Online Appendix

Organizing a Kingdom

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A Additional Proofs

For completeness, we report all the steps needed to compute P's expected loss under *Separation* and *indirect* communication, as reported in Appendix B.

In order to define $\mathbb{E}\left(\left(\mathbb{E}_T\left(\theta_P\right)\right)^2\right)$, we first compute the following components:

(a) *Probabilities:*

$$Pr\left(\theta_{_P} \in \left[\theta_{_{P,k-1}}, \theta_{_{P,k}}\right]\right) = \frac{1}{\frac{2\bar{\theta}}{\left(\bar{\theta}-\frac{Q}{\gamma_L - B}\right)\left(\alpha_L^{k-1}-\alpha_L^k\right)}} = \frac{\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right)}{2}\left(\alpha_L^{k-1}-\alpha_L^k\right), \text{ if } \theta_{_P} > \frac{Q}{\gamma_L - B}; \tag{S.1}$$

$$Pr\left(\theta_{_P} \in \left[\theta_{_{P,-k}}, \theta_{_{P,-(k-1)}}\right]\right) = \frac{1}{\frac{2\bar{\theta}_P}{\left(\bar{\theta}+\frac{Q}{\gamma_L - B}\right)\left(-\alpha_L^{k}+\alpha_L^{k-1}\right)}} = \frac{\left(\bar{\theta}+\frac{Q}{\gamma_L-B}\right)}{2}\left(\alpha_L^{k-1}-\alpha_L^k\right), \text{ if } \theta_{_P} < \frac{Q}{\gamma_L - B}. \tag{S.2}$$

(b) *Conditional Expectations:* The cutoffs of the partitions are:

$$\theta_{P,k} = \frac{Q}{\gamma_L - B} + \alpha_L^{k-1}\left(\bar{\theta}+\frac{Q}{\gamma_L - B}\right), \text{ if } \theta_{_P} > \frac{Q}{\gamma_L - B}, \tag{S.3}$$

$$\theta_{P,k} = \frac{Q}{\gamma_L - B} - \alpha_L^{k-1}\left(\bar{\theta}+\frac{Q}{\gamma_L - B}\right), \text{ if } \theta_{_P} < \frac{Q}{\gamma_L - B}. \tag{S.4}$$

Therefore, conditional expectations are:

$$\mathbb{E}_{T}\left(\theta_{P}\mid m_{L,k}\right)=\frac{Q}{\gamma_L-B}+\frac{\alpha_L^{k-1}\left(1+\alpha_L\right)}{2}\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right),\quad \text{if } \theta_{P}>\frac{Q}{\gamma_L-B}; \tag{S.5}$$

$$\mathbb{E}_{T}\left(\theta_{P}\mid m_{L,k}\right)=\frac{Q}{\gamma_L-B}-\frac{\alpha_L^{k-1}\left(1+\alpha_L\right)}{2}\left(\bar{\theta}+\frac{Q}{\gamma_L-B}\right),\quad \text{if } \theta_{P}<\frac{Q}{\gamma_L-B}; \tag{S.6}$$

(c) *Ex ante Expectations and Variances:*

$$\begin{aligned}\mathbb{E}\left(\mathbb{E}_{T}\theta_{P}\right)^{2}=\int_{-\underline{\theta}}^{\underline{\theta}}\int_{-\underline{\theta}}^{\underline{\theta}}\Bigg\{&\sum_{k=1}^{\infty}\left[\frac{\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right)}{2}\left(\alpha_L^{k-1}-\alpha_L^{k}\right)\right.\\&\left.\times\left(\frac{Q}{\gamma_L-B}+\frac{\alpha_L^{k-1}\left(1+\alpha_L\right)}{2}\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right)\right)^{2}\right]\\&+\sum_{k=1}^{\infty}\left[\frac{\left(\bar{\theta}+\frac{Q}{\gamma_L-B}\right)}{2}\left(\alpha_L^{k-1}-\alpha_L^{k}\right)\right.\\&\left.\times\left(\frac{Q}{\gamma_L-B}-\frac{\alpha_L^{k-1}\left(1+\alpha_L\right)}{2}\left(\bar{\theta}+\frac{Q}{\gamma_L-B}\right)\right)^{2}\right]\Bigg\}\\&\times\frac{1}{2\underline{\theta}}\frac{1}{2\underline{\theta}}d\theta_L d\theta_T,\end{aligned} \tag{S.7}$$

