mesne lord; we classify these 6 also as *mixed* ownership (i.e., at 50% each). Thus, 48+6=54 boroughs are classified as *mixed*.

<sup>18</sup>Among the boroughs that changed ownership, there were instances of new Farm Grants being issued by the king immediately after previous mesne boroughs became royal. For example, Chester became royal in ca. 1237 and received a Farm Grant in 1239. There are also instances of charters being revoked after a switch from royal to mesne. For example, Liverpool and Newcastle-under-Lyme lost their liberties when they became mesne boroughs in about 1266 and 1292, respectively (Ballard and Tait, 1923, p. lvi). By contrast, there are no recorded instances of charters being revoked when boroughs became royal, and also no instances of new charters being granted in the first few years following the change in ownership from royal to mesne.

existence prior to 1348. For our analysis of long-run outcomes in the 17th-19th centuries, the sample reduces to 550 boroughs because one borough disappeared,<sup>19</sup> two were bought by larger boroughs after the Dissolution of Monasteries in the 16th century,<sup>20</sup> and two boroughs (Weymouth and Melcombe) were merged into one (“Weymouth and Melcombe Regis”) for parliamentary purposes. Between 1348 and 1700, 71 boroughs were newly formed. Thus, the total number of boroughs in 1700 is 621 (550+71). We use this full set of boroughs only in Figure A.3 in the paper for a complete illustration of enfranchisement after 1348. Otherwise, we only use boroughs that existed in 1348.

*Index of Borough Ownership.* We also create an *index of ownership* that exploits the official standing of lords (e.g., earls and bishops) as an indicator for the size of the territory they own. We assign (i) 4 points to boroughs belonging to the king, queen, or prince (royal boroughs), (ii) 3 points to boroughs belonging to earls or archbishops,<sup>21</sup> (iii) 2 points to boroughs belonging to bishops and (iv) 1 point to boroughs belonging to either seigneurs (lesser barons) or abbots/nunneries.<sup>22</sup> According to this index, there are 145 royal boroughs, and the remaining 409 mesne boroughs that existed by 1348 are divided as follows: 108 with size=3 (earls or archbishops), 72 with size=2 (mostly owned by bishops), and 229 with size=1 (seigneur/abbot/nunnery). These are the size categories underlying Figure 3 in the paper.

#### **B.4 Location of Boroughs with Farm Grants by 1348**

Figure A.2 shows the location of boroughs that had received Farm Grants by 1348. There is no apparent clustering – Farm Grant boroughs are spread relatively evenly across England.

#### **B.5 Taxable Wealth in 1086**

In 1086, the Normans assessed and recorded the taxable wealth of rural and urban settlements in the Domesday Book.<sup>23</sup> Taxable wealth was assessed in (fiscal) hides, which historically had reflected land area but, by 1086, had evolved into a broader measure of taxable worth of a settlement that had no fixed relationship to its area or its population (Faith, 1999, p. 91). An open source for the Domesday Book is available at <http://opendomesday.org>. For each settlement, this source reports taxable wealth in the variable called “Total tax assessment.” The units of measurement of this variable can vary across boroughs. In the vast majority (ca. 80%) of cases, the unit of measurement is called “geld units.” In the remaining ca. 20% of cases, the units are referred to as “exemption units” (in less than 1% of cases they are named “unchanged units”). To the best of our

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<sup>19</sup>Ravensrodd was destroyed by the sea in ca. 1366.

<sup>20</sup>Bootham was bought by York, and Templemead was bought by Bristol in ca. 1550.

<sup>21</sup>We have evidence that even after the Norman Conquest, earls were the greatest barons (Brooke, 1961, pp. 103-05).

<sup>22</sup>For boroughs that changed ownership between their date of foundation and 1348, we use the criteria described above to define royal boroughs. When boroughs changed hands between different types of mesne lords, we assign them the average number of points on the ownership index and then round to the nearest integer.

<sup>23</sup>See footnote 10 in the paper for more detail on the Domesday Book.

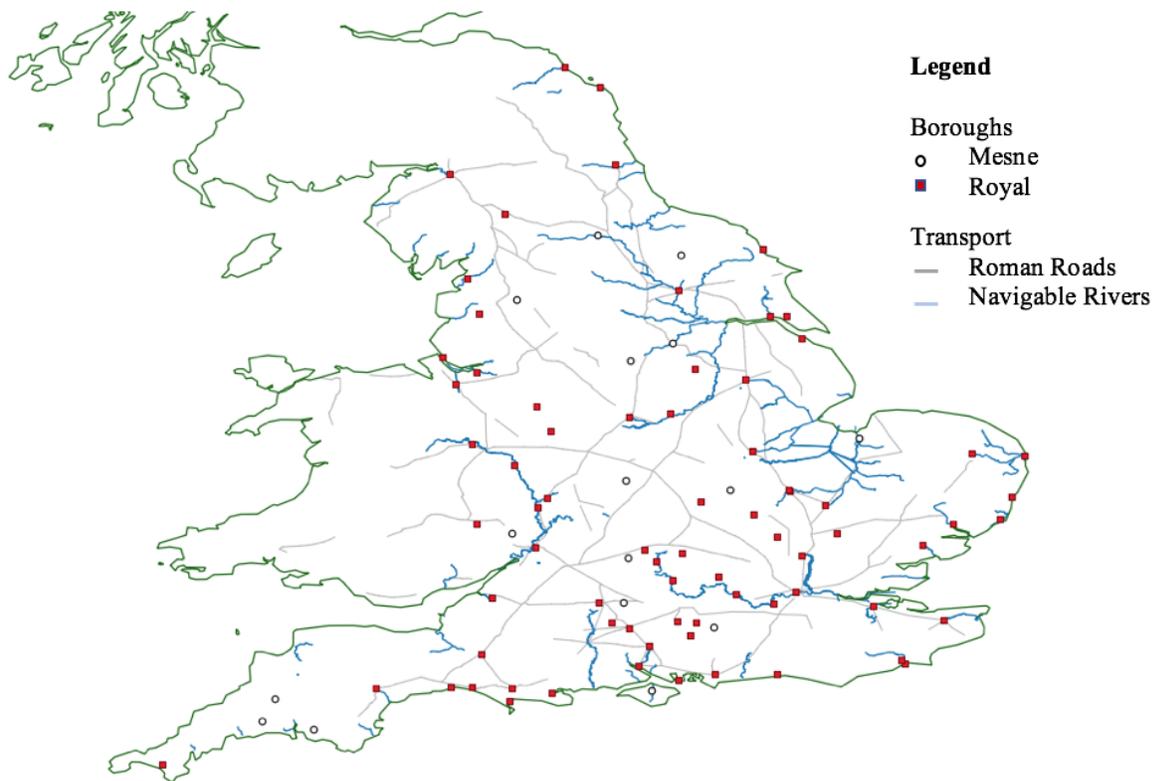


Figure A.2: Boroughs with Farm Grants, by Royal and Mesne

*Note:* This figure shows the location of the 90 boroughs in our dataset that had received Farm Grants by 1348. Solid squares indicate the 74 royal boroughs, and hollow dots, the 16 mesne boroughs (owned by local lords or by the Church). The figure also shows the location of navigable rivers and of Roman roads.

understanding, despite this difference in labeling, the variable “Total tax assessment” is measured in the *same* fiscal unit (hides), even when it is not referred to as “geld.”<sup>24</sup> We thus use taxable wealth for all boroughs, including those for which “Total tax assessment” is not in “geld” units.<sup>25</sup>

We exclude seven boroughs for which we have strong reasons to believe that our source (<http://opendomesday.org>) provides an incomplete (and therefore low) estimate. For instance, in the case of Oxford our source reports several entries, some of which have no figure for taxable wealth. As a result, the reported total (4 exemption units) is rather low. Our concern is corroborated by Ballard (1904), who provides a separate estimate of 100 geld units for Oxford (which we do not use in order to keep the data source consistent). As a further example, in the case of Southampton, the reported total (2.5 exemption units) is too low when compared to historians’ general assessment of the settlement’s importance. All of these seven boroughs that we exclude

<sup>24</sup>See <http://www.domesdaybook.net/domesday-book/data-terminology/taxation>).

<sup>25</sup>All our results hold when we use only the 80% of boroughs for which “Total tax assessment” is reported in “geld.” These results are available upon request.

were royal boroughs with Farm Grants and were represented in Parliament. Thus, if anything, excluding them from our regressions with taxable wealth stacks the odds against our main result – a strong relationship between Farm Grants and enfranchisement in royal boroughs.

## **B.6 Number of Tax Payers in the 1377 Poll Tax**

The most comprehensive data on borough size towards the end of our sample period are from the 1377 poll tax. The underlying data are from Fenwick (1998, 2001, 2005). The number of tax payers in the 1377 poll tax is a proxy for borough population since all burgesses over the age of fourteen (excluding beggars) were required to pay the same fixed amount. Overall, there are 157 boroughs with data on tax payers in 1377.<sup>26</sup> Due to the fixed nature of the per-head tax, there is no direct information on burgesses' wealth. However, more populous boroughs were arguably wealthier overall.

## **B.7 Geographic Variables**

We collect information on Medieval navigable rivers from Edwards and Hindle (1991), Langdon (1993), Jones (2000), Langdon (2000), Peberdy (1996), Gardiner (2007), Hooke (2007), Langdon (2007), and Rippon (2007). 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>). To account for possible endogeneity, we exclude humanly modified sections of rivers (Blair, 2007; Bond, 2007; Rhodes, 2007).

Information on Roman roads is collected from Hindle (1976). During the Dark Ages, most Roman Roads fell into desuetude. This changed with the Commercial Revolution and the increasing administrative centralization imposed by the new Norman rulers (Stenton, 1936). We geocode the location of Roman roads which, according to royal itineraries, were in use between the 11th and 14th centuries. This allows us to establish the proximity of a borough to a Roman road in use at the date of its foundation. We further employ individual boroughs' historical accounts from the British History Online (<https://www.british-history.ac.uk>) and the History of Parliament (<https://historyofparliamentonline.org>) to confirm the location of a borough in the proximity of a Roman road.

We geolocate boroughs located directly on the sea coast. We confirm the presence of a har-

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<sup>26</sup>We use data from 1377 because the poll tax of that year provides detailed data on tax-paying population for a large number of boroughs. Comprehensive data on settlements' wealth across England are also available for the lay subsidy of 1334. We do not employ these data in our empirical analysis because, unlike the poll tax of 1377, exemptions and difficulties in interpreting towns' boundaries led to a misrepresentation of urban wealth in 1334 (see Dyer, 2000, p. 755, and Nightingale, 2004).

bor by relying on the individual boroughs' historical accounts provided by British History Online (<https://www.british-history.ac.uk>) and History of Parliament (<https://historyofparliamentonline.org>). We also assign a borough as being on the sea coast if it had access to a navigable river (as defined in Edwards and Hindle, 1991) and the borough was located within 5 miles of the river mouth.

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).<sup>27</sup>

## **B.8 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>28</sup> Second, we gather information on whether a borough obtained a grant from the king or its lord that provided "freedom from tolls" – either throughout the realm or throughout the lord's territories. Those liberties were granted to 113 royal and mesne boroughs by 1348.<sup>29</sup> "Freedom from tolls" allowed all merchants from a borough to move tradeable goods throughout the area covered by the liberty without facing tolls.<sup>30</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.

## **B.9 Background on Borough Enfranchisement**

Figure A.3 provides an overview of enfranchisement over time. By 1348 (using the same cutoff date as for Farm Grants), 130 boroughs had obtained seats in Parliament; 74 of these were royal, and 56 were mesne boroughs. The second and third bars show that the majority of boroughs with Farm Grants had obtained seats in Parliament (64 out of 90), while this proportion was much smaller among boroughs without Farm Grants (66 out of 464). The right part of Figure A.3 shows that in the later period, between 1349 and 1700, 73 additional boroughs were enfranchised, and

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<sup>27</sup>For a straightforward interpretation of coefficients, we standardize soil quality. In the original FAO data, *lower* values correspond to better land for farming. We thus use the negative standardized variable.

<sup>28</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>29</sup>Because we are interested in whether a boroughs was active in trade, we focus on the overall set of "freedom from tolls," i.e., including those granted by the king and by mesne lords. Our results are very similar when we use only the more narrowly defined "freedom from tolls throughout the realm" (which including territories governed by mesne lords) that could only be granted by the king (overall 85).

<sup>30</sup>"Freedom from tolls" comprised all the market charges (transaction fees, right of displaying goods in markets, etc.).

the vast majority of these (62) did not have Farm Grants. In Appendix B.9 we provide empirical and historical evidence for “strategic enfranchisement” of much less important boroughs: This reflected an attempt by the king to control the House of Commons by giving seats in Parliament to small rural boroughs that were under the close control of his allies (Plumb, 1969; Hawkyard, 1991). We find that enfranchised boroughs without Farm Grants were particularly likely to be “rotten boroughs” (i.e., economically unimportant and under the close control of a local patron) – especially those enfranchised after 1348.

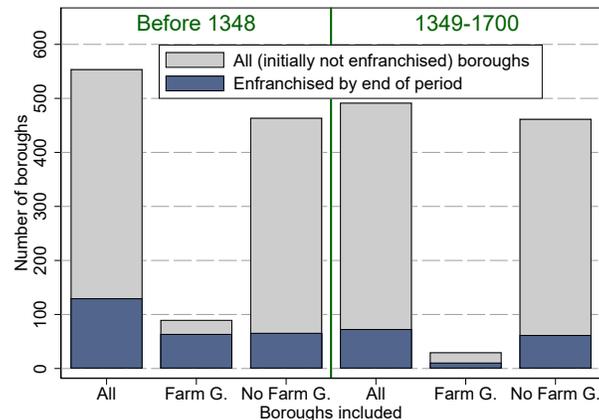


Figure A.3: Enfranchisement in Parliament of Boroughs over Time

*Note:* The figure shows the enfranchisement in Parliament for boroughs with and without Farm Grants, before and after 1348. The left part of the figure contains data for all 554 boroughs that existed before 1348; out of these, 130 were enfranchised in 1348. By 1348, 90 boroughs had Farm Grants; among these, 64 boroughs (71.1%) were enfranchised. Among the 464 boroughs without Farm Grants, 66 (14.2%) were enfranchised. The right part of the figure contains data for 492 boroughs that existed by 1700 and had *not* been enfranchised by 1348 (altogether, 621 boroughs existed in 1700; 71 were newly formed after 1348, and four boroughs had ceased to exist; see Appendix B.3 for detail). Out of these 492 boroughs, 73 were enfranchised by 1700 – the majority (62) were boroughs without Farm Grants.

As shown in Figure A.3 below, between 1348 and 1700, an additional 73 boroughs became enfranchised. Unlike the boroughs that gained representation in Parliament before 1348, the vast majority of these boroughs did not enjoy early self-governance. As the House of Commons grew in political power in the 15th and 16th centuries, kings resorted to the enfranchisement of rural boroughs in an attempt to control the lower house. For instance, as Porritt (1909) puts it:

“Nothing except the desire of the Crown [...] to control the House of Commons [...] could account for the enfranchisement of such Cornish boroughs as Newport, Saltash, Camelford, West Looe, Grampound, Bossiney and St. Michaels. Until the reign of Edward VI (1537-1553), Cornwall had not been over-represented. [...] it was in the reign of Edward VI that Cornwall first began to attain notoriety as a county of many boroughs. It owed this notoriety to the fact that it was a royal duchy, a county over which the Crown exercised more direct control than over most of the other counties of England.” (Porritt, 1909, pp. 373-4)

Consistent with their limited commercial importance, and being under close control of the king’s allies, these newly enfranchised boroughs were significantly more likely to be considered as “rotten” – i.e., small and subject to patronage – in the period leading up to the Great Reform Act. This is illustrated in Figure A.4. The left part of the figure examines boroughs that obtained seats in Parliament by 1348. It shows that the share of “rotten boroughs” was low among the boroughs with self-governance (Farm Grants), and high (almost one-third) among the other enfranchised boroughs. This suggests that strategic enfranchisement can potentially account for some of the non-commercial boroughs that gained representation in Parliament by 1348 (in addition to the factors discussed in Section 5.2 in the paper). The right part of Figure A.4 examines enfranchisement after 1700. Among the boroughs that were enfranchised later, there are much fewer boroughs with Farm Grants, and the share of rotten boroughs is even higher: Half of the boroughs without Farm Grants that were enfranchised between 1348 and 1700 became rotten, and almost all of the rotten boroughs were those without Farm Grants. Overall, these results are consistent with the strategic enfranchisement of commercially unimportant boroughs that were under close patronage of the king’s allies – in an attempt to shift the balance in the House of Commons in the king’s favor.

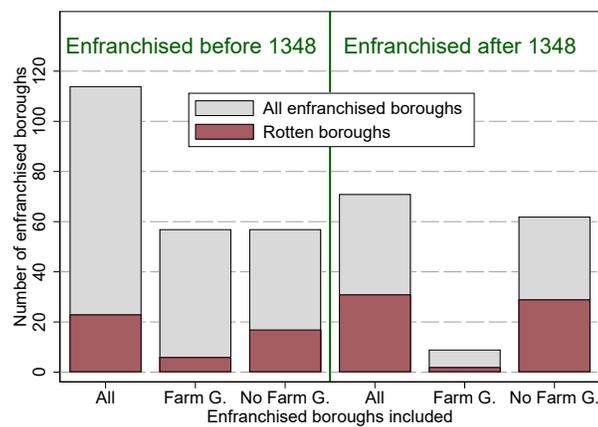


Figure A.4: Rotten boroughs: The role of Farm Grants and Timing of Enfranchisement

*Note:* The figure provides evidence for strategic enfranchisement: Among the boroughs without Farm Grants, the share of “rotten boroughs” was much larger, and this is particularly true for later enfranchisement (after 1348).

## B.10 Royal Influence on Local Politics: Background and Coding

In the 15th to 17th century, the king issued Charters of Incorporation to boroughs. 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).<sup>31</sup> Mesne boroughs could also receive a Charter of Incorporation from the king with their

<sup>31</sup>Often, these included the right to collect the farm for boroughs that had previously not possessed Farm Grants. However, this does not affect our results because we only code Farm Grants until 1348.

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. Incorporated boroughs were allowed to own property and issue by-laws. They were governed by municipal councils headed by mayors (Tait, 1936).

Coding. 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 the indicator *Influence King* that takes on value one for boroughs with both *first appointment clause* and *cooptation*.

Historical examples: Farm Grant boroughs opposing royal interference. Our results in Section 6.1 show that Farm Grant boroughs were more likely to resist royal interference. In what follows, we provide concrete examples how the broad governing bodies of self-governing towns resisted attempts of royal meddling.<sup>32</sup> Attempts of royal interference with municipal councils are observed as early as the 15th century. In York – whose Farm Grant dated back to the 12th century – Richard III attempted to install a narrow oligarchy and exclude the freemen from choosing borough officials. The Common Council, which was representative of the body of freemen, reacted by introducing a bill that asserted that borough officials' offices were not for sale, but rather were “to be chosen and elect by the mayre and his brether and with thassent of the commons” (as cited in Carpenter, 2000, p. 238). A further example is available from the Civil War period: In 1628, Charles I started a legal proceeding (*quo warranto*) against the corporation of Great Yarmouth, whose Farm Grant dated back to 1208, and whose Charter of Incorporation dated back to 1608. The king issued a new Charter of Incorporation in 1629, which reduced the governing body by half and limited its membership to those members who favored Charles' policy. The town's council immediately assembled and decided to legally challenge the new Charter by majority voting, thereby opposing its implementation. Eventually, after more than 10 years of (legal) struggle, Charles I was forced to reconfirm the original Charter (Patterson, 2005).

Another example is Norwich, whose Farm Grant dated back to 1194 and whose electorate and municipal offices were open to the body of freemen. According to Evans (1974, p. 76), “[v]arious factors tended to promote oligarchy in English towns between 1500 and 1640, not the least of

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<sup>32</sup>There is ample evidence that Farm Grant boroughs continued to have broader and more inclusive governing bodies after the 14th century. For example, in 15th century Colchester – whose Farm Grant dated back to 1189 – burgesses at large participated in the political life of the borough (Britnell, 1986, pp. 218-9). In 16th century York (a Farm Grant borough), the “mayoral chair included men from a variety of [...] crafts and trades, among whom were three goldsmiths, two tanners, a fishmonger, an innkeeper, a chandler, a glover, a carver, and a glazier (Bartlett, 1959, p. 32).”

which was the Crown policy of concentrating officeholding in the hands of a few reliable men. [...] Norwich resisted these pressures [...].”