where expectations must be taken with respect to the realizations of θ_L and θ_T, because $i)$ Q depends on the realizations of the local states, and $ii)$ P is uninformed about these realizations when selecting the structure of vertical communication. (S.7) can be rewritten as:

$$\begin{aligned}\mathbb{E}\left(\left(\mathbb{E}_{T}\theta_{P}\right)^{2}\right)=\int_{-\underline{\theta}}^{\underline{\theta}}\int_{-\underline{\theta}}^{\underline{\theta}}\Bigg\{&\frac{1}{4}\left[\left(1+\frac{\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^{3}}\right)\bar{\theta}^{2}\right.\\&\left.-\left(1-\frac{3\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^{3}}\right)\left(\frac{Q}{\gamma_L-B}\right)^{2}\right]\Bigg\}\\&\times\frac{1}{2\underline{\theta}}\frac{1}{2\underline{\theta}}d\theta_L d\theta_T,\end{aligned} \tag{S.8}$$

which gives:

$$\mathbb{E}\left(\left(\mathbb{E}_{T}\theta_{P}\right)^{2}\right) = \frac{1}{4}\Bigg[\left(1+\frac{\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^3}\right)\bar{\theta}^2 - \left(1-\frac{3\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^3}\right)\left(\frac{\underline{\theta}}{\gamma_L-\gamma_T}\right)^2 \times\left(\frac{\left(1-\gamma_L\right)^2}{3}+\frac{\left(1-\gamma_T\right)^2}{3}-\frac{\left(1-\gamma_L\right)\left(1-\gamma_T\right)}{2}\right)\Bigg]. \tag{S.9}$$

Finally, (A.29) follows from (S.9), $\mathbb{E}\left(\theta_L^2\right)=\mathbb{E}\left(\theta_T^2\right)=\frac{\underline{\theta}^2}{3}$, $\mathbb{E}\left(\theta_P^2\right)=\frac{\bar{\theta}^2}{3}$, and $\mathbb{E}\left(\theta_P\mathbb{E}_T\left(\theta_P\right)\right)=\mathbb{E}\left(\left(\mathbb{E}_T\left(\theta_P\right)\right)^2\right)$.

B Main Proposition with Costly Direct Communication

We offer a full characterization of the equilibrium governance structure under incomplete information when the cost of *direct* communication (f) between P and A_T can take any positive value. Before presenting the proposition, we revisit the key thresholds for k_T underpinning our analysis. Specifically:

- Following Proposition 2, the threshold $\tilde{k}\left(f,\cdot\right)$ is the value of k_T at which P's expected loss under *Integration* with *indirect* communication equals that under *Separation* with *direct* communication. This threshold is increasing in f, as the fixed cost of *direct* communication only affects P's expected loss under *Separation* with *direct* communication. Importantly, this threshold only exists when the threshold $\underline{k}$ exists under complete information (see Proposition 1 and Corollary 1).

- Following Lemma 5, the threshold $\hat{k}\left(f,\cdot\right)$ is the value of k_T at which P's expected loss under *Separation* with *indirect* communication equals that under *Separation* with *direct* communication. The threshold exists only when $f\geq\underline{f}$, with $\hat{k}\left(\underline{f},\cdot\right)=0$. As f increases, $\hat{k}\left(f,\cdot\right)$ also increases, as the fixed cost of *direct* communication only affects P's expected loss under *Separation* with *direct* communication.

- Additionally, there may exist a threshold k' such that P's expected loss under *Integration* with *indirect* communication is lower (resp., greater) than that under *Separation* with *indirect* communication for $k_T<k'$ (resp., $k_T>k'$). For $k_T=k'$, the expected losses under these two structures are equal. The threshold k' is independent of f. Importantly, k' exists only when $i)$ $\underline{k}$ also exists under complete information, and $ii)$ γ_L and γ_T are close enough to ensure that α_L is sufficiently high (i.e.,*indirect* communication remains accurate enough under *Separation*).