*Historical evidence that Farm Grant boroughs cooperated in legal disputes with the Crown.*

When disputes with the Crown arose, Farm Grant boroughs often coordinated to act collectively in Parliament (Hartrich, 2019). A concrete example is the parliamentary Committee for Privileges and Returns. This committee could rule, for example, over cases in which sheriffs interfered with borough MPs’ returns (Keeler, 1994). It could thus be instrumented by enfranchised boroughs to protect their freedom in choosing MPs. Keeler (1994) reports that amongst the 17 borough MPs who were members of the 1604 Committee for Privileges and Returns, 9 were representatives of Farm Grant boroughs (despite the fact that Farm Grant boroughs were a minority in Parliament). Similarly, amongst the 9 borough MPs who were members of the 1605 Committee for Privileges and Returns, 6 were representatives of Farm Grant boroughs. By the early 17th century, the Commons had developed the right to rule over the regularity of MP elections’ returns through the standing Committee for Privileges and Returns (Keeler, 1982).

### **B.11 Data on MP Elections in the 17th-19th Centuries**

We use several measures for the openness of borough-level MP elections. The first two measures are based on Aidt and Franck (2015):

- *Broad Franchise*: This is a dummy variable that takes value 0 if the borough elected its MPs using a “burgage” or “corporation” franchise (“narrow franchise”), and takes value 1 otherwise. Under “burgage,” the right to vote was attached to the tenancy of a house or property designated as a burgage plot for parliamentary elections. Under “corporation,” only mayor, aldermen and (sometimes) councilmen could vote for the MPs representing their borough.
- *Patronage Index*: This index captures both the extent to which a borough was subject to patronage and whether it was disenfranchised by the Great Reform Act of 1832. It ranges from 0 to 2. The index equals 0 (closed) for rotten boroughs *and* closed constituency (controlled by local patron); it equals 1 if the borough was either rotten *or* a closed constituency, and it takes on value 2 (open) if neither of the two apply. Note that we redefined the original coding in Aidt and Franck (2015) so that larger values reflect openness of MP elections.

Next, we define three additional indexes for openness of MP elections:

- *Contested Elections*: This index ranges from 0 to 4. It reflects the number of MP elections (altogether four between 1820-31) for which there were more local candidates than the borough’s seats in Parliament (typically two). Data are from the History of Parliament (Fisher, 2009).

- *Openness Index/Dummy*: These measures capture the extent to which a borough's choice of its MPs was subject to the control of a patron (e.g., a local landed interest or the Treasury). It ranges from 1 to 3: The index equals 1 (closed) if both MPs were chosen by a patron, it equals 2 if only one MP was chosen by a patron, and 3 (open) if anyone could run for Parliament. Data are from the History of Parliament. We construct this index for different time periods:
  - *Openness 1820-1831*: This index takes value 3 if the borough is defined as “open” in Fisher (2009). It takes value 2 if the borough is reported as partially subject to patronage in the description of the constituency contained in Fisher (2009), and it takes value 1 if it is defined as “close” in the same source. Finally, we assign a value 1.5 to boroughs that are not listed as “open” in Fisher (2009), and for which we have been unable to fully establish the degree of patronage.
  - *Openness 1690-1715 / 1754-1790 / 1790-1820*: To construct the openness index for these earlier periods, we rely on the description of boroughs contained in Cruickshanks, Handley, and Hayton (2002), Namier and Brooke (1964), and Thorne (1986) respectively. We also make use of the more detailed boroughs' accounts available at <http://www.historyofparliamentonline.org>. Our coding criteria match those used for the index of openness 1820-1831. However, we adjust our coding because of the less clear-cut distinction between “open” vs. “closed” boroughs (especially for the period 1690-1715) made by our references.<sup>33</sup> We subtract 0.5 points from boroughs that are described as generally open, but in which “interests” (e.g., a landed gentlemen owning large properties in the borough) exerted some influence over the borough's elections of MPs. Similarly, we assign a value of 2 to boroughs that are not described as “closed” or “semi-closed,” but whose parliamentary seats were subject to strong “interests.”
  - *Openness dummies*: For each time period, we define a dummy that takes on value one if the borough is classified as “open” (i.e., if its openness index is strictly greater than 2).
- *Broad Franchise 1604-29 / 1660-90 / 1690-1715 / 1715-54 / 1754-90 / 1790-1820*: We apply the coding criteria described above for *Broad Franchise* in 1820-31 (following Aidt and Franck, 2015) to compute the same index for earlier periods.<sup>34</sup> We use the description

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<sup>33</sup>For the pre-Glorious Revolution period, the distinction between “open” and “closed” becomes even less precise. For consistency, we therefore start the construction of our *Openness* index in 1690.

<sup>34</sup>*Broad Franchise* is based on an objective measure (boroughs' franchise rules), for which we have data since 1604. In contrast, *Openness* is based on the accounts of boroughs' internal politics in the collection of books *History of Parliament*, which are less precise before 1690 (see footnote 33). We can thus extend the *Broad Franchise* measure further back in time than the above *Openness* measure.

of boroughs contained in Ferris and Thrush (2010), Henning (1983), Cruickshanks et al. (2002), Sedgwick (1970), Namier and Brooke (1964), and Thorne (1986).

## **B.12 The English Civil War: Background and Data**

The English Civil Wars (1642-1646 and 1648-49) and the crises and switches in political regimes that followed ultimately strengthened the English Parliament. By the end of Oliver Cromwell's rule in 1659, Parliament had gained greater control over the king's revenues (e.g., customs, excises, and hearth tax). Following the Glorious Revolution of 1688 and the coronation of William in 1689, the Parliament could no longer be dissolved without its consent. It also took full control over military expenses and granted the king the minimum amount of revenues necessary to cover the costs of civil government (Miller, 1983).

Background. In the early 17th century, the summoning and dissolving of Parliament was still a royal prerogative. In line with his absolutist tendencies, Charles I did not summon Parliament for a period stretching 11 years (1629-40). As a result, he resorted to various unpopular means to raise extra-ordinary taxes (e.g., the levying of ship money in 1634). Charles also introduced highly controversial religious measures, which raised suspicions that he was reintroducing Catholicism. His attempt to apply religious reforms to Scotland led to a Scottish rebellion and the first Bishops' War (1639). The disastrous outcome of the conflict forced Charles to summon Parliament to raise revenues. The MPs voiced many complaints about his rule – e.g., appointment of bishops, monopolies on international trade, internal licenses, and the farming of customs – and they opposed his plans to invade Scotland (Ashton, 1979; North and Weingast, 1989). The Parliament was dissolved after only a few weeks in May 1640, and Charles attacked Scotland again, suffering a humiliating defeat and prompting the invasion of northern England by the Scots in August 1640. Forced to pay tribute to the Scots, Charles summoned the Parliament again in November 1640 (Bennett, 1995). This Parliament would sit for the next 13 years.

Although a military conflict with the king – let alone its deposition – was unimaginable then, many MPs were hostile to Charles and successfully passed legislation that strengthened Parliament (e.g., the Act for Triennial Parliaments of 1641). When a rebellion broke out in Ireland in October 1641, both king and Parliament agreed that the creation of an army was necessary to suppress the uprising. However, neither side trusted the other with the control of these forces. The county militias – the only land forces available during peacetime – were under the control of the royal appointee lord-lieutenants, who supervised and trained them (Wedgwood, 1959). After the failure to secure control of the armed forces, in March 1642 Parliament issued the *Militia Ordinance* without royal approval to appoint its own lord-lieutenants. As a response, in June 1642 the king issued the *Commissions of Array* – a long obsolete tool to raise men in the shires. The choice whether to obey the *Militia Ordinance* or the *Commissions of Array* forced boroughs (i.e., their burgesses, local officials, or the governing lords) to pick a side.

In the months leading up to the outbreak of hostilities in August 1642, royalists and parliamentarians feared the other side's possible use of force, and preparations for military conflict began on both sides. The king recruited mostly from rural areas by relying on county-level officials (sheriffs and lords-lieutenants) and gentry. In contrast, the parliamentarians successfully recruited both in counties and boroughs, despite the fact that many boroughs attempted to remain neutral out of fear for their liberties (Howell, 1982). London provided over 6,000 men. The parliamentarians gathered volunteers by sending orders or logistical information to their appointed lord-lieutenants and to the lords sympathetic to their cause. Mayors were also contacted for recruitment in boroughs, and MPs dispatched to their constituencies to counteract the king's effort to enforce the *Commissions of Array*. One of Hull's MPs famously convinced John Hotham, Governor of Hull, to refuse the king's entry into the town (Bennett, 1995, p. 25). This led the king to move to Nottingham, where on August, 22nd 1642 he raised the Royal Standard. Soon thereafter, fighting broke out.

Both sides initially had over 15,000 men at their disposal, and battles were fought over large areas of the country for a period lasting three years. Although royalist forces initially had the upper hand, they were eventually defeated by the parliamentary forces in 1645, and the king was captured a year later. In 1647, the king conspired with the Scots, and fighting broke out again in 1648. The forces loyal to the king were defeated in 1649, and Charles was tried and sentenced to death the same year. The monarchy was abolished in February 1649, and Oliver Cromwell ruled with the help of the Parliament until his death in 1659. Although the monarchy returned in 1660, the Parliament had gained considerable power in the process, and the transition to a full-fledge constitutional monarchy would be complete by the end of the Glorious Revolution in 1689.

*Data.* We focus on the period immediately preceding the military conflict: January-August 1642. For each borough in our dataset, we record whether it raised volunteer troops to fight on the parliamentary side.<sup>35</sup> We collect information on boroughs' raising of volunteer troops from the House of Lords Journal (1629-42 and 1642-43) and from the Private Journals of the Long Parliament (3 January to 5 March 1642, 7 March 1642 to 1 June 1642, and 2 June to 17 September 1642).<sup>36</sup> We complement these data with those provided in Russell (1990) and Daniell (2008). Altogether, the parliamentary records mention 31 boroughs that raised voluntary troops to support the parliamentarians. Out of these, 30 boroughs existed by 1348 and are thus in our dataset. We create the indicator variable *Volunteers* for these 30 boroughs.<sup>37</sup>

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<sup>35</sup>We do not record recruitment after August 1642 because army movements across the territory render the "voluntary" nature of recruiting questionable. To the best of our knowledge, there exist no records of volunteer troops raised for the royalist side in the boroughs.

<sup>36</sup>These sources can be accessed online at the following links: <http://www.british-history.ac.uk/lords-jrnl/vol4>, <http://www.british-history.ac.uk/lords-jrnl/vol5>, and <http://www.british-history.ac.uk/commons-jrnl/vol2>.

<sup>37</sup>Information on the *number* of men raised by each borough is not available. However, the boroughs that raised men were explicitly discussed in Parliament (which underlies our data source). This suggests that the contributions of each of these boroughs must have been significant.

### B.13 The Great Reform Act: Background

The rules governing Parliament and the composition of enfranchised constituencies were largely unchanged from the 17th century to the Reform Act of 1832 (Porritt, 1909). In essence, the Parliament was an institution inherited from Medieval times. In 1830, 383 constituencies were represented, including 203 English boroughs returning a total of 405 MPs, as well as 40 English counties returning 82 MPs (Fisher, 2009). In our empirical analysis, we focus exclusively on English boroughs that had obtained the borough status by 1348.

The beginning of the 19th century was marked by profound discontent with local governance and MP elections. The Industrial Revolution led some boroughs to experience rapid population growth, thereby straining the public provision of sanitation and law and order (see Lizzeri and Persico (2004) and references therein). Moreover, the parliamentary system was generally perceived as corrupt (Brock, 1973, pp. 25-8), and many rapidly growing boroughs were unrepresented (e.g., Manchester).

Within enfranchised boroughs, large portions of the population were excluded from participating in MP elections. The internal franchise rule varied greatly from borough to borough. In 1830, six franchise rules existed (*scot and lot*, *householder*, *freeholder*, *freeman*, *burgage*, and *corporation*). Two of these rules – *burgage* and *corporation* – consisted of particularly narrow franchises. For instance, only the members of the governing body were allowed to vote in corporate boroughs. Further, MP elections were often subject to patronage.<sup>38</sup> In these cases, the borough “patron” – typically a large local landowner, and sometimes the Treasury – was effectively entitled to nominate some or all of the borough MPs. Patronage was particularly pervasive in the smaller “rotten” boroughs such as Gatton, which did not have any inhabitants left (Porritt, 1909, pp. 369-70).

Reforming the parliamentary franchise was a recurrent theme of British politics in the early 19th century (Brock, 1973). The chances for reform became tangible in the 1820s. By and large, Whigs and Radicals were in favor of reform, whereas Tories were against it.<sup>39</sup> Between 1822 and 1827, George Canning, the Tory Leader of the House of Commons, successfully appeased the “commercial men” and dampened their demand for a vast parliamentary reform by promoting liberal legislation (Brock, 1973). In 1828, besides the parliamentary reform, the Duke of Wellington’s Tory government faced three other major issues: the currency crisis that followed the financial crash of 1825-6, the Catholic Emancipation, and the Corn Laws. The possibility for reform presented itself when, in November 1830, during a period of general economic distress, Lord Grey formed the first Whig Government since 1806. By then, part of the Tories had turned in favor of reform, largely because of the rotten boroughs’ role in the Catholic Emancipation (Brock, 1973). However, MPs were chosen by their constituencies based not only on this possible reform, but also

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<sup>38</sup>For a comprehensive description of each franchise rule we refer to Fisher (2009).

<sup>39</sup>Among the Tories, the majority of the Huskissonites and many ultra-Tories were, however, in favor of reform (Brock, 1973, p. 76).

on other major issues such as Anti-Slavery, Corn Laws, and Free Trade (c.f. Fisher, 2009; Brock, 1973).

The first Bill was proposed in March 1831. The reform aimed at (i) harmonizing the franchise across boroughs, (ii) disenfranchising smaller boroughs, and (iii) enfranchising the newly industrialized ones. The reform undermined patrons' hold on boroughs both directly (by disenfranchising rotten boroughs) and indirectly (by making the electorate in enfranchised boroughs sufficiently large and uniform). Patrons of disenfranchised boroughs were partially compensated for the loss in the value of their property with an increase in the number of county seats.

The Bill of March 1831, 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. The general elections of April 1831 were effectively a referendum on the parliamentary reform. 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. The reform resulted in 56 boroughs being entirely disenfranchised and 30 boroughs losing one seat. On the winning side, 43 boroughs were enfranchised, with 21 gaining one seat and the rest two seats. In each enfranchised borough, all males owning property with an annualized value of at least £10 gained voting rights. The net effect of the reform was to extend the franchise from 3% to 6-7% of the population.

## **C Farm Grants and Representation in Parliament: Additional Results**

This appendix section presents numerous robustness checks and extensions of the empirical results in Section 5 the paper.

### **C.1 Conservative Classification of Borough Ownership**

Our result on the determinants of Farm Grants and enfranchisement hold also when we use a conservative classification of borough ownership. In the results presented in Table A.1, we classify as royal those boroughs that were owned by the king for more than 90% of the time period between their foundation and 1348. This leaves us with 86 royal boroughs. In addition, we include as mesne boroughs only those that belonged to mesne lords for more than 90% of the time – altogether 376. We exclude mixed boroughs (based on the 90% criterion) and those with incomplete ownership records (i.e., the 23 boroughs for which the scattered evidence on ownership points towards mesne lords – see Appendix B.3).

Columns 1-4 in Table A.1 examine the determinants of Farm Grants, replicating our results from columns 1-3 in Table 1, and from column 6 in Table 2 in the paper. Columns 5-7 in Table A.1 replicate our regressions for representation in Parliament from columns 1, 2, and 8 in Table 3 in the paper. We confirm all results from the paper.

Table A.1: Conservative Classification of Borough Ownership

Dependent variables: As indicated in table header							
Dep. Var.:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Indicator for Farm Grant by 1348				Enfranchised by 1348		
Notes:					2SLS <sup>‡</sup>		
Farm Grant 1348					0.494*** (0.075)	0.450*** (0.076)	0.581*** (0.205)
Royal borough (cons.)	0.504*** (0.055)	0.503*** (0.055)	0.499*** (0.055)	0.139* (0.073)	0.131** (0.061)	0.160*** (0.060)	0.084 (0.122)
River x Royal (cons.)				0.375*** (0.094)			
Sea Coast x Royal (cons.)				0.286** (0.121)			
Roman Road x Royal (cons.)				0.332*** (0.095)			
Navigable River				-0.017 (0.032)			-0.007 (0.042)
Sea Coast				0.000 (0.032)			0.052 (0.043)
Roman Road				-0.011 (0.023)			0.016 (0.035)
<i>p-value: joint significance</i> <i>River, Coast, Road</i>				[0.927]			[0.665]
County FE			✓	✓		✓	
Soil Quality		✓				✓	
Mean Dep. Var.	0.14	0.14	0.14	0.14	0.21	0.21	0.21
R <sup>2</sup>	0.33	0.33	0.40	0.48	0.24	0.36	0.24
Observations	462	462	462	462	462	462	462

Note: This table verifies that our main results for Farm Grants and boroughs' representation in Parliament hold also for the conservative coding of royal borough ownership in Appendix C.1. Columns 1-3 replicate the regressions from columns 1-3 in Table 1, and column 4 replicates column 6 from Table 2 in the paper. Columns 5-7 replicate results on parliamentary franchise from columns 1, 2, and 8 in Table 3 in the paper. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

<sup>‡</sup> Two-stage least square regression that uses the following variables to predict Farm Grants by 1348 in the first stage: the interaction of status as royal borough (conservative definition) with the location on the sea coast, on a navigable river, and on Roman roads. The status as royal borough itself, and the three geo-variables are included as controls in both stages. The first-stage F-statistic is 14.5.

## C.2 Farm Grants and Commercial Activity

In what follows we present suggestive evidence that Farm Grant boroughs were commercially more important already in the mid-14th century. Importantly, we do not argue that Farm Grants *caused* commercial importance. Instead, the following results underline the close – possibly bi-directional – relationship between self-governance and economic development at the local level. In columns 1-3 of Table A.2 we use our first proxy for commercial importance described in Appendix B.8: an indicator variable for “Freedom from tolls” – a grant of liberty that exempted a borough’s burgesses from tolls (taxes on trade). This liberty was issued by the king or lord against a fee paid by boroughs. Clearly, purchasing this liberty only made sense for burgesses from boroughs with a focus on trade. Column 1 shows that boroughs with a Farm Grant were 53 percentage points (p.p.) more likely to obtain “Freedom from tolls,” relative to an average of about 22 percent of boroughs that purchased such liberties. In column 2, we add county fixed effects and soil quality, and in column 3, we restrict the sample to royal boroughs. In both cases we confirm the strong positive association between Farm Grants and “Freedom from tolls” (with almost identical coefficient sizes).

Table A.2: Commercial Activity of Boroughs with Farm Grants

Dependent Variable: As indicated in table header						
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	Freedom from Tolls by 1348 <sup>†</sup>			Commercial Hub in 14C <sup>‡</sup>		
Boroughs included:	all	all	royal	all	all	royal
Farm Grant 1348	0.531*** (0.052)	0.543*** (0.051)	0.533*** (0.070)	0.381*** (0.053)	0.382*** (0.053)	0.417*** (0.065)
County FE		✓			✓	
Soil Quality		✓			✓	
Mean Dep. Var.	0.22	0.22	0.46	0.09	0.09	0.27
R <sup>2</sup>	0.22	0.33	0.29	0.24	0.29	0.22
Observations	554	554	145	554	554	145

*Note:* The table shows that boroughs with Farm Grants were commercially more important in the 14th century, using the two indicators explained below. Section 4.1 provides more detail. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>†</sup> Indicator variable for “Freedom from tolls” – a grant of liberty that exempted a borough’s burgesses from tolls (taxes on trade). See Appendix B.8 for detail.

<sup>‡</sup> Indicator variable for whether a borough was a commercial hub during the 14th century, based on Masschaele (1997). Criteria include the presence of merchant guilds, the classification as “urban” in the 1340 *Nonae Rolls* tax records, and the total tax on tradable goods levied in 1334.

In columns 4-6 of Table A.2 we repeat the same specifications as in the first three columns, but now using as dependent variable our second proxy for commercial importance: an indicator variable for whether a borough was a commercial hub during the 14th century, based on Masschaele

(1997). We confirm the previous results both in terms of magnitude and statistical significance: Boroughs with Farm Grants were much more likely to be commercial centers in the mid-14th century. We do not interpret these results causally. In fact, as by our argument, commercial centers were more likely to obtain Farm Grants in the first place. Thus, the correlations in Table A.2 corroborate our historical evidence that commercial activity was *associated* with Farm Grants.