The proposition below generalizes the results established in Proposition 2.

Proposition B.1. *Fix k_L. Suppose a threshold $\underline{k}$ for k_T exists under complete information (as stated in Corollary 1). Suppose also that a threshold k' exists. Then, under incomplete information:*

i) if $f \leq \underline{f}$, there exists a threshold $\tilde{k}$ for k_T such that P chooses:

a) Integration with 'indirect' communication for $k_T < \tilde{k}$;

b) Separation with 'direct' communication for $k_T \geq \tilde{k}$;

ii) if $f \in \left(\underline{f}, \bar{f}\right]$, there exist two thresholds for k_T – defined as $\hat{k}$ and $\tilde{k}$, with $\hat{k} \leq \tilde{k}$ – such that P chooses:

a) Integration with 'indirect' communication for $k_T < \tilde{k}$;

b) Separation with 'direct' communication for $k_T \geq \tilde{k}$;

iii) if $f > \bar{f}$, there exist three thresholds for k_T – defined as $\hat{k}$, $\tilde{k}$ and k', with $\hat{k} > \tilde{k} > k'$ – such that P chooses:

a) Integration with 'indirect' communication for $k_T < k'$;

b) Separation with 'indirect' communication for $k_T \in \left[k', \hat{k}\right)$;

c) Separation with 'direct' communication for $k_T \geq \hat{k}$.

When the threshold $\underline{k}$ exists but the threshold k' does not exist, we have $\bar{f} = +\infty$.

Finally, suppose the threshold $\underline{k}$ does not exist under complete information (see Proposition 1 and Corollary 1). Then, under incomplete information, P chooses Integration with 'indirect' communication for all k_T.

Proof. We first consider the case in which a threshold $\underline{k}$ for k_T exists under complete information (see Proposition 1 and Corollary 1). In this case, a threshold $\tilde{k}(f, \cdot)$ for k_T exists under incomplete information, such that P prefers *Separation* with *direct* communication to *Integration* with *indirect* communication for $k_T \geq \tilde{k}$. The reverse holds for $k_T < \tilde{k}(f, \cdot)$. To establish this, note that, from Lemma 2, P can convey perfectly accurate information about θ_P to A_T under both governance structures. The existence of the threshold $\tilde{k}(f, \cdot)$ then follows from a reasoning analogous to that in the proof of Proposition 2 (which builds on Proposition 1 and Corollary 1).

Having established the existence of the threshold $\tilde{k}(f, \cdot)$, we now consider parts $i)$, $ii)$ and $iii)$ of the proposition separately.

Part i: When $f \leq \underline{f}$, under *Separation*, P prefers 'direct' to *indirect* communication for all k_T (as shown in Lemma 5). Thus, building on the reasoning exposed in the first paragraph of this proof, at equilibrium P chooses *Integration* with *indirect* communication for $k_T < \tilde{k}$ and *Separation* with *direct* communication for $k_T \geq \tilde{k}$. This proves parts $i.a$ and $i.b$ in the proposition.

Part ii: When $f > \underline{f}$, Lemma 5 establishes the existence of a threshold $\hat{k}(f, \cdot)$, increasing in f, such that, under *Separation*, P prefers *indirect* communication for $k_T < \hat{k}$ and *direct* communication for $k_T \geq \hat{k}$.

By construction, the threshold $\hat{k}(f, \cdot)$ is equal to zero when $f = \underline{f}$, which implies that $\tilde{k}\left(\underline{f}, \cdot\right) > \hat{k}\left(\underline{f}, \cdot\right) = 0$. Both thresholds increase with f, but $\hat{k}(f, \cdot)$ increases with f at a faster rate than $\tilde{k}(f, \cdot)$. This occurs because, when the threshold k' exists, it must be that P's expected loss under *Integration* with *indirect* communication grows at a faster rate with k_T than P's expected loss under *Separation* with *indirect* communication.[1] Thus, there must exist a value $f = \bar{f}$ such that $\tilde{k}\left(\bar{f}, \cdot\right) = \hat{k}\left(\bar{f}, \cdot\right)$. By construction, when $f = \bar{f}$, both thresholds are also equal to k'.[2]