### C.3 Balancing Royal and Mesne Boroughs

The comparability of royal and mesne boroughs is important for our use of mesne boroughs as a ‘placebo’ to check whether trade affected representation in Parliament via channels other than Farm Grants. We begin by describing the location of royal and mesne boroughs: Figure 4 in the paper shows that there does not seem to be spatial clustering – the 145 royal boroughs (solid squares), and the 409 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 A.3. Columns 1-3 in Panel A show that 31% of royal boroughs were located on a navigable river, as compared to 12.7% among the mesne boroughs. The proportions for Roman roads are 46.2% vs. 28.4%. These differences are statistically significant (while for location on the sea coast, there is no significant difference).

Table A.3: Balancedness of Geography and Wealth in Royal vs. Mesne Boroughs

	Raw Data				Values after Entropy Balancing <sup>‡</sup>			
<i>Panel A: Trade-related geographic features of boroughs</i>								
boroughs with data:	Royal Boroughs (overall 145)		Mesne Boroughs (overall 409)		p-value for difference in share	Mean for Royal Boroughs	Mean for Mesne Boroughs	p-value for difference in share
	#boroughs	share	#boroughs	share				
Navigable River	45	31.0%	52	12.7%	<0.001	31.0%	30.7%	0.95
Sea Coast	37	25.5%	84	20.5%	0.230	25.5%	25.5%	0.99
Roman Road	67	46.2%	116	28.4%	0.001	46.2%	45.8%	0.93
<i>Panel B: Taxable wealth of boroughs in 1086 (Domesday book data)</i>								
boroughs with data:	Royal Boroughs (overall 85)		Mesne Boroughs (overall 269)		p-value for difference	Mean for Royal Boroughs	Mean for Mesne Boroughs	p-value for difference
ln(taxable wealth in 1086)	1.885		1.622		0.098	1.885	1.884	0.995

*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.

A likely explanation for these differences in trade geography is that the king needed to ensure that royal officials and troops could reach his boroughs to secure the administrative and military

control over the realm (Astill, 2000, p. 44). This arguably favored strategically important locations on waterways and roads to become royal boroughs (Tait, 1936). 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 Book in 1086. Figure 5 in the paper (sample 1) shows that the distribution of taxable wealth was overall similar across royal and mesne boroughs. Panel B in Table A.3 shows that royal boroughs were on average somewhat wealthier, with a p-value of 0.098. 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 0.30. 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.

In the paper, we use regression weights as one way to create balancedness between royal and mesne boroughs. As shown in Panel A in Table A.3, 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, we can achieve balancedness by assigning 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 A.3 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 0.93 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).

#### C.4 Illustrating the Difference-in-Differences Setup for Enfranchisement

Figure A.5 illustrates our difference-in-differences setting for studying the role of Farm Grants in enfranchisement (royal vs. mesne and trade vs. non-trade boroughs). The left panel includes only boroughs without any trade geography (navigable river, the sea coast, or Roman road); the right panel includes only boroughs with trade geography (i.e., location on at least one of the three means of transport). In order to avoid that differential wealth may confound these results, we use a conservative subsample that excludes all boroughs with above-median taxable wealth in 1086 as well as the 10% poorest boroughs.<sup>40</sup> Accordingly, in the left panel there is essentially no difference in taxable wealth, and in the right panel royal boroughs are actually slightly *less* wealthy, which stakes the odds against them being more enfranchised (if one worries about wealth

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<sup>40</sup>The corresponding distribution of wealth in 1086 is shown in sample 3 in Figure 5 in the paper. In this subsample, wealth is very similar and – if anything – royal boroughs are marginally *poorer* on average. For both subsamples, the figure reports taxable wealth relative to the median (of all boroughs with available data, including those that were dropped).

having a positive confounding effect).

The figure shows that absent trade geography (left panel), very few boroughs (both royal and mesne) obtained Farm Grants, and the share of enfranchised boroughs was approximately 10% among both royal and mesne boroughs. Excluding the few Farm Grant boroughs does not change the proportion of enfranchised boroughs (this non-result follows mechanically due to the low number of Farm Grants among non-trade boroughs; it is only reported for completeness). Next, we turn to boroughs with trade geography (right panel). Here, we find a stark difference in both Farm Grants and enfranchisement between royal and mesne boroughs: Royal trade boroughs are significantly more likely to obtain self-governance and to be summoned to Parliament. Finally, when we exclude Farm Grant boroughs in the right panel, the remaining royal and mesne boroughs with trade geography have very *similar* rates of enfranchisement. This supports our argument that the link from trade to enfranchisement in royal boroughs worked via Farm Grants. Comparing the third columns in the left and right panel, we also note that mesne boroughs with and without trade geography had similar rates of enfranchisement. This supports our use of mesne boroughs as a ‘placebo’ to check the exclusion restriction that trade did not affect enfranchisement via channels other than Farm Grants. In fact, it is only for royal trade boroughs (i.e., those most likely to obtain Farm Grants) that we see a significant increase in Farm Grants and enfranchisement compared to all other boroughs (royal non-trade, mesne trade, and mesne non-trade). This is the variation that we exploit when using the interaction of trade geography with royal borough status to predict Farm Grants and (in the second stage) enfranchisement.

### **C.5 Results on Enfranchisement: Sub-samples by Borough Wealth**

Figure 5 in the paper shows four subsamples by taxable wealth in 1086. For each sample, Table A.4 presents our baseline regression for parliamentary representation of boroughs, showing OLS results in odd columns and 2SLS results in even columns.<sup>41</sup> As we discussed in the main text, the OLS coefficients on Farm Grants are remarkably stable across samples; the same is true for the 2SLS coefficients, although these are somewhat larger than their OLS counterpart.<sup>42</sup>

Table A.5 reports the reduced-form relationship between enfranchisement and trade geography for the four subsamples, by royal vs. mesne borough ownership. We find that trade geography is positively associated with enfranchisement throughout in royal boroughs (with the exception of negative, but insignificant, coefficients on navigable river in the smallest samples 3 and 4, which only include about 40 royal boroughs). As shown by the p-values reported at the bottom of Table A.5, the three trade geography variables are jointly highly significant for royal boroughs, with p-values below 0.01. In contrast, there is no relationship between trade geography and enfranchisement in mesne boroughs.

<sup>41</sup>The footer of the table reports the number of royal and mesne boroughs in each sample, their wealth, as well as the p-value for the difference in wealth in royal vs. mesne boroughs.

<sup>42</sup>The magnitude of the 2SLS coefficients have to be interpreted with caution – due to the smaller sample sizes, the first stage is weaker than in the full sample.

Table A.4: Farm Grants and Representation in Parliament – Subsamples by Wealth

Dependent variable: Indicator for borough enfranchised in Parliament by 1348

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Sample 1		Sample 2		Sample 3		Sample 4	
Boroughs included if taxable wealth in 1086:	wealth observed		wealth between 10th and 90th ptile		wealth between 10th and 50th ptile		top-50 ptile of mesne bottom-50 ptile of royal	
Estimation:	OLS	2SLS <sup>‡</sup>	OLS	2SLS <sup>‡</sup>	OLS	2SLS <sup>‡</sup>	OLS	2SLS <sup>‡</sup>
Farm Grant 1348	0.421*** (0.080)	0.748*** (0.219)	0.451*** (0.089)	0.743*** (0.225)	0.566*** (0.121)	0.840*** (0.161)	0.336*** (0.112)	0.807*** (0.202)
Royal borough	0.165*** (0.063)	0.005 (0.122)	0.167** (0.067)	0.042 (0.117)	0.085 (0.079)	-0.004 (0.098)	0.143* (0.076)	0.002 (0.091)
River, Coast, Road		✓		✓		✓		✓
Mean Dep. Var.	0.21	0.21	0.19	0.19	0.18	0.18	0.19	0.19
R <sup>2</sup>	0.24	0.19	0.27	0.22	0.27	0.23	0.14	0.01
Observations	354	354	296	296	155	155	174	174
# Royal Boroughs	85	85	72	72	37	37	43	43
# Mesne Boroughs	269	269	224	224	118	118	131	131
Wealth 1086 – Royal Boroughs	15.6	15.6	8.0	8.0	2.6	2.6	2.7	2.7
Wealth 1086 – Mesne Boroughs	10.0	10.0	6.9	6.9	2.8	2.8	18.0	18.0
<i>p-value Difference in Wealth</i>	[0.06]	[0.06]	[0.22]	[0.22]	[0.36]	[0.36]	[0.00]	[0.00]

*Note:* The table presents the OLS regression results underlying Figure 6, for the four subsamples based on borough wealth shown in Figure 5. In addition to the OLS results, the table also shows 2 SLS results for each sample. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>‡</sup> Two-stage least square regressions that use the three interaction terms of Royal Borough with Navigable River, Sea Coast, and Roman Road to predict Farm Grants in the first stage. The first stage also controls for the three geography variables in levels; the p-value for their joint significance are 0.66 in col 2, 0.85 in col 2, 0.95 in col 6, and 0.96 in col 8. The first-stage F-statistic is 8.7 in col 2, 7.7 in col 2, 4.9 in col 6, and 7.5 in col 8 (values above 6.5 correspond to a max. 20% relative bias).

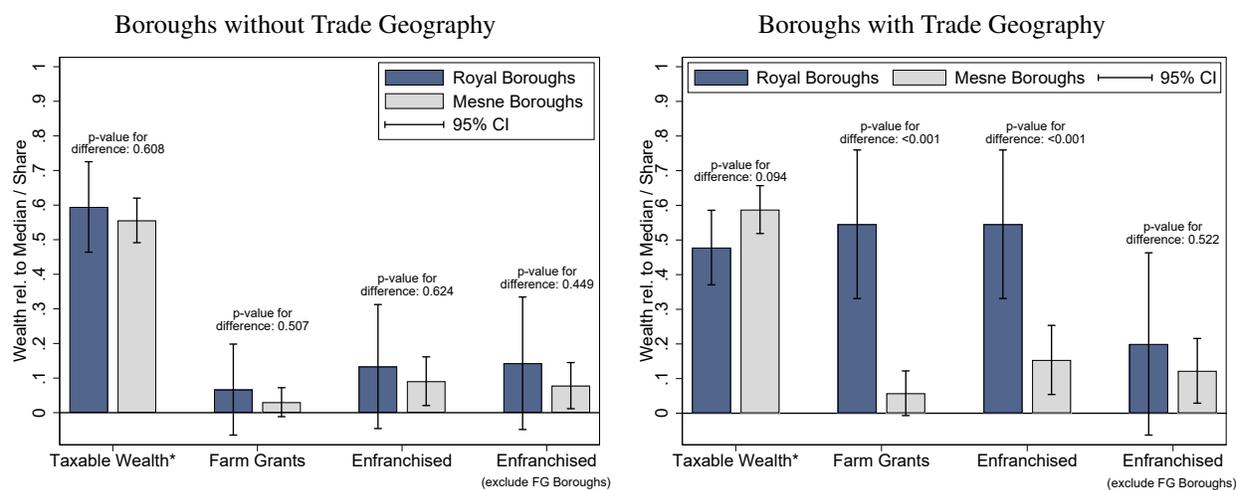


Figure A.5: Trade Geography, Farm Grants, and Enfranchisement

*Note:* The figure illustrates our difference-in-difference design (royal vs. mesne and trade vs. non-trade boroughs). To avoid that differences in wealth may confound this analysis, we exclude relatively wealthy and very poor boroughs, using only boroughs from sample 3 in Figure 5 in the paper. The left panel of the figure uses only the subset of boroughs *without* trade-favoring geography (i.e., boroughs without access to a navigable river, the sea coast, or an ancient Roman road – overall 74 boroughs); the right panel uses only boroughs *with* trade-favoring geography (overall 81 boroughs).

\* Taxable wealth is normalized, relative to the median across all boroughs with available data on taxable wealth in 1086.

chisement of mesne boroughs: The coefficient on the trade variables alter between positive and negative, they are quantitatively small, and none is statistically significant. Likewise, the p-values for the joint significance of the trade variables are always above 0.5 for mesne boroughs. Overall, the pattern in Table A.5 confirms our results for the full sample (columns 4 and 5 in Table 3).

### C.6 Matching by Wealth in 1086 and Taxpayers in 1377

This section uses a different technique to create balanced ‘control’ groups for Farm Grants boroughs : propensity score matching. In Table A.6 we first use taxable wealth in 1086 as a matching variable (columns 1-3), and then also the number of taxpayers in 1377 in columns 4-6 (see Appendix B.6 for detail on the data). Thus, our first matching variable is measured right after the Norman Conquest, before Farm Grants were issued and before the Commercial Revolution took off in England; our second matching variable is measured three centuries later, shortly after the end of the period that we consider for the issuance of Farm Grants.<sup>43</sup> The matching specifications compare each borough with a Farm Grant (‘treated’ borough) to a matched ‘control’ borough without Farm Grant. The ‘treated’ boroughs in columns 1 and 4 include all Farm Grant boroughs, while all remaining columns restrict these ‘treated’ observations to *royal* boroughs with Farm Grants. The

<sup>43</sup>Over the period 1130-1348, 90 Farm Grants were issued. In contrast, during the subsequent two centuries, only 13 boroughs obtained Farm Grants.

Table A.5: Reduced form for Samples 1-4 by Wealth – Representation in Parliament

Dependent variable: Indicator for borough enfranchised in Parliament by 1348

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Sample 1		Sample 2		Sample 3		Sample 4	
Boroughs included if taxable wealth in 1086:	wealth observed		wealth between 10th and 90th pctl		wealth between 10th and 50th pctl		top-50 pctl of mesne bottom-50 pctl of royal	
	royal	mesne	royal	mesne	royal	mesne	royal	mesne
Navigable River	0.138 (0.122)	0.066 (0.070)	0.025 (0.150)	0.051 (0.071)	-0.259 (0.161)	0.198 (0.145)	-0.247 (0.159)	0.013 (0.086)
Sea Coast	0.476*** (0.134)	0.045 (0.064)	0.478*** (0.132)	0.025 (0.062)	0.522*** (0.185)	0.062 (0.077)	0.527*** (0.184)	-0.024 (0.118)
Roman Road	0.252** (0.104)	-0.021 (0.044)	0.184 (0.116)	-0.013 (0.045)	0.245 (0.156)	0.009 (0.075)	0.275* (0.139)	-0.059 (0.059)
<i>p-value joint significance</i>	[0.00]	[0.71]	[0.00]	[0.90]	[0.01]	[0.53]	[0.01]	[0.77]
R <sup>2</sup>	0.16	0.01	0.16	0.00	0.27	0.03	0.26	0.01
# Boroughs	85	269	72	224	37	118	43	131

*Note:* The table presents the reduced-form relationship between representation in Parliament and trade geography for the four subsamples shown in Figure 5 in the paper. For each sample, the table reports results for royal boroughs in odd columns and for mesne boroughs in even columns. The results confirm those for the full sample in columns 4 and 7 in Table 3: There is a strong positive relationship between trade geography and enfranchisement in royal boroughs, but this does not hold in mesne boroughs.

‘control’ observations are matched (as the nearest neighbor in terms of taxable wealth or number of tax payers) from the following subsamples: in columns 1 and 4, all boroughs without Farm Grants; in columns 2 and 5 all *mesne* boroughs without Farm Grants; in columns 3 and 6 all *royal* boroughs without Farm Grants.

In Panel A of Table A.6, we report the matching results when using the full samples with available data in each of these categories. The coefficients on Farm Grants have a very similar magnitude as in our baseline OLS specifications: Farm Grant boroughs are approximately 50-60% more likely to be enfranchised than the matched control boroughs. The results are also statistically highly significant and remarkably stable across the various specifications.

One might worry that matches cannot be perfect if the wealthiest (or largest) boroughs got Farm Grants, so that there are no similarly wealthy boroughs in the control group. We address this concern in Panel B of Table A.6. There, we trim the sample by excluding all ‘control’ group boroughs that are smaller (in terms of the matching variable) than the smallest ‘treated’ (Farm Grant) borough, and we exclude all Farm Grant boroughs that are larger than the largest control group borough. In other words, we make sure that for each ‘treated’ borough, the matching algorithm can find a ‘control’ borough that is at least as wealthy (or as large). The corresponding distributions are shown in Figure A.6. There is a very close overlap of taxable wealth (cols 1-3) and taxpayers (cols 4-6) for ‘treated’ and ‘control’ boroughs; the log-point differences (reported

Table A.6: Farm Grants and Representation in Parliament – Matching Results

Dependent variable: Indicator for borough enfranchised in Parliament by 1348

	(1)	(2)	(3)	(4)	(5)	(6)
Matching based on:	Taxable Wealth in 1086			Taxpayers in 1377		
‘Treated’ boroughs: <sup>†</sup>	All FG	Royal FG	Royal FG	All FG	Royal FG	Royal FG
Matched (‘control’) boroughs: <sup>‡</sup>	All non-FG	Mesne non-FG	Royal non-FG	All non-FG	Mesne non-FG	Royal non-FG
<i>Panel A: Matching using the full sample with available data</i>						
Farm Grant 1349	0.570*** (0.069)	0.633*** (0.084)	0.572*** (0.123)	0.475*** (0.087)	0.594*** (0.064)	0.611* (0.337)
Observations	354	300	85	157	128	54
Farm Grant boroughs	55	43	43	41	33	33
Control boroughs	299	257	42	116	95	21
<i>Panel B: Trimmed sample – see Figure A.6 for distributions</i>						
Farm Grant 1349	0.554*** (0.067)	0.620*** (0.085)	0.542*** (0.115)	0.483*** (0.086)	0.607*** (0.061)	0.286* (0.154)
Observations	330	277	75	148	122	28
Farm Grant boroughs	52	40	34	36	29	9
Control boroughs	282	237	41	112	93	19

*Note:* The table shows that our main results (from Table 3) also hold when we use propensity score matching by wealth in 1086 (cols 1-3) or by the number of tax payers in 1377 (cols 4-6). Propensity score matching is performed with one nearest neighbor. Panel A uses all observations with available data; Panel B trims the sample, excluding all control group boroughs that are smaller (in terms of the matching variable) than the smallest ‘treated’ (Farm Grant) borough, and excluding all Farm Grant boroughs that are larger than the largest control group borough. See Figure A.6 for the corresponding distributions. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

<sup>†</sup> In cols 1 and 4, ‘treatment’ observations are all (royal and mesne) Farm Grant boroughs; in all other columns, ‘treated’ observations are only royal boroughs with Farm Grants (FG).

<sup>‡</sup> ‘Control’ observations include the following boroughs: in cols 1 and 4 all boroughs without Farm Grants (FG); in cols 2 and 5 all mesne boroughs without FG; in cols 3 and 6 all royal boroughs without FG.

in each panel) are tiny, and the p-values are always well above the threshold of 0.1 for (marginal) statistical significance. At the same time, the results from Panel A hold: The coefficient on Farm Grants is of similar magnitude and remains statistically highly significant in all cases (except for column 6, where the sample becomes small).

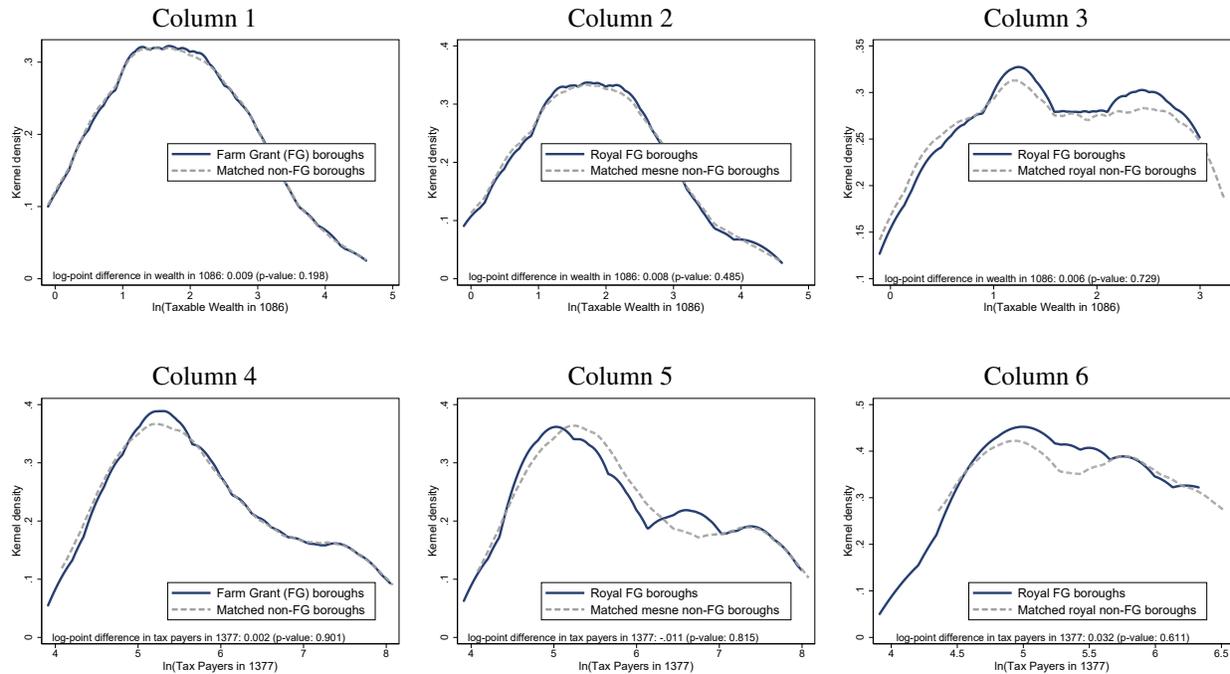


Figure A.6: Taxable Wealth for Farm Grant and Control Boroughs in Panel B of Table A.6

Note: The figure shows the distribution of the ‘treatment’ (Farm Grant) and ‘control’ observations corresponding to the trimmed sample matching in Panel B of Table A.6.

Note that the specifications that are closest in spirit to our difference-in-differences setup are those in columns 2 and 4, where we compare royal boroughs with Farm Grants to their nearest neighbors among mesne boroughs without Farm Grants. One concern that we prominently discussed in Section 5.3 of the paper is the comparability of royal and mesne boroughs. In particular, regarding the matching results of columns 2 and 4, one may worry that institutional differences hampered the enfranchisement of mesne boroughs (although our historical discussion in Section 3.6 renders this unlikely). The matching results in columns 3 and 6 of Table A.6 further address this point: Here, we match to each ‘treated’ royal Farm Grant borough the most similar *royal* borough without a Farm Grant. We still confirm our baseline results. Thus, even when we keep the institutional environment the same (i.e., only using boroughs owned directly by the king), we confirm the higher odds of enfranchisement for Farm Grant boroughs. Of course, in this analysis, one may be concerned that royal Farm Grant boroughs were different from royal non-Farm Grant boroughs. Figure A.6 addresses this for taxable wealth and number of taxpayers: the distributions

of ‘treated’ and ‘control’ overlap very closely – that is, our matching specifications in columns 3 and 6 indeed compare very similar royal boroughs. The one observable dimension along which Farm Grant boroughs differ from other royal boroughs is trade geography – but this is exactly in line with our argument that trade led to self-government only in royal boroughs.<sup>44</sup>

### **C.7 Possible Royal-Mesne Differences other than Borough Wealth or Population**

In light of the findings in Appendix C.6, one would have to make a very specific argument to remain skeptical about our results: One would have to argue that trade geography had different effects in royal and mesne boroughs. We can think of two possible channels: i) selection on trade characteristics: that the king picked the best places with trade geography to become royal boroughs, and ii) institutional differences: that the king promoted trade particularly strongly in the royal demesne or that mesne lords prevented trade geography from unfolding its potential in their territories. Before discussing each point in detail, we present evidence against both: If either point i) or ii) were fully responsible for our results, one should expect that trade geography in mesne boroughs should be unrelated to economic outcomes, such as borough population or their importance as historical trade centers. This is not the case, as we show next.

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

In Table A.7, we documented a statistically highly significant association between trade geography and economic outcomes in *both* royal and mesne boroughs. We use four different economic variables. Columns 1 and 2 show that navigable rivers and Roman roads positively predict taxable wealth in 1086, while results for boroughs by the sea coast are mixed.<sup>45</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 (see Appendix B.8). Columns 5 and 6 show that navigable rivers are a strong predictor of the number of tax payers in the poll tax of 1377.<sup>46</sup> Finally, columns 7 and 8 use city population in the mid-17th century as dependent variable.<sup>47</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

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<sup>44</sup>Among the royal boroughs with Farm Grants, more than 90% are located on a navigable river, Roman roads, or the sea coast. Among the remaining royal boroughs, only about 60% have trade-favoring geography.

<sup>45</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>46</sup>These data are from Fenwick (1998, 2001, 2005). The number of tax payers in 1377 is a proxy for borough population since all burgesses over the age of fourteen (excluding beggars) were required to pay the same fixed amount.

<sup>47</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, Johnson, and Robinson, 2005; Dittmar, 2011; Squicciarini and Voigtländer, 2015).

bottom of Table A.7) are almost always below 0.01.

Table A.7: Trade Geography and Economic Outcomes in Royal and Mesne Boroughs

Dependent variable: As indicated in table header								
Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ln(Taxable Wealth 1086)		Commercial Importance 14C <sup>†</sup>		ln(Tax payers 1377)		ln(population mid-17C)	
Boroughs included:	royal	mesne	royal	mesne	royal	mesne	royal	mesne
Navigable River	1.189*** (0.344)	0.575*** (0.211)	1.068*** (0.254)	0.274** (0.122)	1.558*** (0.332)	1.316*** (0.319)	0.920*** (0.248)	0.487*** (0.136)
Sea Coast	0.105 (0.297)	-0.590*** (0.217)	0.902*** (0.250)	0.186** (0.085)	0.620* (0.335)	-0.086 (0.196)	0.175 (0.246)	-0.101 (0.108)
Roman Road	0.203 (0.258)	0.153 (0.157)	0.721*** (0.215)	-0.016 (0.059)	0.248 (0.304)	0.304 (0.232)	0.465** (0.186)	0.210** (0.096)
<i>p-value: joint significance River, Coast, Road</i>	[0.006]	[0.003]	[<0.001]	[0.029]	[<0.001]	[<0.001]	[<0.001]	[<0.001]
Mean Dep. Var.	1.88	1.62	0.79	-0.28	6.29	5.60	7.19	6.75
R <sup>2</sup>	0.17	0.05	0.22	0.05	0.36	0.18	0.17	0.07
Observations	85	269	145	409	54	103	126	279

*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 45 for an explanation for the negative coefficient on sea coast in 1086.

<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). See Appendix B.8 for detail.

In what follows, we discuss points i) and ii) individually, focusing on the extent to which they are compatible with the historical record and with our empirical results.

### *Point i) Selection of Royal Boroughs Based on Trade Characteristics?*

The historical context renders point i) unlikely: By the time of the Conquest, the Commercial Revolution had not yet reached England (Britnell, 1981). In fact, easily accessible locations on the sea coast were initially *disadvantaged* because they were more likely to suffer from Scandinavian raids (see Table A.7). After the Conquest, the strong military control by the Normans inhibited raids, and the resulting security of trade routes contributed to the Commercial Revolution in England (Tait, 1936, p. 136). However, by that time the division into royal and mesne boroughs had already been established – certainly so for the ‘Domesday boroughs,’ for which all our results go through (see Appendix C.8 below).

In Table A.8 we provide additional evidence against point i), showing that our results hold even when we compare royal and mesne boroughs with exactly the same trade characteristics. We build on our main matching specification, comparing ‘treated’ royal Farm Grant boroughs to matched mesne non-Farm Grant boroughs. The matching variable is taxable wealth in 1086. In addition,

we restrict the sample by trade characteristics. The first four columns introduce restrictions based on trade geography: Column 1 includes only boroughs with trade geography (i.e., at least one of the three variables), and the remaining 3 columns go even further, including only boroughs on navigable rivers (column 2), on the sea coast (column 3), or on Roman roads (column 4). Column 5 restricts the sample to boroughs that had obtained Freedom from Tolls – a clear sign of trade activity (see Appendix B.8). Finally, column 6 restricts the sample to boroughs with both trade geography and Freedom from Tolls. Within these subsamples, we trim wealth to ensure that for each ‘treated’ borough, there is a ‘control’ borough that is at least as wealthy.<sup>48</sup> The distributions of taxable wealth in ‘treated’ and ‘control’ boroughs for each subsample are shown in Figure A.7: The differences are minuscule, and in three of the four subsamples the ‘treated’ Farm Grant boroughs are actually slightly poorer than the ‘control’ boroughs. To illustrate the exercise in Table A.8, consider for example column 2: Here we compare royal Farm Grant boroughs located on a navigable river to mesne boroughs (without Farm Grants) that are also on a navigable river and have very similar wealth.<sup>49</sup> Even in this extremely restrictive exercise, we fully confirm the magnitude and statistical significance of our main result: Farm Grant boroughs were at least 55% more likely to be enfranchised than comparable mesne boroughs with the same trade geography and wealth. The matching results are similar throughout Table A.8, notably also in column 5 where we use historical exemptions from tolls rather than trade geography to restrict the sample. These strong and coherent results make it very unlikely that systematic differences in trade characteristics between royal and mesne boroughs confound our findings.<sup>50</sup>

#### *Point ii): Institutional Differences and Trade*

Did institutional differences foster trade only in royal boroughs? The historical record is not compatible with this presumption: As Ballard and Tait (1923, lxxx) point out, mesne lords provided borough communities in their territories with “the concessions that were needed to make a settled trading life possible.” The same authors emphasize that – in line with our argument – the main difference between royal and mesne boroughs was the (almost complete) absence of Farm Grants in the latter (see Section 3.5), such that even “the most fortunate mesne borough enjoyed a smaller measure of self-determination” (Ballard and Tait, 1923, p. lxxxi). Ballard and Tait (1923) also point out that the difference in self-governance and other privileges between royal and mesne lib-

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<sup>48</sup>Thus, the matching methodology corresponds to column 2 in Panel B of Table A.6, but with the additional restrictions on trade characteristics.

<sup>49</sup>Note that, by construction, the navigability of the rivers in our sample cannot differ across royal and mesne boroughs. Using a variety of sources that we checked against each other, we coded only non-minor rivers with reported navigability (see Appendix B.7).

<sup>50</sup>A final objection that one may have is that the king may have picked more centrally located boroughs on trade routes. In our data, there is no support for this: As shown in Figure 4, royal and mesne boroughs are scattered across the realm. We also performed a concrete check: Comparing royal and mesne settlements on navigable rivers that existed in 1086 (and became boroughs by 1348), we find no statistically significant difference in distance to London. The same is true for settlements on Roman roads.

Table A.8: Matching Results with Trimmed Sample and Trade Geography Restrictions

Dependent variable: Indicator for borough enfranchised in Parliament by 1348						
	(1)	(2)	(3)	(4)	(5)	(6)
Matching based on:	Taxable Wealth in 1086, trimmed sample with further restrictions:					
Only boroughs with:	Any Trade Geography	Navigable River	Sea Coast	Roman Road	Freedom from Tolls	Freedom from Tolls & Trade Geography
Farm Grant 1349	0.650*** (0.082)	0.549*** (0.183)	0.737*** (0.131)	0.784*** (0.078)	0.475*** (0.150)	0.440*** (0.166)
Observations	145	41	38	88	44	36
Farm Grant boroughs (treated)	34	11	13	20	21	21
Control boroughs	111	30	25	68	23	16

*Note:* The table repeats the matching exercise from column 2 in Panel B of Table A.6, introducing further restrictions based on trade geography. Estimates are from propensity score matching by wealth in 1086 with one nearest neighbor. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Col 1 includes only boroughs with trade geography (location on a navigable river, the sea coast, or Roman road); cols 2-4 further restrict the sample to boroughs with specific trade geography (i.e., one of the three variables).

‘Treatment’ observations are royal boroughs with Farm Grants; ‘control’ observations include all mesne boroughs without Farm Grants. The sample is trimmed, excluding all mesne boroughs that have lower taxable wealth than the poorest Farm Grant borough, and excluding all Farm Grant boroughs with higher wealth than the wealthiest mesne borough. See Figure A.7 for the corresponding distributions.

erties “must be traced to want of will as well as want of power on the part of its lord” (p. lxxxii). An example for “want of will” are Farm Grants, which local lords could grant, but typically chose not to (see Section 3.5). An example for “want of power” are liberties that institutionalized the separation of boroughs from the shire administration, such as *non-intromittat* or *direct relation with the Exchequer* (see Sections 3.7 and 5.4 in the paper). These could only be granted by the king.<sup>51</sup> The Crown rarely granted mesne boroughs liberties that institutionalized their separation from shires for *extra-ordinary* taxation.<sup>52</sup> Rigby and Ewan (2000, p. 293) also underline administrative autonomy as the main distinguishing feature between royal and mesne (seigneurial) boroughs: “the majority of medieval English towns were seigneurial foundations, even the largest and wealthiest of which rarely equalled the royal boroughs in their autonomy.” Bailey (2007, pp. 133-4) confirms this point. In sum, when historians discuss institutional differences between royal and mesne boroughs they typically underline autonomy-granting liberties, and this dimension is fully in line with our argument.

A natural question to ask is whether other liberties that were not related to the administrative autonomy of boroughs (and were thus not related to our main argument) may also have been

<sup>51</sup>Regarding Freedom from Tolls throughout the realm, there is no clear distinction between royal and mesne boroughs: On the one hand, only the king could grant these, since they comprised also exemptions from taxes in royal territories (Ballard and Tait, 1923, p. lxxxii). On the other hand, we find that Freedom from Tolls throughout the realm were frequent also among mesne boroughs: Among the 57 mesne boroughs that had obtained (any) Freedom from Tolls by 1348, 22 (38.6%) enjoyed these throughout the realm.

<sup>52</sup>This had several possible reasons: First, mesne boroughs rarely enjoyed autonomy in the collection of *ordinary* taxation (i.e., they rarely had Farm Grants) and therefore did not develop the administrative capabilities to organize *extra-ordinary* taxation. Second, the Crown had an incentive to keep boroughs – whose ordinary administration was appointed by lords – under the supervision of royal shire officials.

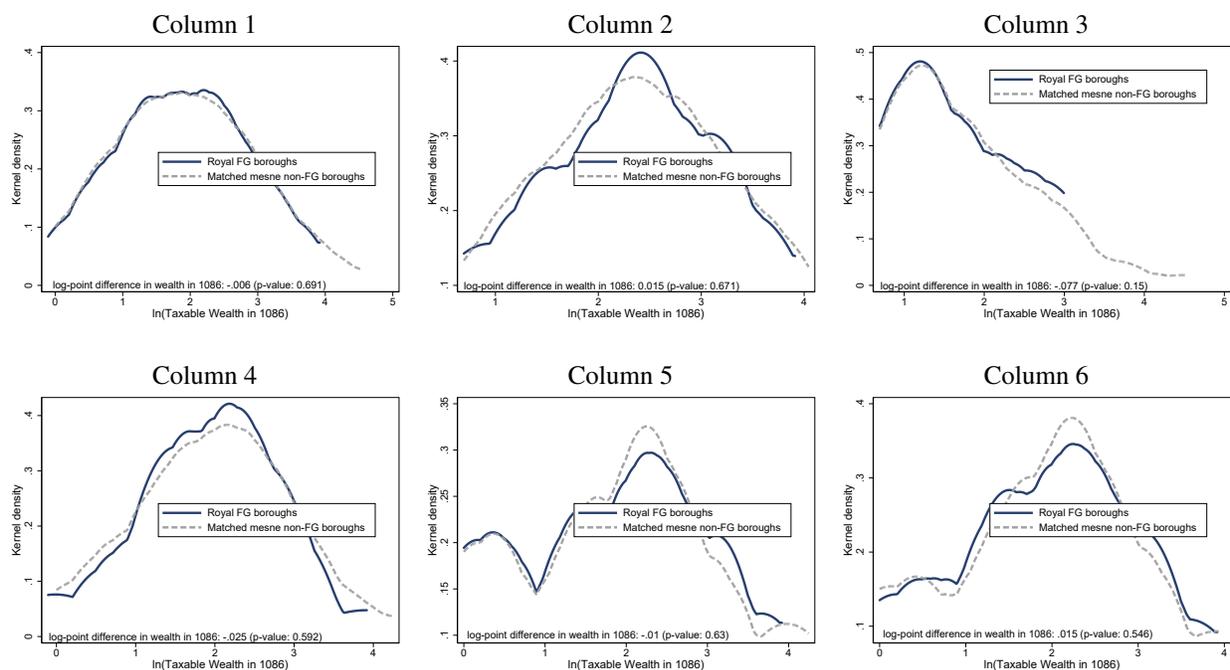


Figure A.7: Taxable Wealth for Farm Grant and Control Boroughs in Table A.8

*Note:* The figure shows the distribution of taxable wealth in 1086 for the ‘treated’ (Farm Grant) boroughs and the corresponding matched ‘control’ (mesne) boroughs, underlying the results in Table A.8.

granted predominantly to royal boroughs. We examine such liberties in detail in Appendix C.10, focusing on the prominent examples of Murage and Pavage grants, as well as the right to elect local officials (independent from voting rights being bestowed by Farm Grants). While we do find a relationship between these liberties and representation in Parliament, this is quantitatively weaker than for Farm Grants, and controlling for these liberties does not change our main results. Here, we use the matching exercise from Table A.6 for an additional check: We examine whether abstracting from Farm Grants, other liberties were relatively balanced across royal and mesne boroughs. We create an indicator for ‘other liberties’ that did not separate a borough from its shire administration – these comprise Murage/Pavage grants, the right to elect other officials, and Freedom from Tolls (see Appendix B.8). We then examine the share of boroughs with other liberties in the ‘control groups’ of Table A.6. In particular, we compare the ‘control groups’ that include only *mesne* boroughs without Farm Grants (columns 2 and 5) and the ‘control groups’ that consist only of *royal* boroughs without Farm Grants (columns 3 and 6). The shares are 21.0% and 32.6% in columns 2 and 5, respectively, as compared to 26.2% and 28.6% in columns 3 and 6.<sup>53</sup> Thus, the share of other liberties is very similar in the mesne-only and the royal-only ‘control groups’ of

<sup>53</sup>None of the pairwise differences (col 2 vs. 3 and col 5 vs. 6) is statistically significant. We report the results for Panel A in Table A.6. The share of other liberties is very similar in Panel B, where we also established balancedness in taxable wealth.

our matching exercise. This is in line with the view of historians discussed above that the most salient difference in liberties between royal and mesne boroughs were Farm Grants and related autonomy-granting charters.

### C.8 Sample Splits by Status as Domesday Borough

We have shown in various balancing exercises that our results are not driven by observable differences between royal and mesne boroughs, such as wealth or trade geography. However, a skeptical reader may still worry that our balancing exercises are performed with noisy variables, or that there are other relevant (unobserved) differences that affected the division into royal vs. mesne boroughs (and that these differences, in turn, may also be related to Farm Grants and enfranchisement). For example, after the Norman Conquest, the king may have picked the most important boroughs on trade routes, leaving less attractive locations with trade geography to the lords.<sup>54</sup> In what follows we use historical information on the most important urban settlements at the time of the Norman Conquest – locations that were explicitly listed as ‘boroughs’ in the Domesday Book.<sup>55</sup> Domesday boroughs were important military and administrative centers of the time; for example, many were the location of shire courts (Brooke, 1961, p. 127). If the king cherry-picked royal boroughs, Domesday boroughs were certainly the most attractive targets.<sup>56</sup>

In Table A.9, we use the status of Domesday borough to create various sample splits and check the robustness of the relationship between Farm Grants and enfranchisement. For comparison, column 1 reports our baseline specification (from column 1 in Table 3), showing a coefficient on Farm Grants of 0.466. Next, in column 2 we restrict the sample to the 106 Domesday Boroughs, i.e., the most important settlements at the time of the Norman Conquest. This subsample includes 62 royal and 44 mesne boroughs. We find that the coefficient on Farm Grants is very similar to our baseline result. In column 3, we *exclude* all Domesday boroughs from our dataset. Again, the coefficient on Farm Grants is essentially unchanged. Together, these findings make it unlikely that our results are confounded by the king picking the most important boroughs.

In columns 4-6 we perform a particularly restrictive exercise, using only non-Domesday royal boroughs and Domesday mesne boroughs. That is, the restricted sample in these columns *excludes* the most important royal boroughs, while *including only* the most important mesne boroughs. If our findings were driven by the king cherry-picking royal boroughs, the correlation between Farm Grants and enfranchisement should disappear – or at least be much weaker – in this subsample.

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<sup>54</sup>Note, however, that we have shown that trade geography does predict trade-related outcomes in both royal and mesne boroughs (see Table A.7). Thus, our trade geography proxies cannot just be ‘noise’ for mesne boroughs.