As a result of the reasoning above, when $f \in \left(\underline{f}, \bar{f}\right]$, we have $k' \geq \tilde{k}(f, \cdot) \geq \hat{k}(f, \cdot)$. This chain of inequalities yields the following results:

- *Separation* with *indirect* communication is always dominated by at least one alternative structure. To prove this, note that *Separation* with *indirect* communication is preferred over *Separation* with *direct* communication for $k_T < \hat{k}(f, \cdot)$. However, because $k' \geq \hat{k}(f, \cdot)$, for these values of k_T, *Separation* with *indirect* communication is dominated by *Integration* with *indirect* communication.

- Because *Separation* with *indirect* communication is not optimal for any values of k_T, it follows that the thresholds k' and $\hat{k}(f, \cdot)$ can be disregarded when determining P's preferred governance structure.

- Because k' and $\hat{k}(f, \cdot)$ can be disregarded, P's preferred governance structure is determined solely by the threshold $\tilde{k}(f, \cdot)$. Specifically, P chooses *Integration* with *indirect* communication for $k_T \in \left[0, \tilde{k}\right)$, and *Separation* with *direct* communication for $k_T \geq \tilde{k}$. This proves parts $ii.a$ and $ii.b$ in the proposition.

Part iii: Following the reasoning exposed in part ii above, when $f > \bar{f}$, we have $k' < \tilde{k}(f, \cdot) < \hat{k}(f, \cdot)$. This chain of inequalities yields the following results:

[1] Recall that, for $k_T = 0$, P incurs the lowest expected loss under *Integration* with 'indirect communication.

[2] The equality between $\tilde{k}$, $\hat{k}$ and k' when $f = \bar{f}$ follows from the definition of the three thresholds. Specifically, the threshold $\tilde{k}(f, \cdot)$ is the value of k_T at which P's expected loss under *Integration* with *indirect* communication equals that under *Separation* with *direct* communication. The threshold $\hat{k}(f, \cdot)$ is the value of k_T at which P's expected loss under *Separation* with *indirect* communication equals that under *Separation* with *direct* communication. Therefore, if these two thresholds are equal, it implies that P's expected loss under *Integration* with *indirect* communication is equal to that under *Separation* with *indirect* communication, i.e., $k_T = k'$.

- *Integration* with *indirect* communication is P's preferred governance structure for $k_T < k'$. This proves part $iii.a$ in the proposition.

- Because *Integration* with *indirect* communication is (weakly) dominated for $k_T \geq k'$, and because $\tilde{k}(f, \cdot) > k'$, the threshold $\tilde{k}(f, \cdot)$ can be disregarded when determining P's preferred governance structure.

- Because $\tilde{k}(f, \cdot)$ can be disregarded, for values of k_T that exceed k', P's preferred governance structure is determined solely by the threshold $\hat{k}(f, \cdot)$. Specifically, P chooses *Separation* with *indirect* communication for $k_T \in \left[k', \hat{k}\right)$, and *Separation* with *direct* communication for $k_T \geq \hat{k}$. This proves parts $iii.b$ and $iii.c$ in the proposition.

Suppose now that the threshold k' does not exist, meaning that P prefers *Integration* with *indirect* communication to *Separation* with *indirect* communication, for all k_T. From (A.29) and (A.30), this occurs when α_L is sufficiently low – where α_L is defined in the proof of Lemma 4. Then:

- When $f \leq \underline{f}$, from Lemma 5), the governance structures described in parts $i.a$ and $i.b$ remain an equilibrium. This holds because the threshold k' plays no role in determining the equilibrium governance structure in parts $i.a$ and $i.b$, irrespective of whether the threshold exists.

- When $f > \underline{f}$, the nonexistence of the threshold k' implies that a threshold $\bar{f}$ does not exist either. Specifically, because P prefers *Integration* with *indirect* communication to *Separation* with *indirect* communication, for all k_T, P's expected loss from *Integration* with *indirect* communication is flatter than P's expected loss from *Separation* with *indirect* communication. As a consequence, $\tilde{k}(f, \cdot)$ increases with f at a faster rate than $\hat{k}(f, \cdot)$, resulting in $\tilde{k}(f, \cdot) > \hat{k}(f, \cdot)$, for all $f > \underline{f}$. We can therefore conclude that the equilibrium governance structure described in parts $ii.a$ and $ii.b$ is an equilibrium for $f > \underline{f}$.