<sup>55</sup>These are listed in Darby (1977). There are overall 112 Domesday Boroughs in Darby’s list. We have excluded 6 settlements whose ‘borough status’ in 1086 is not supported by the evidence reported in Letters et al. (2003), but none of our results depend on this correction. The remaining 448 settlements in our dataset achieved the status as ‘boroughs’ after 1086 (but before 1348).

<sup>56</sup>Royal Domesday boroughs included important towns and cities such as London, Bristol, Oxford, Cambridge, York, Norwich, Ipswich, and Nottingham.

This is not the case; the coefficient is actually slightly larger in column 4, and it remains statistically highly significant. Note also that the coefficient on royal borough in column 4 is negative and significant. Thus, after accounting for Farm Grants, royal boroughs in this subsample were actually *less* likely to be enfranchised than mesne boroughs.<sup>57</sup> In columns 5 and 6 we also confirm our reduced-form results in this particularly restrictive sample. We find a positive and statistically significant relationship between trade geography and enfranchisement for royal boroughs, while the coefficient is small, negative and insignificant for mesne boroughs.<sup>58</sup> In other words, even when excluding the most important royal boroughs, a strong relationship between trade geography and enfranchisement remains; and conversely, even when looking only at the most important mesne boroughs, there is no such relationship.

Table A.9: Sample Splits by Status as Domesday Borough

Dependent variable: Indicator for borough enfranchised by 1348						
	(1)	(2)	(3)	(4)	(5)	(6)
Boroughs included:	All Boroughs	Domesday Boroughs	non-Domes- day Boroughs	non-Domesday Boroughs and Domesday Mesne Boroughs	Reduced Form for: Royal      Mesne	
Notes:						
Farm Grant 1348	0.466*** (0.063)	0.401*** (0.114)	0.428*** (0.076)	0.545*** (0.092)		
Royal borough	0.154*** (0.050)	0.204 (0.127)	0.037 (0.047)	-0.235*** (0.082)		
Trade Geography Dummy					0.203** (0.099)	-0.057 (0.157)
Mean Dep. Var.	0.23	0.58	0.15	0.31	0.31	0.32
R <sup>2</sup>	0.26	0.30	0.16	0.22	0.04	0.00
Observations	554	106	448	127	83	44
Royal boroughs	145	62	83	83	83	
Mesne boroughs	409	44	365	44		44
Farm Grant boroughs	90	39	51	35	35	0

*Note:* The table uses the status as Domesday borough (particularly important urban settlements at the time of the Norman Conquest) to perform various sample splits, showing that the coefficient on Farm Grants remains very similar. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

The particularly restrictive sample used in columns 4-6 also has another attractive feature: It

<sup>57</sup>In this subsample, the overall share of enfranchised boroughs is very similar for royal and mesne boroughs – about 31%. However, none of the mesne boroughs had a Farm Grant. Among the 83 royal boroughs, 35 had Farm Grants, and among these, 22 (62.9%) were enfranchised. Among the remaining 48 royal boroughs without Farm Grants, only 4 (8.3%) were enfranchised. The relatively high rate of enfranchisement of the mesne boroughs in this sample is likely due to their administrative importance, as discussed in Section 3.6 in the paper.

<sup>58</sup>We use a dummy for any trade geography because in the small sample, there is not enough power to separately estimate the three trade characteristics navigable river, sea coast, and Roman road. However, when including the three indicators separately (results not reported in the table), they are jointly highly significant (p-value 0.005) for royal boroughs; for mesne boroughs, the three coefficients are not jointly significant with a p-value of 0.278 (and two out of three coefficients are negative).

is fully balanced along all relevant observable characteristics for royal and mesne boroughs. Table A.10 shows that royal and mesne boroughs had very similar rates of enfranchisement, they had similar trade geography, as well as taxable wealth. All differences between royal and mesne are quantitatively small and statistically insignificant, with p-values above 0.5 throughout. Nevertheless, even in this balanced subsample, there is a stark difference for Farm Grants: These were only granted to royal boroughs, of whom 42.2% received Farm Grants. In contrast none of the mesne boroughs received Farm Grants.

Given the balancedness in this subsample, the results in columns 4-6 of Table A.9 complement our analyses above, where we achieved balancedness using econometric techniques (entropy weights and propensity score matching). In all cases, we find very stable and robust coefficients on Farm Grants, underlining that it is very unlikely that our results are driven by systematic differences between royal and mesne boroughs.

Table A.10: Balancedness of Royal vs. Mesne Boroughs in Cols 4-6 of Table A.9

	Royal Boroughs Excluding Domesday (overall 83)	Mesne Boroughs Only Domesday (overall 44)	p-value for difference difference
Charters of liberties (share)			
Farm Grants	42.2%	0.0%	<0.001
Other liberties <sup>‡</sup>	46.9%	40.9%	0.516
Enfranchisement (share)			
Among all boroughs	31.3%	31.8%	0.955
Among Farm Grant boroughs	62.9%	[none]	–
Trade Geography (shares):			
Any Trade Geography	66.3%	68.2%	0.829
Navigable River	25.3%	20.5%	0.544
Sea Coast	27.7%	25.0%	0.745
Roman Road	32.5%	31.8%	0.936

*Note:* The table shows that in the subsample used in columns 4-6 of Table A.9, royal and mesne boroughs have very similar rates of enfranchisement and trade geography. Yet, only royal boroughs in this subsample received Farm Grants.

<sup>‡</sup> “Other liberties” include freedom from tolls, Murage/Pavage, and rights to elect officials (see Appendix C.10 for a description of the latter two).

## C.9 Sample Splits by Status as “Taxation Borough”

In this section we perform an additional analysis for a more restrictive definition of ‘boroughs,’ relying on information contained in Willard (1933). In the period 1294-1336, a number of settlements occasionally paid extra-ordinary taxation on movable wealth at a higher “urban” rate relative to the rest of the realm. For example, in 1332, many urban settlements paid a tenth of their movable wealth, while the rest of the realm paid a rate of a fifteenth. Royal “chief taxers” were in charge of selecting the settlements that paid the higher rate. They classified these settlements as “cities,” “boroughs,” or as “vills,” with vills being less important (often rural) settlements that were occasionally selected to pay the higher rate. Willard (1933, pp. 418-424) observes that important and commercially active boroughs were more likely to be selected as “taxation boroughs” – urban settlements paying the higher rate.<sup>59</sup>

Willard (1933) provides the list of overall 212 settlements that – at least occasionally – paid the higher rate over the period 1294-1336. Moreover, he reports the nomenclature used by chief taxers when referring to these settlements: “borough,” “cities,” or “vills.”<sup>60</sup> Unfortunately, the list of settlements reported by Willard (1933) is incomplete, and the loss of data likely affected settlements that only occasionally paid the higher rate (i.e., less important settlements).<sup>61</sup> To ensure consistency we use a conservative coding of “taxation boroughs,” which also excludes less important settlements: We code as “Taxation boroughs” those 144 settlements that were explicitly named either “borough” or “city” in at least half of the instances in which they were subject to extra-ordinary taxation between 1294 and 1336.<sup>62</sup> These arguably represent the most important settlements for extra-ordinary taxation during the period when Parliament was established. Correspondingly 70% of these boroughs were enfranchised by 1348. This underlines the close connection between extra-ordinary taxation and parliamentary representation that we emphasized in Section 3.3 of the paper. This also gives rise to the concern that extra-ordinary taxation may have differed for royal vs mesne boroughs, either because the boroughs themselves were different

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<sup>59</sup>One reason for this higher rate was arguably the fact that movable wealth in commercial activity was harder to assess than the value of land in more rural communities. To compensate for the lower observability, the Crown imposed a higher tax rate (Willard, 1934, p. 9). Note that this differential taxation does not violate the principle of uniform extra-ordinary taxation across royal and mesne boroughs discussed in Section 3.3. All “taxation boroughs” – royal and mesne – contributed at the same (high) tax rate, and likewise all non-taxation boroughs contributed at the same (lower) rate.

<sup>60</sup>Note that virtually all the settlements listed in Willard (1933) were characterized by the presence of burgage tenure and are thus classified as ‘boroughs’ in our main dataset (see footnote 11 in the paper, as well as Ballard, 1913; Ballard and Tait, 1923; Tait, 1936; Letters et al., 2003). Thus, the settlements defined as ‘boroughs’ for the purpose of taxation are a subset of the settlements with burgage tenure.

<sup>61</sup>This is highlighted by the author himself, who reports that “There are too many gaps in the records of taxation...for any satisfactory investigation of the matter.” (Willard, 1933, p. 428). We confirmed this somewhat negative assessment by verifying the number of settlements that paid the higher rate in the county of Staffordshire: Slater (1985) lists 9 settlements that paid the higher rate, 3 more than those listed in Willard (1933).

<sup>62</sup>Our results are similar (but somewhat noisier) when we also include the less important settlements that were characterized as “vills” in the majority of cases.

or because the taxation procedure was not the same. If the same underlying differences led to Farm Grants, they would confound our results.<sup>63</sup> While we have already addressed this possibility both historically and empirically, the data on “taxation boroughs” allow us to perform additional checks.

In column 1 of Table A.11, we report our main results on enfranchisement for the subsample of “taxation boroughs.” This sample also includes the majority of Farm Grant boroughs (overall 57), and it is relatively balanced, including 73 royal and 71 mesne boroughs. Even within this subsample, Farm Grant boroughs are significantly more likely to be summoned to Parliament, with a coefficient of 0.334. This further addresses the concern that our results may be driven by Farm Grant boroughs merely being the (economically or militarily) most important boroughs that would have made it to Parliament anyway: When we only use the most important urban settlements in the eyes of the chief taxers, our results still go through.

One could still object that Farm Grant boroughs may have been the most important boroughs *among* the “taxation boroughs.” As a first pass at this issue, we exclude all “taxation boroughs”: Column 2 restricts the subsample to the remaining 410 boroughs in our main dataset. The coefficient on Farm Grants remains highly significant (but is somewhat smaller in magnitude). Again, one may object that within this subsample of less important boroughs, those with Farm Grants were the most important ones. This leads to the particularly restrictive subsample in column 3 of Table A.11, where we use only non-taxation *royal* boroughs and taxation *mesne* boroughs. In other words, we stack the odds against our results by dropping all royal boroughs that were deemed important by Medieval tax assessors while using only the important mesne boroughs. Even in this subsample, we find a statistically highly significant coefficient on Farm Grants with a magnitude of 0.357 that is similar to our baseline results. Note also that the coefficient on royal borough status is significant and *negative*. Thus, in the particularly restrictive subsample in column 3, royal boroughs without Farm Grants were actually much *less* likely to be summoned to Parliament than their mesne counterparts. Overall, the results in column 3 underline that it is unlikely that our findings on self-governance and enfranchisement are confounded by differential importance or by different extra-ordinary taxation for royal vs. mesne boroughs.

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<sup>63</sup>For example, Willard (1933) suggests that the criteria used by “chief taxers” to select settlements for the higher urban rate of extra-ordinary taxes may have been similar to the criteria used by sheriffs to select boroughs for parliamentary representation. If royal and mesne boroughs differed systematically along these criteria (e.g., economic importance), then this selection procedure would mechanically lead to our results. However, Willard’s (1933) view has been criticized by other historians, mainly by Tait (1936, pp. 356-7) and McKisack (1962). McKisack (1962, pp. 77-8) argues that “For purpose of taxation, the term ‘borough’ seems to have been interpreted in the widest possible sense, and many small towns which seldom or never returned members to parliament paid the rate of a tenth. [...] On the contrary, it was through the co-operation of the borough representatives with the knights of the shire that control of taxation might best be maintained.” Note that the argument by McKisack is in line with our reasoning that autonomous boroughs were enfranchised to ensure their cooperation in extra-ordinary taxation.

Table A.11: Sample Splits by Status as “Taxation Borough”

Dependent variable: Indicator for borough enfranchised by 1348			
Boroughs included:	(1) only Taxation Boroughs	(2) only non-Taxation Boroughs	(3) non-Taxation Royal Boroughs and Taxation Mesne Boroughs
Farm Grant 1348	0.334*** (0.092)	0.233*** (0.080)	0.357*** (0.091)
Royal borough	0.104 (0.101)	0.040 (0.038)	-0.466*** (0.064)
Mean Dep. Var.	0.70	0.07	0.34
R <sup>2</sup>	0.20	0.07	0.24
Observations	144	410	143
Royal boroughs	73	72	72
Mesne boroughs	71	338	71
Farm Grant boroughs	57	33	25

*Note:* The table uses the status as “Taxation borough” to perform various sample splits, showing that the coefficient on Farm Grants remains similar. Building on Willard (1933), we define as “Taxation boroughs” those important urban settlements that royal chief taxers (i) selected to pay the higher rate of extra-ordinary taxation and (ii) explicitly named as “boroughs” or “cities” in the majority of instances in which a settlement was subject to extra-ordinary taxation between 1294 and 1336. Overall, there are 144 taxation boroughs; 73 royal and 71 mesne. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

## C.10 Proxies for Organizational Capacity

Could our results be driven by (unobserved) organizational capacity of boroughs? In particular, better organized merchants may have been more successful at lobbying the king for both Farm Grants and representation in Parliament. In what follows, we address this issue using two proxies for the organizational capacity of boroughs. We first provide background on the history and data for each proxy, and then present our results.

*Boroughs’ Separate Rights to Elect Officials.* Our first proxy for organizational capacity is whether boroughs obtained the right to elect officials, independent of Farm Grants. As explained in the main text, Farm Grants already included the right to elect local officials. Some boroughs without Farm Grants obtained separate election rights, i.e., the right to elect local officials, *without* self-administered tax collection. In particular, the election of coroners and mayors was not included in Farm Grants (since these were not essential for tax collection). For example, the royal town of Dover elected a mayor by the second half of the 13th century without ever obtaining a Farm Grant. Dover’s mayor was not responsible for the collection of the farm (this responsibility fell on the king’s bailiffs), but rather was the representative of the community of burgesses (Reynolds, 1977, pp. 108-110).<sup>64</sup> A similar example is provided by the mesne borough of New Salisbury, in which a mayor was elected since 1249, but whose authority was limited by the bishop’s bailiff.<sup>65</sup>

<sup>64</sup>Over time, the mayor of Dover acquired prerogatives in the local administration of the borough. These prerogatives were, however, limited by the presence of royal officials. See the online version of the collection of volumes *History of Parliament* <http://historyofparliamentonline.org/volume/1386-1421/constituencies/dover> and <http://historyofparliamentonline.org/volume/1509-1558/constituencies/dover>.

<sup>65</sup>See <http://historyofparliamentonline.org/volume/1386-1421/constituencies/salisbury> and <http://historyofparlia->

In order to obtain the right to elect local officials, a borough's burgesses had to organize collective action in bringing forward their petition to the Crown or local lord. Thus, obtaining the right to elect officials is a proxy for organizational capacity. We code these liberties mainly from Ballard (1913) and Ballard and Tait (1923). We complement these datasets with information reported in the British History Online (<https://www.british-history.ac.uk>) and History of Parliament (<http://www.historyofparliamentonline.org>).

Overall in our dataset, 95 boroughs obtained separate rights to elect officials before 1348 (i.e., other than the election prerogatives included in Farm Grants). Among these, 50 boroughs also had Farm Grants – they typically obtained additional election rights such as mayor or coroner that were not crucial for tax collection. The remaining 45 boroughs got *only* rights to elect officials, but no Farm Grant by 1348. Another way to look at these numbers is via the composition of our main explanatory variable, “Farm Grant by 1348.” Overall, 90 boroughs obtained Farm Grants by 1348. Among these, there are 40 boroughs that never got a separate right to elect officials (i.e., only had the election rights included in Farm Grants), and 50 boroughs that got Farm Grants and (separate) rights to elect officials.<sup>66</sup>

*Boroughs' Rights to Collect Murage or Pavage.* Our second proxy for organizational capacity is whether boroughs obtain the right to collect Murage or Pavage. In the Middle Ages, the burden to repair town walls and streets lay with the community of burgesses. Royal grants of Murage (walls) and Pavage (streets) consisted of the right for burgesses to impose taxes on themselves and/or goods entering the town in order to finance the repairs of walls and streets (Ballard and Tait, 1923, p. lxviii). As with our first proxy above, the request by townsmen for Murage or Pavage grants required organizational capacity. We code the information on grants of Murage and Pavage from the Patent Rolls of the reigns of Henry III, Edward I, Edward II and Edward III. Access to these sources is available at <http://www.medievalgenealogy.org.uk/sources/rolls.shtml>.

Overall, 104 boroughs obtained the right to collect Murage or Pavage before 1348. Among these, 49 boroughs also had Farm Grants, and 55 boroughs had the right to collect Murage/Pavage, but did not obtain a Farm Grant by 1348.<sup>67</sup> Consequently, among the overall 90 boroughs with Farm Grant by 1348, 49 also had Murage or Pavage rights, and 41 boroughs had Farm Grants only.

*Empirical Results: Controlling for Organizational Capacity.* For direct comparability with our previous results, we keep all boroughs with Farm Grants in a single category, whether or not the

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mentonline.org/volume/1604-1629/constituencies/salisbury.

<sup>66</sup>The vast majority of boroughs (43 out of 50) with both election rights *and* Farm Grants first got Farm Grants and then *later* additional rights to elect officials. Only seven boroughs first got the right to elect officials and then received a Farm Grant. None of our results change when we exclude these seven boroughs.

<sup>67</sup>The vast majority of boroughs with Farm Grants and Murage/Pavage rights first obtained the former. Only five boroughs first got Murage/Pavage rights and then received a Farm Grant.

borough had additional election or Murage/Pavage rights.<sup>68</sup> For notational purposes, we label the variable “ $D_1$ : Farm Grant by 1348.” We label the two proxies for organizational capacity as follows: “ $D_2$ : Right to elect officials / no Farm Grant” (a categorical variable that is comprised of the 45 boroughs mentioned above that obtained the right to elect officials but did not get a Farm Grant by 1348) and “ $D_3$ : Murage or Pavage / no Farm Grant” (a categorical variable for the 55 boroughs that obtained Murage/Pavage rights but did not get a Farm Grant by 1348).

Table A.12 presents our results. In columns 1 and 2, we use the two proxies to check whether our main results – the relationship between Farm Grants and enfranchisement – may be confounded by organizational capacity. We use the baseline regression from column 1 in Table 3 in the paper as a reference point (where the coefficient on Farm Grant is 0.466). Column 1 in Table A.12 reports results when we control for the right to elect officials.<sup>69</sup> Two findings stand out: First, the coefficient on  $D_1$  is very similar to our main results in Table 3 in the paper. In other words, the relationship between Farm Grants and enfranchisement is virtually unchanged when we control for (separate) election rights. Second, the coefficient on  $D_2$  is less than half in magnitude compared to  $D_1$ , and this difference is statistically highly significant with a p-value of 0.004. The second result suggests that the right to elect officials is also associated with representation in Parliament, but to a lesser degree than Farm Grants. Coherent with our argument, this suggests that the right to collect taxes in itself (i.e., not just other election rights that came with Farm Grants) significantly augmented the probability that a borough was enfranchised.

Column 2 in Table A.12 presents the full sample results for Murage/Pavage rights ( $D_3$ ). The pattern is very similar to column 1: Adding  $D_3$  as a control does not affect the relationship between Farm Grants and enfranchisement. Also, the coefficient on Murage/Pavage is itself statistically significant but much smaller than the coefficient on Farm Grants (with the difference in coefficients being significant with a p-value smaller than 0.001).

In column 3 of Table A.12 we restrict the sample to the 95 boroughs that obtained the right to elect officials, i.e., towns that had proved their organizational capacity independent of (or in addition to) Farm Grants. Among these, 50 boroughs had both Farm Grants and the right to elect officials; the remaining 45 had only the right to elect officials. Even within this subsample of boroughs with ‘proven capacity to organize,’ the boroughs that also had Farm Grants were much more likely to be enfranchised. In fact, the coefficient is almost as large as in our main sample. This further suggests that it is unlikely that organizational capacity confounds our results. Finally, column 4 restricts the sample to the 104 boroughs that obtained Murage/Pavage rights,

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<sup>68</sup>For the right to elect officials, this choice is additionally motivated by the fact that Farm Grants already included important election rights.

<sup>69</sup>Interestingly, the right to elect officials is not related to trade geography: When running the regression from column 1 in Table 2 in the paper with  $D_2$  as dependent variable, the three trade geography variables are individually close to zero and jointly far from statistical significance, with a p-value of 0.464.

Table A.12: Proxies for Organizational Capacity: Right to Elect Officials and Murage/Pavage

Dependent variable: Indicator for borough enfranchised by 1348				
	(1)	(2)	(3)	(4)
Boroughs included:	all	all	only boroughs with separate rights to... elect local officials	Murage/Pavage
$D_1$ : Farm Grant 1348	0.492*** (0.063)	0.490*** (0.064)	0.425*** (0.135)	0.554*** (0.126)
$D_2$ : Right to elect officials / no Farm Grant	0.229*** (0.073)			
$D_3$ : Murage or Pavage / no Farm Grant		0.158** (0.066)		
<i>p</i> -value for difference between $D_1$ and $D_2/D_3$	0.004	<0.001		
Royal borough	0.147*** (0.050)	0.146*** (0.051)	0.176 (0.138)	-0.011 (0.131)
Number of boroughs with $D_1 = 1$	90	90	50	49
Number of boroughs with $D_2/D_3 = 1$	45	55		
Mean Dep. Var.	0.23	0.23	0.64	0.55
R <sup>2</sup>	0.28	0.27	0.34	0.30
Observations	554	554	95	104

*Note:* The table controls for two proxies for boroughs' organizational capacity: Whether they obtained the right to elect officials (independent of Farm Grants) and whether they obtained the right to collect Murage or Pavage taxes to repair town walls and/or roads. Columns 1 and 2 show that our main results (i.e., the coefficient on Farm Grant in col 1 in Table 3) do not change when controlling for these proxies. Columns 3 and 4 show that even when restricting the sample to boroughs that obtained the right to elect officials or Murage/Pavage (i.e., towns that had proved their organizational capacity), the coefficient on Farm Grants is very similar to the main result in Table 3. All regressions are run at the borough level. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

among which 49 also held Farm Grants. We find that Farm Grant boroughs were much more likely to be represented in Parliament – with a coefficient size that is even slightly larger than in the full sample. This complements our results above, suggesting that townsmen's ability to organize collective actions and obtain other liberties mattered, but that Farm Grants were a more powerful stepping stone towards parliamentary representation.

### C.11 Farm Grants and Enfranchisement: Pre-Norman Towns

During the 10th century, the Anglo-Saxon kings summoned general assemblies (*witans*) to take counsel on matters such as customs, legislation, and warfare. These assemblies were typically composed of lay and religious power holders: earls, archbishops, bishops, abbots and *thegns* – militarily powerful men who exercised authority in rural and (some) urban localities (i.e., similar to Norman barons in the 11th century). The historical record includes no indication of direct representation of towns in *witans* (Loyn, 1984; Maddicott, 2010).<sup>70</sup> In one occasion (in ca. 965), historians suggests that *thegns* from the militarily powerful Anglo-Saxon *burhs* (fortified towns)

<sup>70</sup>Towns were directly represented in assemblies in Western Europe only after the 11th century (Marongiu and Woolf, 1968).

were explicitly summoned to attend the witan (Maddicott, 2010, pp. 5-11). While this does not constitute a *direct* representation of towns, it nevertheless could imply that important military centers had a history of representation before the Norman Conquest. This could confound our results if two conditions hold: i) there was a “legacy of representation,” i.e., towns that were (indirectly) represented in assemblies before the Norman Conquest were also more likely to be summoned to Parliament after the 13th century; and ii) pre-Norman military centers were more likely to obtain Farm Grants after the 11th century.

To address this concern, we create an indicator for the 52 fortified pre-Norman towns (*burhs*) listed in Hill (1981, Figures 150 and 235). Table A.13 presents our main results on Farm Grants and representation in Parliament, controlling for pre-Norman towns. For direct comparison, column 1 replicates our baseline result (from column 1 in Table 3). Column 2 adds the control for pre-Norman fortified towns (*burhs*). We find that the coefficient on Farm Grants is essentially unchanged; the coefficient on *burhs* is also statistically significant, but smaller than the one for Farm Grants. In column 3, we use an alternative, broader, control for pre-Norman urban settlements – locations that were explicitly listed as ‘boroughs’ in the Domesday Book (see Appendix C.8).<sup>71</sup> The results are remarkably similar to those in column 2.

Overall, the results in Table A.13 are in line with power holders being enfranchised in assemblies and parliaments (North, Wallis, and Weingast, 2009) – where “power holders” before the 11th century included predominantly military and religious authorities, while merchant towns (especially those with self-governance due to Farm Grants) ascended to parliaments in the late Medieval period.

## **C.12 Farm Grants and Enfranchisement: Additional Results**

### *Enfranchisement in the ‘Model Parliament’ in 1295*

Table A.14 shows that our results for enfranchisement hold also when we focus on the ‘Model Parliament’ of 1295. For this purpose, we restrict the sample to boroughs with documented existence by 1295, which reduces the number of observations to 460 (136 royal boroughs and 324 mesne boroughs). Our main explanatory variable is whether a borough had received a Farm Grant by 1295. Column 1 shows that Farm Grant boroughs were significantly more likely to be represented in the ‘Model Parliament.’ The coefficient is almost identical for the subset of royal boroughs (col 2). Next, column 3 shows that there is a strong (reduced-form) relationship between trade geography and enfranchisement in royal boroughs. Column 4 reports our placebo exercise – the reduced-form relationship does not hold in mesne boroughs, where Farm Grants were largely absent.<sup>72</sup>

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<sup>71</sup>The vast majority of *burhs* (45 out of 52) became Domesday Boroughs.

<sup>72</sup>The fact that our placebo check works equally well for the ‘Model Parliament’ in 1295 allows us to exclude a possible alternative mechanism: One may worry early enfranchisement of mesne boroughs was actually also driven by trade geography, but that the subsequent strategic enfranchisement of small mesne boroughs (see Appendix B.9) mechanically attenuates the relationship between trade and Parliament in mesne territories. In fact, the number of

Table A.13: Proxies for Pre-Norman Military and Administrative Towns

Dependent variable: Indicator for borough enfranchised by 1348			
	(1)	(2)	(3)
Farm Grant 1348	0.466*** (0.063)	0.435*** (0.062)	0.432*** (0.060)
pre-Norman Fortified Towns		0.313*** (0.066)	
Domesday Borough			0.300*** (0.051)
Royal borough	0.154*** (0.050)	0.091* (0.047)	0.075 (0.046)
Mean Dep. Var.	0.23	0.23	0.23
R <sup>2</sup>	0.26	0.30	0.33
Observations	554	554	554

*Note:* The table controls for two proxies for pre-Norman towns: Fortified military towns (*burhs*) and Domesday Boroughs (i.e., settlements that were explicitly listed as ‘boroughs’ in the Domesday Book in 1086). Columns 2 and 3 show that our main result (i.e., the coefficient on Farm Grant in col 1) does not change when controlling for these indicator variables. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

#### *Duration of Farm Grants, Restriction on Royal Officials, and Enfranchisement in 1700*

Table A.15 provides various additional robustness checks. In column 1, we exploit the length of the time period during which boroughs held Farm Grants until 1348. We restrict the sample to the 90 boroughs that had received a Farm Grants by 1348.<sup>73</sup> We find a strong positive coefficient: Doubling the years during which a borough held a Farm Grant increases the probability of being enfranchised by 9.9 p.p. (relative to a mean of 0.71 – the majority of boroughs with Farm Grants were represented in Parliament). Next, columns 2 and 3 provide the regressions that correspond to Figure 7 in the paper: The coefficient on Farm Grant is much larger for boroughs that had further constraints on sheriffs entering the borough (and thus restricted possibilities for central authorities to coordinate and enforce extra-ordinary taxation).<sup>74</sup> Finally, column 4 repeats the full-sample regression for enfranchisement by 1700 and finds a strong positive coefficient on Farm Grants, which is very similar to the results for 1348, in both magnitude and significance.

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enfranchised mesne boroughs (that keep their seats in Parliament until the 1830s – see footnote 35) increases from 98 in 1295 to 130 in 1348. However, column 4 shows that even the initially enfranchised mesne boroughs were not more likely to have trade geography.

<sup>73</sup>In a few cases, Farm Grants were revoked for intermittent years and then re-granted (see footnote 17 in the paper). We exclude these years when coding the duration of Farm Grants.

<sup>74</sup>Because these liberties concerned the shire administration, they were granted by the Crown independently of a borough’s ownership (royal or mesne). Thus, in principle, mesne boroughs could also obtain restrictions on entry by royal officials. However, mesne boroughs rarely obtained such liberties. A likely reason is that very few mesne boroughs obtained Farm Grants from their lords; the vast majority remained under their lord’s administration for ordinary taxation. Thus, few mesne boroughs became independent urban communities that were capable to obtain separation from the shire administration.

Table A.14: Farm Grants and Representation in the Model Parliament in 1295

Dependent variable: Indicator for borough enfranchised in 1295				
	(1)	(2)	(3)	(4)
Boroughs included:	Boroughs founded by 1295			
	all	all	royal	mesne
Farm Grant 1295	0.360*** (0.068)	0.365*** (0.067)		
Royal borough	0.135*** (0.050)	0.133*** (0.049)		
Navigable River			0.286*** (0.086)	0.020 (0.056)
Sea Coast			0.217** (0.093)	0.052 (0.052)
Roman Road			0.348*** (0.078)	-0.030 (0.038)
<i>p-value joint significance River, Coast, Road</i>			[0.000]	[0.578]
County FE		✓		
Terrain Controls		✓		
Mean Dep. Var.	0.21	0.21	0.42	0.12
R <sup>2</sup>	0.19	0.31	0.19	0.01
Observations	460	460	136	324

*Note:* The table shows that our results for enfranchisement (Table 3) also hold for the Model Parliament of 1295. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

### *Boroughs that Lost Enfranchisement*

Table A.16 provides a robustness check that uses an alternative, broader coding of the dummy for enfranchisement, related to the issue explained in footnote 35 in the paper: Our main results code as enfranchised only boroughs that retained their seats in Parliament until 1830 (not counting those boroughs as enfranchised that let their franchise expire and were later denied re-enfranchisement). In contrast, Table A.16 codes as enfranchised *all* boroughs that were represented in Parliament at least once by the respective date (1295 / 1348), even if they later lost the franchise. This gives 24 and 32 additional enfranchised boroughs in 1295 and 1348, respectively. Columns 1 and 2 show that results are essentially unchanged for the ‘Model Parliament’ in 1295 (the comparison here are the specifications from cols 1 and 2 in Table A.15). Next, columns 3 and 4 in Table A.16 repeat the specifications from cols 1 and 3 in Table 3 in the paper. Again, results are nearly identical. Consequently, our results hold (both in terms of significance and magnitude) independent of how we code boroughs that lost their seats in Parliament by the early 19th century.

Table A.15: Representation in Parliament: Additional Results

Dependent variable: Indicator for borough enfranchised by 1348 / 1700				
	(1)	(2)	(3)	(4)
Dep.Var.: Enfranchised by	1348	1348	1348	1700
Boroughs included:	Farm Grant by 1348	all	royal	all
ln(years grant 1066-1348)	0.099*** (0.037)			
Farm Grant 1348				0.416*** (0.063)
Grant and constraint on sheriff <sup>†</sup>		0.621*** (0.070)	0.640*** (0.076)	
Grant, no constraint on sheriff <sup>†</sup>		0.368*** (0.075)	0.477*** (0.091)	
Royal borough	0.336** (0.139)	0.137*** (0.049)		0.191*** (0.057)
Mean Dep. Var.	0.71	0.23	0.51	0.35
R <sup>2</sup>	0.21	0.28	0.33	0.20
Observations	90	554	145	550

*Note:* The table provides additional results for enfranchisement: The earlier Farm Grants were obtained, the more likely was the borough to be represented in Parliament (col 1). Also, coefficient sizes are much larger for boroughs that also had constraints on sheriffs entering the borough (and thus restricted possibilities for central authorities to enforce extra-ordinary taxation – cols 2 and 3). All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>†</sup> Constraints on sheriff is a dummy variable that takes on value one if a borough possessed additional 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*).

Table A.16: Representation in Parliament: Include Boroughs that Later Lost Franchise

Dependent variable: Indicator for borough enfranchised by 1295 / 1348				
	(1)	(2)	(3)	(4)
Dep.Var.: Enfranchised by	1295	1295	1348	1348
Boroughs included:	founded by 1295			
	all	royal	all	royal
Farm Grant 1295	0.320*** (0.069)	0.383*** (0.080)		
Farm Grant 1348			0.448*** (0.063)	0.500*** (0.071)
Royal borough	0.194*** (0.055)		0.196*** (0.055)	
Mean Dep. Var.	0.26	0.50	0.29	0.59
R <sup>2</sup>	0.17	0.15	0.25	0.26
Observations	460	136	554	145

*Note:* Columns 1 and 2 repeat the specifications from cols 1 and 2 Table A.15 in the appendix, and columns 3 and 4 repeat the specifications from cols 1 and 3 in Table 3 in the paper. Here, enfranchisement is defined more broadly: The previous results in Tables A.15 and 3 coded as enfranchised only boroughs that retained their seats in Parliament until 1830 (and not counting those boroughs as enfranchised that lost their franchise – see footnote 35 in the paper). The present table codes as enfranchised all boroughs that were represented in Parliament at least once by the respective date (1295 / 1348), even if they later lost the franchise. This gives 24 (32) additional enfranchised boroughs in cols 1 and 2 (3 and 4).

## D Farm Grants and Institutional Outcomes after 1400: Additional Results

### D.1 MP Elections 1604-1831

This section complements our analysis of local MP elections from Section 6.3 in the paper. We extend the coding of two of our proxies for open elections to a longer time horizon (going back to the 17th century): *Openness* (the extent to which a borough's choice of MP candidates was subject to the control of a patron) and *Broad Franchise* (the breadth of the electorate that voted for MPs). Appendix B.11 describes the construction of these variables in detail. The number of observations varies across the different time periods, depending on the availability of the necessary information in the sources listed above.

Table A.17 uses a modification of the openness index that was defined for values 1 to 3 in Table 6. Here, we use dummies that take on value one if a borough's MP elections are classified as "open" (values strictly greater than 2 in the openness index).<sup>75</sup> Also, Table A.17 examines a longer time period, using the openness measure for five sub-periods between 1690 and 1831. To account for potential changes in regional socio-economic conditions over time, we include county fixed effects for each sub-period.<sup>76</sup> Column 1 shows that our results for the openness index for 1820-31 from Table 6 in the paper hold also when we use the dummy. The coefficient on Farm Grants is statistically highly significant, and its magnitude is large: Boroughs with Medieval Farm Grants (that were also represented in Parliament) were about 15 p.p. more likely to have open elections, relative to a sample mean of 0.15. Next, we repeat the analysis using the election openness dummy for the periods 1790-1820 (col 2), 1754-1790 (col 3), 1715-54 (col 4), and 1690-1715 (cols 5). We find coefficients on Farm Grants of very similar magnitude throughout.<sup>77</sup> Thus, our results imply that boroughs with Medieval Farm Grants had significantly more open elections of their MPs over a long time span between 1690 and 1831.

Table A.18 extends our *Broad Franchise* measure from Table 6 for six additional time periods, reaching back to 1604.<sup>78</sup> On average, about 70% of boroughs had a broad franchise, and this

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<sup>75</sup>This addresses concerns about the implicit linearity assumption when using the full index (as in column 1 of Table 6).

<sup>76</sup>The results are nearly identical when we exclude county fixed effects.

<sup>77</sup>As the mean of the dependent variable shows, a larger fraction of boroughs had open elections in the earliest period that starts in 1690. A likely explanation is that in 1690 – following the Glorious Revolution – the old Charters of Incorporation were reestablished after the kings' attempt to change them in the 1640s and 1680s (in an attempt to manipulate the election of MPs): Both Charles I and James II had forced numerous incorporated boroughs to hand over their Charters of Incorporation. New charters were then issued with the objective of imposing mayors and aldermen sympathetic to the royal cause (Porritt, 1909; Howell, 1982; Miller, 1983). Following the Glorious Revolution in 1688, boroughs petitioned king and Parliament to have their old charters reestablished (Henning, 1983; Cruickshanks et al., 2002). This process resulted in fresh contests for city councils and, arguably, boroughs' parliamentary seats.

<sup>78</sup>Note that we can extend the *Broad Franchise* measure further back in time than the above *Openness* measure. *Broad Franchise* is based on an objective measure (boroughs' franchise rules), for which we have data since 1604. In contrast, *Openness* is based on the accounts of boroughs' internal politics, as reported in the collection of books *History of Parliament*. In this collection, there is a clearer distinction between "open" and "close" boroughs for the

Table A.17: Openness of MP Elections 1690-1831

Dependent variable: Indicator for Open MP elections					
	(1)	(2)	(3)	(4)	(5)
Period considered	1820-31	1790-1820	1754-90	1715-54	1690-1715
Farm Grant 1348	0.149** (0.063)	0.172** (0.068)	0.188*** (0.070)	0.149* (0.076)	0.248** (0.100)
County FE	✓	✓	✓	✓	✓
Mean Dep. Var.	0.15	0.20	0.23	0.25	0.37
R <sup>2</sup>	0.30	0.34	0.31	0.33	0.29
Observations	185	184	185	185	161

*Note:* The table shows that boroughs with Medieval Farm Grants had more open elections of their MPs over the period 1690-1831. The construction of the dependent variables is described in Appendix B.11. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The number of observations varies across the different time periods, depending on the availability of the necessary information in the sources listed in Appendix B.11.

fraction is stable between the early 17th and the 19th century. Across the various periods, boroughs with Farm Grants were about 20% more likely to have a broad franchise.<sup>79</sup> In combination, the results from Tables A.17 and A.18 imply that, between the 17th and 19th century, boroughs with Medieval Farm Grants were both significantly more open in terms of nominating candidates for MP seats, and had a broader electorate that voted for MP candidates.

## D.2 Volunteer Troops During the Civil War

In Table A.19, we examine the reduced-form relationship between trade geography and *Volunteers* to support parliamentarians during the Civil War. Column 1 shows a strong relationship for boroughs that were royal in Medieval times – with a p-value below 0.001 for the joint significance of the three geography variables. In contrast, there is no reduced-form relationship for our ‘placebo’ mesne boroughs (col 2), and this non-result is also obtained when using entropy weights (col 3). These results complement the findings in Table 5 in the paper, which show that merchant boroughs with Farm Grants were particularly likely to support parliamentarians during the Civil War. The placebo results presented here 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 thus suggest that Medieval self-governance had a long-term effect on the support for Parliament.

period 1690-1832 than for the pre-Glorious Revolution period. For consistency, we therefore start the construction of our *Openness* index in 1690.

<sup>79</sup>As in Table A.17, we present the results with county fixed effects to account for potential changes in regional socio-economic conditions over time. Results without fixed effects are almost identical and available upon request.

Table A.18: Franchise Rules in MP Elections 1604-1831

Dependent variable: Indicator for Broad Franchise over the indicated period							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Period considered	1820-31	1790-1820	1754-90	1715-54	1690-1715	1660-90	1604-29
Farm Grant 1348	0.143** (0.071)	0.208*** (0.067)	0.200*** (0.067)	0.199*** (0.067)	0.237*** (0.057)	0.300*** (0.064)	0.147** (0.073)
County FE	✓	✓	✓	✓	✓	✓	✓
Mean Dep. Var.	0.69	0.71	0.72	0.73	0.76	0.71	0.70
R <sup>2</sup>	0.28	0.32	0.32	0.30	0.32	0.38	0.33
Observations	185	185	184	186	185	184	176

*Note:* The table shows that boroughs with Medieval Farm Grants had a broader franchise electing their MPs over the period 1604-1831. The construction of the dependent variables is described in Appendix B.11. All regressions are run at the borough level. Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. The number of observations varies across the different time periods, depending on the availability of the necessary information in the sources listed in Appendix B.11.

### D.3 Obstructions to Trade

This section provides detailed information on our coding of trade obstructions and presents robustness checks of the results shown in Table 8 in the paper.

*Background and Data Description.* For each enfranchised borough with a Farm Grant by 1348, we collect information on the occurrence of persistent negative shocks to trade *after* the borough received its Farm Grant. 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. Second, the obstructions of parts of navigable rivers due to water mills. Information about these events is recorded in the constituencies’ descriptions for the period 1386-1832 available at <http://www.historyofparliamentonline.org>. Typically, such events were recorded because of petitions by burgesses asking for (i) a reduction of the yearly farm, (ii) subsidies for repairs, and (iii) exemptions from extra-ordinary taxation. For instance, Dunwich was submerged by the sea in 1354 and had its harbor permanently obstructed as a result. Dunwich saw its farm reduced from £65 in 1357 to £12 under Henry VI. By 1832, “coastal erosion had reduced Dunwich to a small village.”<sup>80</sup> Similarly, New Shoreham, located at the mouth of the river Adur, suffered both from the silting of the river and obstructions to its harbor in the 15th and 16th centuries. As a consequence of these shocks, the town was exempted from the payment of several taxes.<sup>81</sup>

Obstructions of river transport by watermills were also common, especially after the 14th cen-

<sup>80</sup>See <http://www.historyofparliamentonline.org/volume/1820-1832/constituencies/dunwich>. For a similar example, see the entry for Lyme Regis.