Finally, consider the case in which a threshold $\underline{k}$ does not exist in the game of complete information. In this case, following the reasoning described in the proof of Proposition 2 (which builds on Proposition 1 and Corollary 1), it is simple to prove that P chooses *Integration* with *indirect* communication for all k_T, and for all $f \geq 0$. □

Overall, Proposition E.2 confirms the main findings reported in Proposition 2 from the main text. Specifically, whenever players' preferences are such that *Separation* increases the ruler's payoff through improvements in the urban economy, *Separation* becomes the preferred governance structure as the relative size of the urban economy increases sufficiently compared to that of landed economy. In general, the transition from *Integration* to *Separation* triggers a change in the structure of communication between the ruler and the urban elite – from *indirect* communication through the landed elite to *direct* communication. However, when $i)$ establishing *direct* communication with the urban elite involves significantly large fixed costs, and $ii)$ *indirect* communication remains sufficiently accurate under *Separation*, Proposition E.2 highlights that an intermediate scenario can exist. In this case, the transition from *Integration* to *Separation* does not alter the structure of communication. Intuitively, this outcome occurs when the relative size of the urban economy is large enough to motivate the ruler to adopt *Separation*, but not sufficiently large to justify the costs of establishing *direct* communication with the urban elite. As a consequence, the ruler continues to rely on *indirect* communication even after transitioning to *Separation*.

Proposition E.2 highlights the role played by the cost of establishing a *direct* communication channel with the urban elite in shaping the ruler's incentives to adopt *Separation*. As the cost of *direct* communication increases, a (weakly) larger relative size of the urban economy is required to motivate the ruler to choose *Separation*.[3] The intuition behind this outcome lies in the fact that *indirect* communication under *Integration* is perfectly accurate, making the cost of *direct* communication a burden that impacts only *Separation*.

C Discussion: Incentives to Learn the Common State

In the context of our main model (Sections 2 and 3), we briefly discuss the elites' incentives to learn the realization of the common state θ_P. In the model, for simplicity we assume that A_T have no choice but to listen to either P (under *direct* communication) or A_L (under *indirect* communication). However, learning θ_P comes with potential costs for the urban elite, whose preferences are the least aligned with those of the ruler. As an example, consider the *Integration* scenario in which A_L passes information regarding θ_P to A_T. In this case, learning θ_P can be either beneficial or detrimental to A_T, depending on the relative weight A_T and A_L assign to the common state. If A_T places a high enough weight γ_T on θ_P and this weight is not significantly different from that of A_L (i.e.e, γ_L), then A_T experiences gains from learning θ_P. Conversely, if the weights the elites attach to θ_P differ greatly, with γ_T being low, A_T may suffer a loss from learning θ_P. This is because common knowledge about θ_P leads to actions by the landed elite that move further away from the urban elite's ideal point and result in less internal coordination in the town.

Importantly, A_T's expected benefit from learning θ_P increases as A_T gains control over the regulatory decision in their own unit.[4] This occurs because, relative to *Integration*, A_T can better exploit the newly acquired information to target his own ideal point. This observation underscores

[3] Formally, this result follows from the observation that all thresholds on k_T are either independent of or increasing in f.

[4] Formally, because A_T expects A_L to be informed about θ_P, A_T's expected gain (resp., loss) from perfectly learning θ_P is higher (resp., lower) under *Separation* than under *Integration*.

a complementary mechanism by which the transition from *Integration* to *Separation* promotes the emergence of *direct* communication. Referring back to our main application, the ruler not only seeks to establish *direct* communication with administratively autonomous towns by summoning them to central assemblies, but also urban elites from these towns have strong incentives to participate in central assemblies.