<sup>81</sup>See <http://www.historyofparliamentonline.org/volume/1509-1558/constituencies/new-shoreham>.

Table A.19: Farm Grants and Support for Parliamentarians during the Civil War: Reduced Form

Dep. Var.: Indicator for pro-Parliamentary volunteer troops raised by borough in 1642

	(1)	(2)	(3)
	— Reduced Form —		
Boroughs included:	royal	mesne	mesne
Note:			E-weights <sup>§</sup>
Navigable River	0.163** (0.069)	0.016 (0.028)	0.011 (0.025)
Sea Coast	0.027 (0.061)	0.015 (0.021)	0.030 (0.027)
Roman Road	0.223*** (0.061)	0.004 (0.017)	-0.011 (0.018)
<i>p-value: joint significance</i> <i>River, Coast, Road</i>	[<0.001]	[0.880]	[0.512]
Mean Dep. Var.	0.14	0.02	0.03
R <sup>2</sup>	0.14	0.00	0.01
Observations	144	406	406

*Note:* This table shows reduced-form results corresponding to the 2SLS results in column 6 of Table 5. 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.

ture. Watermills were used for agricultural purposes and in the production of textiles. They required weirs (or milldams) across rivers, which had a significant negative impact on navigability (Langdon, 2000). Goods had to be unloaded and loaded again at every mill – a process known as “backing” (Jones, 2000). This slowed down water transport and made it more expensive, thus hampering trade for the affected upstream and downstream boroughs. Often, lords (including the king) made the decision whether to build a mill on their demesne. This decision was made in disregard of the negative externalities it generated on other boroughs located on the same river. For example, Huntingdon filed a petition in the 15th century because of the obstructions to the river Great Ouse caused by watermills between St. Neots and St. Ives. The petition led to a reduction of Huntingdon’s annual farm by about 30%, while the obstruction by the watermills remained.<sup>82</sup> Information on obstructions of navigable rivers are taken from Jones (2000) and Langdon (2000).<sup>83</sup> By the 14th century, the obstructions caused by the numerous water mills prompted complaints by burgesses (often voiced in parliament). Starting with the Magna Carta, numerous legislations attempted to regulate the construction of weirs, but failed notoriously (Jones, 2000).<sup>84</sup> Special commissions

<sup>82</sup>See <http://www.historyofparliamentonline.org/volume/1509-1558/constituencies/huntingdon>.

<sup>83</sup>Jones (2000) covers all rivers except those of the Humber system. To complement these data, we rely on the constituency descriptions contained in the History of Parliament, and we analyze the 14th century Patent Rolls that contain complaints by burgesses about obstructions, as well as information about the creation of royal commissions (see below).

<sup>84</sup>Moreover, no evidence survives to indicate the existence of a market for property rights; arguably because of the

(*de walliis et fossatis*) were also created to investigate and remove obstructions. However, they proved largely ineffective as explicitly stated in the Patent Rolls of 1328 for the case of the river Don and further suggested by the nine commissions that were set up between 1302 and 1377 for the navigability of the Thames between Oxford and Reading (Jones, 2000).

We code negative shocks to seaports and rivers of boroughs with Farm Grants between the 13th and 17th centuries – the variable *Trade Obstruction*. These shocks typically had a detrimental economic effect that lasted for centuries (Langdon, 2000). Among the 90 boroughs that had received Farm Grants by 1348, we count 17 boroughs (all royal) that filed petitions after suffering trade obstructions. All obstructions occurred *after* these boroughs had obtained their Farm Grants.

*Additional Results on Trade Obstruction.* Among the 17 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.20 replicates Table 8 in the paper, excluding these five boroughs. For the plausibility check in the first four columns, the results are very similar to those in the paper.<sup>85</sup> The long-run outcomes in columns 5 and 6 are very similar for Farm Grant boroughs with and without trade obstruction. In column 7, the predictive power of Farm Grants is actually stronger for the 12 boroughs that experienced trade obstructions after 1348.

#### D.4 Clustering and Spatial Correlation

Table A.21 replicates our main results, accounting for possible spatial dependence of error terms. For direct comparison, Panel A shows our main results (OLS with robust standard errors), referring to each respective specification in the table header. Panel B uses clustering, allowing standard errors to be correlated within counties. This could arise, for example, if decisions about Farm Grants and outcome variables (such as enfranchisement) were affected by county characteristics. The standard errors in Panel B are very similar to those in Panel A. Next, Panel C allows for spatial correlation of error terms following Conley (1999). This addresses the concern that unobserved local characteristics may be correlated with both Farm Grants and later institutional outcomes. The analysis in Panel C uses a weighting matrix that is based on each borough's geographic location. We consider boroughs with less than 2 degrees distance (about 220km) as 'neighbors,' assigning them a non-zero spatial weight. Again, the standard errors are very similar to those in the baseline specifications (Panel A).<sup>86</sup> Overall, the results in Table A.21 suggest that our baseline specification with robust standard errors is sufficient.

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large number of stakeholders involved (individual boroughs and lords).

<sup>85</sup>If anything, boroughs that later had their trade obstructed started off with *higher* taxable wealth (col 1). Yet, they were significantly less commercial and had lower population sizes after the obstructions (cols 3 and 4).

<sup>86</sup>In Panel C, we use the `spatwmat` and `spatreg` commands in Stata. The results are almost identical when we use instead the `acreg` command from Colella, Lalive, Sakalli, and Thoenig (2019). Results are also robust to using larger (or smaller) distance cutoffs.

Table A.20: Obstructions of Trade after Farm Grants

Dependent variable as indicated in table header							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Plausibility checks				Long-run institutional outcomes		
Dependent variable:	Pre-1348 outcomes		Post-1348 outcomes		Volunteer troops during Civil War	Openness of MP elections 1820-31 <sup>‡</sup>	Vote share for Great Reform Act 1832
	ln(Taxable Wealth in 1086)	Commercial Importance 14C <sup>†</sup>	Trade employment share in 1831	Population in 17th century			
Farm Grant, no obstruction	0.592*** (0.211)	1.546*** (0.185)	0.086*** (0.021)	1.027*** (0.150)	0.230*** (0.052)	0.727*** (0.171)	0.251*** (0.073)
Farm Grant, trade obstructed	1.420*** (0.419)	1.368*** (0.327)	0.009 (0.027)	0.209 (0.340)	0.230* (0.126)	0.570** (0.243)	0.431*** (0.106)
<i>p-value: test for equality of coefficients</i>	<i>[0.072]</i>	<i>[0.634]</i>	<i>[0.013]</i>	<i>[0.026]</i>	<i>[1.000]</i>	<i>[0.565]</i>	<i>[0.109]</i>
Mean Dep. Var.	1.68	-0.02	0.39	6.89	0.06	-0.00	0.57
R <sup>2</sup>	0.05	0.32	0.09	0.17	0.13	0.11	0.09
Observations	349	549	185	398	544	180	173

Note: The table replicates Table 8 from the paper, but it drops 5 boroughs where trade was obstructed already before 1348 (although after the respective borough had received a Farm Grant). 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 6 in the paper. The variable has mean zero and standard deviation 1.

## D.5 Controlling for Taxable Wealth in 1086

This appendix section shows that all our results hold when we control for taxable wealth in 1086 from the Domesday Book – despite the fact that this reduces the sample size. Table A.22 checks the robustness of our results on enfranchisement (Table 3 in the paper) and on long-run institutional outcomes (Tables 4-7).

Panel A in Table A.22 controls for log taxable wealth, using all boroughs with available data on taxable wealth. Panel B includes only boroughs whose taxable wealth was between the 10th and 90th percentile.<sup>87</sup> The wealth distributions corresponding to the samples in Panel A and B are shown in Sample 1 and 2 in Figure 5 in the paper, respectively. All coefficient estimates on Farm Grants confirm our main results (see Panel A of Table A.21 for comparison). In addition, the coefficients on log taxable wealth are quantitatively small throughout, and statistically insignificant in most regressions in Table A.22. This makes it unlikely that our long-run results are confounded by the initial wealth of boroughs at the time of the Norman Conquest.

<sup>87</sup>The maximum number of observations is 354 boroughs in Panel A and 296 in Panel B. These enter in the regression in column 1. In columns 2-5 the number of observations is lower due to data availability – only incorporated boroughs in col 2, and only enfranchised boroughs in cols 4 and 5 (in the latter, with available data on MP voting).

Table A.21: Main Results: Clustering and Spatial Correlation

Dependent variable as indicated in table header					
	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Seat in Parliament by 1348	Influence of king on local elections 15-17C	Volunteer troops during Civil War	Openness of MP elections 1820-31 <sup>‡</sup>	Vote share for Great Reform Act 1832
Reg. in paper:	Table 3, col 1	Table 4, col 1	Table 5, col 1	Table 6, col 5	Table 7, col 2
Panel A: Main Results (OLS with robust standard errors)					
Farm Grant 1348	0.466*** (0.063)	-0.222** (0.104)	0.201*** (0.045)	0.674*** (0.148)	0.157** (0.070)
R <sup>2</sup>	0.26	0.03	0.12	0.10	0.16
Observations	554	158	550	184	175
Panel B: Clustered Standard Errors (at the county level)					
Farm Grant 1348	0.466*** (0.082)	-0.222** (0.098)	0.201*** (0.054)	0.674*** (0.126)	0.157** (0.060)
R <sup>2</sup>	0.26	0.03	0.12	0.10	0.16
Observations	554	158	550	184	175
Panel C: Accounting for Spatial Correlation					
Farm Grant 1348	0.466*** (0.051)	-0.222** (0.101)	0.201*** (0.030)	0.557*** (0.135)	0.162** (0.070)
Observations	554	158	550	184	175

*Note:* The table replicates our main results (which are run by OLS with robust standard errors and reported in Panel A), clustering standard errors at the county level (Panel B) and accounting for spatial correlation (Panel C). For each column, the header lists the table in the paper that runs the same regression, and each regression includes the same controls as those used in the corresponding tables in the paper. The coefficients in Panel C are estimated by maximum likelihood, using each borough's geographic location to derive the weighting matrix. All boroughs with distance less than 2 degrees ( $\approx 220$ km) are considered spatially contiguous and are assigned a nonzero spatial weight. Standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

<sup>‡</sup> First principle component of the four proxies for open MP elections used in Table 6 in the paper. The variable has mean zero and standard deviation 1.

## D.6 Matching Estimation for Long-Run Results

In Table A.23 we perform propensity score matching by trade geography for our long-run results (for completeness, we also include enfranchisement in 1348 in column 1). The ‘treatment group’ are royal boroughs with Farm Grants – altogether 74 in the full sample of 554 boroughs that existed by 1348. For each ‘treated’ borough, we use propensity score matching to identify a mesne boroughs that had exactly the same trade geography (for example, location on river and Roman road, but not on the sea coast).<sup>88</sup> The coefficient on *Farm Grant* in Table A.23 thus reflects the difference in the respective outcome variable between royal boroughs with Farm Grants and

<sup>88</sup>Note that this analysis excludes the 71 royal boroughs without Farm Grants, because we want to restrict attention to mesne boroughs as ‘control group.’ We also exclude the 16 mesne boroughs that received Farm Grants (but none of our results depend on this). This leaves a maximum of 467 (=554-71-16) observations, which include 393 mesne boroughs.

Table A.22: Main Results: Controlling for Taxable Wealth in 1086

Dependent variable as indicated in table header					
	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Seat in Parliament by 1348	Influence of king on local elections 15-17C	Volunteer troops during Civil War	Openness of MP elections 1820-31 <sup>‡</sup>	Vote share for Great Reform Act 1832
Reg. in paper:	Table 3, col 1	Table 4, col 1	Table 5, col 1	Table 6, col 5	Table 7, col 2
Panel A: All boroughs with data on taxable wealth					
Farm Grant 1348	0.405*** (0.082)	-0.297** (0.120)	0.198*** (0.059)	0.486** (0.190)	0.153 (0.097)
ln(Taxable wealth in 1086)	0.022 (0.018)	-0.072** (0.035)	0.008 (0.011)	0.078 (0.072)	0.060 (0.036)
R <sup>2</sup>	0.25	0.11	0.13	0.08	0.16
Observations	354	94	354	104	100
Panel B: Taxable wealth in 1086 between 10th and 90th percentile					
Farm Grant 1348	0.452*** (0.089)	-0.269** (0.128)	0.234*** (0.069)	0.396* (0.219)	0.223** (0.106)
ln(Taxable wealth in 1086)	-0.006 (0.023)	-0.060 (0.061)	-0.003 (0.013)	0.120 (0.099)	0.104** (0.052)
R <sup>2</sup>	0.27	0.07	0.17	0.06	0.24
Observations	296	74	296	82	79

*Note:* In Panel A, the table replicates our main results (see Panel A of Table A.21), controlling for each borough's (log) taxable wealth from the Domesday Book in 1086. Panel B includes only boroughs whose taxable wealth was between the 10th and 90th percentile. See Sample 1 and Sample 2 in Figure 5 in the paper for the corresponding distributions of wealth). Robust standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

<sup>‡</sup> First principle component of the four proxies for open MP elections used in Table 6 in the paper. The variable has mean zero and standard deviation 1.

identical (in terms of trade geography) mesne boroughs without Farm Grants. For representation in Parliament (col 1), volunteer troops during the Civil War (col 3), and openness of MP elections (col 4) we find very similar coefficients as in the paper. For influence of the king (col 2 – where the sample is the smallest) the coefficient is negative, as in Table 4, but quantitatively somewhat smaller and statistically insignificant. On the other hand, for votes during the Great Reform Act (col 5) we find a coefficient that is larger than in Table 7 in the paper. Overall, the results with (exact) matching confirm our main findings.

Table A.23: Matching Results

Dependent variable as indicated in table header					
Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Seat in Parliament by 1348	Influence of king on local elections 15-17C	Volunteer troops during Civil War	Openness of MP elections 1820-31 <sup>‡</sup>	Vote share for Great Reform Act 1832
Farm Grant 1348	0.475*** (0.084)	-0.142 (0.127)	0.139*** (0.034)	0.515** (0.238)	0.248** (0.112)
Mean of dep. var.:	0.231	0.378	0.058	0.092	0.597
Observations	467	127	463	144	139
'Treated' obs. (royal boroughs with Farm Grant)	74	55	73	59	58
Pool of 'Control' obs. (mesne boroughs without Farm Grant)	393	72	390	85	81

*Note:* The table replicates our main results from Tables 3-7 in the paper, performing propensity score matching with one (exact) match. The 'treatment group' are royal boroughs with Farm Grants; the 'control group' are mesne boroughs (without Farm Grants) with the *same* trade geography as each 'treated' borough. Robust standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

<sup>‡</sup> First principle component of the four proxies for open MP elections used in Table 6 in the paper. The variable has mean zero and standard deviation 1.

## E Municipal Liberties and Parliaments: Detail on Individual Countries

This appendix complements Section 7 in the paper. Here, we provide a detailed discussion of the relationship between municipal autonomy and parliaments across individual countries and regions in Western Europe.

France. In contrast with England, the 11th century French kings were relatively weak and controlled only a small territory compared to the French local lords, who governed relatively large territories (Henneman, 1971, p.8; Glaeser and Shleifer, 2002). In the 12th century, the territory was administratively divided into bailiwicks headed by royal officials. In towns, either the king or local lords appointed *prévôtes* who farmed taxes (Baldwin, 1986, pp. 43). The initial path of town liberties partially mirrors that of England. On the one hand, the Commercial Revolution led to urban growth and demand for an efficient administration of taxes on trade. By the 13th century, many trading towns – *bonnes villes* – received Charters of Liberties granting them the right of self-governance and, in some cases, the right to exclude royal officials (Baldwin, 1986, pp. 60-63; Challier, 2011, p. 18). Towns received charters in both royal and lords' territories. This finding is compatible with our argument, since French lords ruled over much larger territories than their English counterparts and had similarly complex layers of administration as the king. On the other hand, and unlike England, the rivalry between lords and the frequent conflicts with England also led both the king and lords to favor the emergence of *communes* – a bond between locals who provided a militia to defend their town (Petit-Dutaillis, 1947, pp. 82-3, 105-108; Tait, 1936, p. 256).

By the beginning of the 14th century, the autonomous trading towns and *communes* were summoned to general assemblies, mainly to discuss and give consent to extra-ordinary taxation, from which the nobility was largely exempt (Hervieu, 1876; Lewis, 1962). In contrast to England, the nationwide assembly (Estates General) met only intermittently and had very limited power. Regional assemblies, on the other hand, emerged earlier and were more prevalent than national ones, arguably because of the fragmentation of the territory and the autonomy of local lords (Lewis, 1962; Major, 1980). As in other parts of Europe, in the 16th century, the rising expenses for warfare led the king to demand an increasing amount of extra-ordinary subsidies from his subjects. Towns' resistance to these demands coincided with a surge in royal interference and patronage (Beik, 2005). Royal *reformateurs* and *intendants* were appointed to administer towns alongside closed local elites (Henneman, 1971, p. 18; Saupin, 1996; Roberts, 2007). In Bordeaux, the king almost entirely removed the local merchant elite who opposed royal taxation: in its place, he established a narrower oligarchy mainly composed of 'gens du roi' belonging to local noble families (Petit-Dutaillis, 1947, pp. 268-70). Similar instances of a reduction in the size of municipal governing bodies and electoral franchises occurred in numerous towns from the reign of Henry IV onwards (Major, 1980, pp. 381 and 669). Starting in the reign of Francis I (1515-47), venality of

municipal offices went hand in hand with the spread of the farming of indirect taxes to finance war efforts (Temple, 1966; Major, 1980; Bossenga, 1991; Doyle, 1996): “society took the form of a late, recharged feudalism” (Beik, 2005). In some areas (*pays d'état*), the regional estates – which were by now representative of a narrow and mainly landed elite – remained active. Under Louis XIV, their deputies were however under the influence of royal patronage and thus successfully opposed the introduction of more equitable direct taxes until the 18th century (Major, 1980, p. 636; Beik, 2005; Kwass, 2006). By then, the inefficiencies of tax farming came to the fore and the ever-increasing war expenses obliged the king to introduce the property tax known as the *dixième*, which mainly fell on the nobles (McCollim, 2012). The Crown's recurrent renegeing on the terms entered with office-holders and the lack of an effective parliament in which property rights could be negotiated were key in explaining the elites' behavior during the French Revolution (Root, 1994).

*Spain.* In the 11th century, Spain was highly fragmented. The south of the Iberian Peninsula was composed of Muslim polities, and the north, of separate Christian kingdoms. The latter resembled the English case, with royal and lords' territories. The king and local lords oversaw the administration of justice, taxes, and military affairs in their respective territories (O'Callaghan, 2013). As in England, urban life flourished with the Commercial Revolution. The rising urban bourgeoisie was a major source for taxes to finance the Reconquista. By the 12th century, trading towns in the different kingdoms obtained charters (*fueros*) granting them local autonomy over tax collection and the administration of justice (Ladero Quesada, 1994; Daileader, 1999). As in England, towns belonging to local lords gained fewer liberties than their royal counterparts (Font i Rius, 1945). In contrast to England – and similar to French communes – *fueros* had a military emphasis because of towns' importance during the recurring conflicts between the various polities (O'Callaghan, 2013; Morales Arrizabalaga, 2010). A particularly important subset of the towns' oligarchies were the *caballeros* (knights), who were also exempt from taxation (Ladero Quesada, 1994; Sanz, 1994).<sup>89</sup>

At the end of the 12th century, assemblies (*Cortes*) emerged in all the Christian kingdoms of Spain. Similar to England, self-governing towns were represented in these assemblies, mainly to discuss extra-ordinary taxation (García Díaz, 2015). The *Cortes* reached the height of their influence at the beginning of the 14th century (Serrano, 1987). By the end of the 14th century, many towns began to lose part of their autonomy as well as their representation in the *Cortes*. This was driven by multiple factors. First, the ownership of many royal towns was transferred to local lords (O'Callaghan, 2013; Ladero Quesada, 1994; Sanz, 1994). Second, the Crown increasingly meddled with towns' internal affairs by appointing *regidores* – high-level local officials, mostly chosen from the local nobility. Third, the *caballeros* took over almost entirely the towns' munic-

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<sup>89</sup>In Aragon, because of the Reconquista, the *caballeros* were so important that they sat in a separate section (*brazo*) in the *Cortes* (Gil, 1993).

ipal councils (Ladero Quesada, 1994; Sanz, 1994; Moreno Nieves, 2008). In Castille, the narrow oligarchies of the most important towns obtained jurisdiction over the surrounding communities, and as a result became the only towns represented in assemblies. These towns' narrow and closed oligarchies entered deals with the Crown to farm the indirect royal taxes imposed on fellow townsmen (Merriman, 1911; Ortiz, 1961; Ladero Quesada, 1994). Similar dynamics took place in the Crown of Aragon (Sánchez Martínez, 2010). In the 15th century, the Catholic Kings unified much of the Spanish territory. The jurisdiction of the Crown over these historic territories remained fragmented (Grafe, 2012). The Crown continued to rely on local oligarchs to act as (hereditary) tax farmers until well into the 18th century (Zamora, 1998a,b; Furió, 1999; Sanz, 1994; Irigoín and Grafe, 2008). The old (regional) *Cortes* survived and exerted a constraint on monarchs until the 17th century, although they were rarely summoned. By then, the system of tax farming aligned the interests of local oligarchies so strongly with those of the Crown that consent in the *Cortes* was virtually assured (Jago, 1981).

Flanders. For most of the Middle Ages, the “county” of Flanders was formally under the over-lordship of the King of France. In practice, the count of Flanders – who had an hereditary grip on the county – enjoyed wide autonomy. The territory was divided into castellanies – military and judicial territorial subdivisions headed by bailiffs (Nicholas, 1992, pp. 80-7). As in England, in the course of the 11th and 12th centuries, trade increased the need for specialized and autonomous municipal administrations. Trading towns obtained the right to have an administration (urban *échevinage*) separate from that of the rural castellanies (Ganshof, 1951). By the end of the 12th century, townsmen elected town's magistrates (aldermen), although their overlord – the count – maintained influence over this choice (Nicholas, 1992, pp. 120-3 and 132-5; Dumolyn, Declercq, and Haemers, 2018, p. 138). Unlike England, towns possessed militias that controlled large surrounding territories and posed a constant military threat to the count. Therefore, not only trade but also towns' military capabilities may have fostered municipal autonomy.

The most important Flemish trading towns – the *Trois Villes* of Ghent, Bruges and Ypres – extended their jurisdiction over the surrounding communities (Nicholas, 1978). As a result of this dominance, by and large, the *Trois Villes* were the only towns summoned to general assemblies throughout the 12th to 14th century (Nicholas, 1992, pp. 162, 186). The Habsburg house, who acquired over-lordship of Flanders in the 15th century, significantly diminished towns' military capabilities. The major towns suffered from a partial loss of autonomy, which weakened the merchants' voice in representative institutions (Baguet, 2019). The Flemish assemblies, however, continued to exert a constraint on the Crown – in particular in tax collection – in the centuries that followed (Dhondt, 1950).

Sicily. In a period lasting less than three hundred years, Sicily underwent four conquests, each associated with large changes in land ownership. The Normans founded the Kingdom of

Sicily in c. 1130, at the onset of the Commercial Revolution. Similar to England, the Norman king divided the territory between himself and lay and ecclesiastical Norman lords. He appointed officials to collect taxes in the royal demesne and enforce the law throughout the realm. In contrast to England, the king kept the highly efficient pre-existing (Arab) bureaucracy (Mack Smith, 1968, p. 27). This can help to explain why town liberties are rarely observed in the period immediately following the conquest. Only Palermo and Messina, two large royal trading towns, gained limited autonomy during the 12th century. In the first half of the 13th century, the new king Frederick II faced a rebellion from local barons. Once control was re-established, Frederick kept a tight grip on the local administration and did not grant autonomy to towns. After his death in 1250, a state of near-anarchy prevailed. On the one hand, in royal trading towns, some municipal autonomy was encouraged by the king to gain support against the barons (Mack Smith, 1968, pp. 43-46); whether trade was also a factor that facilitated self-governance is unclear.<sup>90</sup> On the other hand, local lords acquired control of a large number of towns that, as a consequence, lacked administrative autonomy altogether (Mack Smith, 1968, p. 100).

Concomitant with the emergence of self-governance in royal towns, the Sicilian parliament was established, where trading towns' representatives discussed extra-ordinary taxation. However, the long-lasting lack of self-governance, which had hampered the formation of a strong class of merchants, meant that powerful barons had significant influence over these towns' administrations and representation in parliament (Mack Smith, 1968; D'Alessandro and Corrao, 1994). When, in the course of the 15th and 16th centuries, the Spanish kings' increasing reliance on extra-ordinary taxes allowed the (regional) parliament to gain power, trading towns lacked the necessary independence from the king and local lords to exert any meaningful influence. This status quo lasted until the 18th century (Mack Smith, 1968; Koenigsberger, 1978; Sabetti, 2014).

*Northern Italy.* At the end of the 10th century, the Kingdom of Italy belonged to German kings and emperors. The royal authority was very weak: The kingdom was divided into highly autonomous domains belonging to dukes, counts, and bishops, from which royal officials were often excluded. The weakness of the central authority also forced the German king to increasingly rely on townsmen to form sworn associations (*communes*) in order to defend towns against raids by Hungarians and Saracens (Tabacco, 1989, pp. 151-7).

During the 11th and 12th century, similar to Flanders, a handful of urban trading *communes* (e.g., Florence) enjoyed significant military power, which they used to subject the surrounding towns and rural areas to their jurisdiction (Comba, 1991). A conflict between *communes* and emperor Frederick 'Barbarossa' arose when the latter attempted to limit towns' autonomy. The Peace of Constance (1183) resulted in wider royal concessions of autonomy to urban *communes*,

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<sup>90</sup>Although merchants were not excluded from office-holding in Palermo during the 13th and 14th centuries, the local nobility – the *miles* – dominated the local administration (Pasciuta, 1998).

some of which evolved into city-states (Tabacco, 1989). By and large, these powerful towns were under the control of assemblies in which nobles and merchant guilds – often intertwined (as in Venice) – were represented (Jones, 1979; Artifoni, 1986). Overall, in contrast to England, military considerations rather than trade seem paramount when analyzing the emergence of self-governing trading towns.

Because of internal conflicts between various factions of nobles and merchants, many large autonomous towns evolved into a *signoria*, in which the *signore* (often a local noble) rather than town assemblies appointed local officials (Chittolini, 1979; Ventura, 1979). The *signoria* paved the way to the formation of stable and relatively small regional states (e.g., the Duchy of Milan), in which most towns enjoyed limited self-governance and, with few exceptions (e.g., the County of Savoy) were almost never represented in regional – let alone national – assemblies (Gamberini, 2008; Astuti, 1979).<sup>91</sup>

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<sup>91</sup>The Republics of Venice and Genoa stand out from this account. Arguably because noble families were also involved in trade, these two towns never evolved into *signorie* and instead came to be controlled by the town's closed oligarchy of wealthy merchants (Tabacco, 1989, pp. 292-4; Puga and Treffer, 2014).

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## Challenges to a Causal Interpretation and Ways to Address Them

Section 5.3 presents empirical evidence that supports a causal relationship between Farm Grants and representation in Parliament. This is complemented by rich historical evidence that we discuss in Section 3. The tables below provide a summary of potential challenges to a causal interpretation, together with references to the empirical and historical evidence that renders them unlikely.

<b><u>Did Farm Grants have a Causal Effect on Enfranchisement? Checking the Exclusion Restriction</u></b>	
<i>Our argument in Section 5 is that royal trading boroughs obtained Farm Grants, and that the resulting administrative autonomy of Farm Grant boroughs fostered their representation in Parliament. We use three proxies for trade activity of boroughs: location on navigable rivers, on the sea coast, and on Roman roads. The exclusion restriction is that trade geography affected parliamentary representation of boroughs only via Farm Grants, but not via other channels.</i>	
Type of evidence: <b>Historical/Empirical</b>	<u>Description of Evidence</u>
<i>Placebo Exercise to Check the Exclusion Restriction</i>	
<b>E:</b> Section 5.3; Table 3, columns 5 and 6	<p>We use mesne boroughs as a ‘placebo’ to check the exclusion restriction. In mesne boroughs, Farm Grants were very rare because of the historical reasons described in Section 3.5. Correspondingly, we find that the relationship between trade geography and Farm Grants holds only in royal boroughs (Table 2). We then test the exclusion restriction in Table 3: Columns 5 and 6 show that there is no relationship between trade geography and enfranchisement in mesne boroughs, i.e., in the absence of Farm Grants.</p> <p><u>Note:</u> The validity of mesne boroughs as a ‘placebo’ depends on them being comparable to royal boroughs along other dimensions that may have mattered for enfranchisement (wealth, location, extra-ordinary taxes being collected by the same procedure, access to Parliament, etc). We discuss these in detail below.</p>
<i>Historical Evidence in Support of the Exclusion Restriction</i>	
<b>H:</b> Section 3.6	<p>The historical record does not suggest a direct relationship between boroughs’ trade activity and their representation in Parliament. Parliament was not directly tied to merchants or specific economic interests; instead, it was a ‘general assembly’ that served as a representative institution of <i>all</i> property holders, meant to facilitate the collection of extra-ordinary taxes.</p> <p><u>Note:</u> Our argument does not require trade in general to be unrelated to <i>aggregate</i> outcomes. In particular, the fact that the Commercial Revolution coincided with the emergence of parliaments across Europe does not violate our exclusion restriction because we focus on the <i>composition</i> of Parliament in a cross-section of all English boroughs.</p>
<i>Placebo Exercise for Long-Run Results: Trade Obstruction</i>	
<b>E:</b> Section 6.5	<p>We use historical shocks to the trade geography of boroughs in an additional placebo exercise: We show that Farm Grants predict long-run institutional outcomes even in the absence of trade. This makes it unlikely that trade had a direct effect on the political economy of Farm Grant boroughs in the long run.</p>

<b>Do Differences between Royal and Mesne Boroughs Drive our Placebo Results?</b>	
<i>Could our placebo results for mesne boroughs (i.e., the absence of a relationship between trade geography and representation in Parliament) be driven by different institutional or political characteristics of mesne boroughs?</i>	
Type of evidence: Historical/Empirical	<u>Description of Evidence</u>
<i>Institutional Differences in Royal vs. Mesne Boroughs?</i>	
<b>H:</b> Sections 3.3 and 3.6; Appendix C.7 Point ii).	We discuss in Sections 3.3 and 3.6 that uniform extra-ordinary taxes were collected from both royal and mesne boroughs, and that both types of boroughs were subject to shire courts for extra-ordinary taxation (see also Figure 1). In addition, the procedure of summoning representatives to Parliament (where extra-ordinary taxes were negotiated) was the same for royal and mesne territories (see footnote 24 in the paper for detail). In Appendix C.7 Point ii) we cite and quote numerous historians who discuss royal and mesne boroughs. Where institutional differences are mentioned, these are exclusively about royal boroughs being able to obtain autonomy-granting liberties, while mesne lords rarely granted such liberties to their boroughs. Thus, the difference that historians point to is exactly in line with our argument. We also show that when abstracting from Farm Grants, other liberties were relatively balanced across royal and mesne boroughs.
<b>H:</b> Section 3.6: Role of lords in enfranchisement?	One may think that, because mesne lords were individually summoned to Parliament as military tenants-in-chiefs, the enfranchisement of their boroughs was unnecessary. However, the English Crown was sufficiently strong to ensure that for extra-ordinary taxation, mesne boroughs were integrated within the shire system (which was run by royal officials). Consequently, mesne lords were in no position to directly affect the selection of boroughs for enfranchisement. In fact, local lords could <i>not</i> give consent to extra-ordinary taxation on behalf of their tenants (Mitchell, 1951), and they were themselves taxed at the same rate.
<i>Institutional Differences Interacting with Trade?</i>	
<b>H/E:</b> Appendix C.7.	In Appendix C.7 Point ii) we ask “Did institutional differences foster trade predominantly in royal boroughs?” For example, did the king promote trade particularly strongly in the royal demesne, or did mesne lords prevent trade geography from unfolding its potential in their territories? We present both empirical and historical evidence that speaks against this possibility in Appendix C.7. For example, we show in Table A.7 that trade geography predicts economic activity and population in <i>both</i> royal and mesne boroughs. Appendix C.7, Point ii) provides more evidence and a detailed discussion.
<i>table continued on next page</i>	

**Do Differences between Royal and Mesne Boroughs Drive our Placebo Results? [ctd.]**

*Differences in Wealth between Royal and Mesne Boroughs?*

<b>H:</b> Section 3.6	<p>Could it be that wealth confounds our results because the king “cherry-picked” the richest boroughs to become royal? If that was true, a concern could be that rich royal boroughs obtained Farm Grants and they also ‘bought’ seats in Parliament. Or, similarly, one may speculate that in order to increase his tax revenues, the king first ‘sold’ Farm Grants to the richest boroughs and then gave them seats in Parliament in exchange for additional taxes. Such arguments are not only at odds with the empirical evidence summarized in the next few points; they are also at odds with the historical evidence discussed in Section 3.6. During the late Medieval period, seats in Parliament were not perceived as a highly valuable asset (McKisack, 1962). Boroughs did not demand to be enfranchised, and likewise, the Crown did not sell parliamentary seats. This practice emerged only after the 15th century (see footnote 30).</p>
<b>E:</b> Subsamples by borough wealth in Figure 5 with corresponding results in Figure 6; Section 5.3.	<p>As shown in the top left panel of Figure 5, in the full sample royal boroughs had slightly higher taxable wealth than mesne boroughs in 1086 (data from the Domesday Book). When trimming the sample (Samples 2 and 3), there is no more difference in wealth. Finally, Sample 4 in Figure 5 uses only the <i>poorest</i> royal boroughs and the <i>richest</i> mesne boroughs. If our results were confounded by borough wealth, they should change (dramatically) in Sample 4. The contrary is true: As Figure 6 shows, all our results on enfranchisement (OLS regressions on Farm Grants and reduced form regressions on trade geography) are very similar for all subsamples. Section 5.3 discusses these exercises in detail.</p>
<b>E:</b> Propensity score matching in Appendix C.6	<p>We use propensity score matching to create balanced ‘control’ groups for Farm Grant boroughs, using two different matching variables that span a three-century horizon: Taxable wealth in 1086 (before Farm Grants were issued and before the Commercial Revolution took off in England), and the number of taxpayers in the poll tax of 1377 (i.e., shortly after the end of the period that we consider for the issuance of Farm Grants). For both matching variables, we confirm the magnitude and significance of the coefficient on Farm Grants, and the results are almost identical when we use either mesne boroughs or (non-Farm Grant) royal boroughs as the matched ‘control’ group. Figure A.6 illustrates the quality of the matching exercise, showing a tight overlap in the distributions of the matching variables for Farm Grant boroughs and the ‘control’ group. Appendix C.6 provides further detail.</p>

*table continued on next page*

<b><u>Do Differences between Royal and Mesne Boroughs Drive our Placebo Results? [ctd.]</u></b>	
<i>Differences in Trade Potential or Trade Activity?</i>	
<b>E:</b> Entropy balancing by trade geography in Table 3, col 6	As discussed in Section 5.1 and Appendix C.3, royal boroughs were more frequently located on navigable rivers or Roman roads than mesne boroughs.* However, <i>overall</i> there were more mesne boroughs on rivers and Roman roads, allowing us to balance the sample by entropy weighting (matching both the mean and variance of the three trade geography variables – see the statistics after matching in Table A.3). Comparing cols 5 and 6 in Table 3 shows that we fully confirm our placebo check of the exclusion restriction (i.e., the non-relationship between trade geography and enfranchisement in mesne boroughs).
<b>E:</b> Sample restrictions in Appendix C.7	Table A.8 further addresses the possible issue of differences in trade geography: We restrict the sample to boroughs with identical trade characteristics (e.g., only boroughs on a navigable river, or only boroughs that had obtained Freedom from Tolls) and then compare royal Farm Grant boroughs to matched mesne boroughs with the same wealth in 1086 (Figure A.7 shows the corresponding distributions). Even within these highly restricted subsamples, we fully confirm our results on enfranchisement.
<b>H:</b> Selection based on (unobserved) trade potential? Appendix C.7	Did the king strategically pick the places with highest trade <i>potential</i> to become royal boroughs? To the extent that our three proxies for trade geography capture trade potential, the above exercises address this point. However, if there was selection based on <i>unobserved</i> trade potential, this could still confound our results. As we discuss in Appendix C.7 Point ii), the historical context renders this unlikely: By the time of the Norman Conquest, the Commercial Revolution had not yet reached England, and when trade became important later on, the division into royal and mesne boroughs had already been established. Also, Figure 4 shows that royal and mesne boroughs were distributed relatively evenly across England.
<i>table continued on next page</i>	

\*As we discuss in Appendix C.3, these differences in trade geography are unlikely to be the result of the king strategically selecting boroughs by trade potential. Instead, a likely explanation is that the king needed to ensure that royal officials and troops could reach his boroughs to secure the administrative and military control over the realm (Astill, 2000, p. 44). This arguably favored strategically important locations on waterways and roads to become royal boroughs (Tait, 1936).

**Do Differences between Royal and Mesne Boroughs Drive our Placebo Results? [ctd.]**

*Other (Unobserved) Differences Between Royal and Mesne Boroughs?*

<p><b>E:</b> Sample splits using Domesday boroughs in Appendix C.8</p>	<p>Are there other (unobserved) differences that affected the division into royal vs. mesne boroughs which, in turn, may also be related to Farm Grants and enfranchisement? Appendix C.8 addresses this remaining potential concern by using historical information on the 106 ‘Domesday Boroughs’ – the most important economic, military, and administrative centers at the time of the Norman Conquest (Brooke, 1961, p. 127; Darby, 1977). If the king cherry-picked royal boroughs, Domesday boroughs would certainly have been the most attractive targets. Table A.9 performs various sample splits, showing that our results on enfranchisement hold when i) we use only Domesday boroughs, ii) when excluding all Domesday boroughs from the full sample, iii) and even in a particularly restrictive exercise, using only non-Domesday royal boroughs and Domesday mesne boroughs. The third exercise <i>excludes</i> the most important royal boroughs, while <i>including only</i> the most important mesne boroughs. If our findings were driven by systematic differences in the importance of royal vs. mesne boroughs, the correlation between Farm Grants and enfranchisement should disappear (or at least be much weaker) in this subsample. Instead, we fully confirm the magnitude and statistical significance of our main results; we also confirm the reduced-form relationship between trade geography and enfranchisement in royal boroughs and the zero-result for mesne boroughs.</p> <p><u>Note:</u> The third sample split (reported in cols 4-6 of Table A.9) yields <i>full balancedness</i> for royal and mesne boroughs along all relevant observable characteristics (see the statistics in Table A.10). That is, we obtain balancedness without having to rely on weighting or matching techniques – and we fully confirm our main results.</p>
<p><b>E:</b> Sample splits using “taxation boroughs” in Appendix C.9</p>	<p>Our results on enfranchisement hold within the subsample of 144 “taxation boroughs” – commercially important urban settlements (73 royal and 71 mesne) that were occasionally selected by royal assessors to pay a higher rate of extra-ordinary taxation (Willard, 1933). Moreover, our results hold even when we drop all royal “taxation boroughs” while including only mesne “taxation boroughs.” These results render it unlikely that our findings are confounded by other features of extra-ordinary taxation (e.g., the commercially most important boroughs being summoned to Parliament because they occasionally paid higher rates of extra-ordinary taxation).</p>
<p><b>E:</b> Organizational capacity in Appendix C.10</p>	<p>Could our results be driven by (unobserved) organizational capacity? We use two types of Charters of Liberties as proxies for the organizational capacity of boroughs: the right to elect officials (other than via Farm Grants) and rights to collect Murage or Pavage (funds used to repair town walls and streets). Table A.12 shows that controlling for these variables does not change our results on enfranchisement, and the coefficients on the two proxies are significantly smaller than those for Farm Grants.</p>
<p><b>E:</b> Pre-Norman institutions in Appendix C.11</p>	<p>We show that our results are robust to controlling for pre-Norman fortified towns and for towns that already had the status of ‘borough’ at the time of the Norman Conquest. In addition, there is no relationship between Farm Grants and pre-Norman kingdoms: Column 2 in Table 1 shows that fixed effects for the four kingdoms are individually and jointly statistically insignificant.</p>