D Imperfect Control under *Integration*

In this section, we modify the core model from Section 2 to account for the possibility that A_L exercises only imperfect control over A_T under *Integration*. Our primary goal is to determine whether P has an incentive to establish *direct* communication with A_T under this modified form of *Integration* and, if so, to analyze the conditions under which P's expected benefit from *direct* communication with A_T increases with A_T's control over urban regulatory decisions under *Separation*.

This analysis has several implications for the organizational structure of kingdoms in medieval and early modern England (and Western Europe more broadly). First, it accounts for the possibility that, even absent self-governance, landed elites might not always have been able to exercise full control over nearby urban communities. Second, it helps explain the inclusion in general assemblies of royal towns with varying levels of autonomy, ranging from towns with standard forms of self-governance (i.e., Farm Grants) to towns that enjoyed additional autonomy (through *non-intromittat* clauses).[5] Third, it provides an explanation for the summoning of numerous non-royal (mesne) towns to general assemblies, in which royal sheriffs (i.e., A_L) held only limited jurisdiction (especially during times of war).[6]

We model imperfect control under *Integration* by modifying the elites' objective functions in (1). Specifically, we assume:

$$U_i(\gamma_i) = -k_i \Bigg\{ \frac{1}{2}\left[\gamma_i\theta_P - a_i\right]^2 + \frac{1}{2}\left[\frac{1}{2}(r_i - a_i)^2 + \frac{1}{2}(a_j - a_i)^2\right] + \\ +\nu (r_i - r_j)^2 + G\mathbb{1}_{R_i=j} \Bigg\}, \tag{S.10}$$

where $i)$ we take the limit as $\nu \to 0^+$ and $ii)$ $\mathbb{1}_{R_i=j}$ is an indicator function taking value 1 if and only if r_i is not chosen by A_i (which, in our setting, can only happen to unit D_T). We comment on its interpretation below. The last quadratic component captures the coordination benefits from

[5] In medieval England, the *non-intromittat* clause granted towns the authority to prohibit the royal sheriff from entering their jurisdiction to carry out nearly any official function. See Ballard and Tait (1923) and Tait (1936) for more details.

[6] More details on mesne towns can be found in Angelucci, Meraglia, and Voigtländer (2022).

harmonizing local regulations across administrative units (e.g., to enjoy the benefits of uniform legislation across the realm). P's payoff is modified accordingly:

$$U_P(\gamma_P) = -\sum i \in \{L, T\} k_i \left\{ \frac{1}{2} [\gamma_P - a_i]^2 + \right. \tag{S.11}$$

$$\left. + \frac{1}{2} \left[\frac{1}{2} (r_i - a_i)^2 + \frac{1}{2} (a_j - a_i)^2 \right] + \nu (r_i - r_j)^2 - G \mathbb{1}_{R_i = j} \right\} - F(C_T),$$

Unlike the analysis in Sections 2 and 3, we exclude local states from the current analysis. This corresponds to the special case of our main model where $\theta_L = \theta_T = 0$ always. This choice significantly streamlines our analysis, making it easier to compare P's expected payoffs under different governance structures without affecting our main intuitions and results. Given $\gamma_P \geq \gamma_L \geq \gamma_T$, *Integration* would always dominate *Separation* in the absence of local adaptation concerns. To avoid this trivial outcome, we introduce a fixed cost G, incurred by unit D_T when A_L chooses r_T. The cost G captures – in reduced form – the adaptation losses that both A_L and P incur when A_T cannot adapt to local conditions θ_T (see Section 3).

We begin by analyzing the case of *Integration* and then proceed to examine the case of *Separation*. For each allocation of decision rights over r_T, we derive P's expected payoffs from *direct* and *indirect* communication. Finally, we compare P's expected gains from engaging in *direct* rather than *indirect* communication with A_T under *Integration* and *Separation*. As mentioned above, in this analysis, we let ν approach zero, effectively disregarding its corresponding component when calculating P's expected payoffs and solving the cheap-talk game between A_L and A_T.

D.1 Integration

Direct Communication. Suppose first that P chooses *Integration* and engages in *direct* communication with both elites – that is, $\boldsymbol{g} = \{L, 1\}$. From (S.10), the FOCs corresponding to the elites' optimization problems are:

$$r_L = r_T = a_L = \left(\frac{4}{5} \gamma_L + \frac{1}{5} \gamma_T \right) \theta_P, \tag{S.12}$$

$$a_T = \left(\frac{2}{5} \gamma_L + \frac{3}{5} \gamma_T \right) \theta_P. \tag{S.13}$$

Unlike (1), the new component accounting for coordination across regulatory actions forces A_L to adopt uniform regulatory actions across both units. This requirement prevents A_L from fully tailoring the regulatory action in unit D_T, thereby limiting A_L's ability to achieve its maximum possible payoff. In this sense, A_L exercises limited control over unit D_T, leaving A_T partial autonomy under *Integration*.

From (S.11), (S.12) and (S.13), P's expected payoff is:

$$U_P = -\Bigg\{ \frac{k_L}{2}\left(\gamma_P - \frac{4}{5}\gamma_L - \frac{1}{5}\gamma_T\right)^2 + \tag{S.14}$$
$$+ \frac{k_T}{2}\left(\gamma_P - \frac{2}{5}\gamma_L - \frac{3}{5}\gamma_T\right)^2 + \left(\frac{k_L}{4} + \frac{k_T}{2}\right)\frac{4}{25}\left(\gamma_L - \gamma_T\right)^2 \Bigg\}\frac{\bar{\theta}^2}{3} - k_T G - f.$$

Indirect Communication. Suppose now that P communicates with A_T indirectly – that is, $\boldsymbol{g} = \{L, 0\}$. Similar to the analysis performed in Section 3.2.1, we first compute the FOCs corresponding to the elites' optimization problems:

$$r_L = r_T = a_L = \frac{2}{3}\gamma_L\theta_P + \left(\frac{2}{15}\gamma_L + \frac{1}{5}\gamma_T\right)\mathbb{E}_T\left(\theta_P \mid m_L\right), \tag{S.15}$$

$$a_T = \left(\frac{2}{5}\gamma_L + \frac{3}{5}\gamma_T\right)\mathbb{E}_T\left(\theta_P \mid m_L\right), \tag{S.16}$$

where m_L denotes the cheap-talk message sent by A_L to A_T. Making use of (S.15)-(S.16), and following the same procedure presented in the proof to Lemma 4, we can derive the following lemma.

Lemma D.1. *Under Integration and 'indirect' communication – i.e.,* $\boldsymbol{g} = \{L, 0\}$ *– there does not exist an equilibrium in which* $m_L = \theta_P \; \forall \theta_P \in \left[-\overline{\theta}, \overline{\theta}\right]$*. In the cheap-talk game between* A_L *and* A_T*, the cutoffs of the finest incentive-compatible partitions are:*

$$\theta_{P,n} = \left(\alpha_L^{Int}\right)^{|n|}\bar{\theta}, \quad with \quad n \in \{-\infty, ..., +\infty\}, \tag{S.17}$$

where $\alpha_L^{Int} = \frac{2\gamma_L + 3\gamma_T}{8\gamma_L - 3\gamma_T + 2\sqrt{15\gamma_L(\gamma_L - \gamma_T)}} \in [0, 1]$*, with the quality of communication improving (*α_L^{Int} *approaching 1) as* γ_T *tends to* γ_L*.*

Proof. The proof follows the procedure established in the proof of Lemma 4, where a) we substitute the FOCs in (15) with those in (S.15)-(S.16), and b), because there are no local states, we set $\theta_{P,0} = 0$ when solving the differential equation (see (A.21) in the proof of Lemma 4). □

In contrast to Lemma 2, Lemma D.1 establishes that, under *Integration*, A_L now has an incentive to misrepresent information. This incentive arises because A_L can only partially leverage its control over r_T to steer A_T's economic decision towards A_L's ideal point.

From (S.11), (S.15) and (S.16), and given the value of α_L^{Int}, we can follow the procedure in

Online Appendix A to compute P's expected payoff:[7]

$$U_P = -\left\{ \frac{k_L}{2} \left[\left(\gamma_P - \frac{2}{3}\gamma_L \right)^2 \frac{\bar{\theta}^2}{3} \right. \right. \tag{S.18}$$
$$\left. - \frac{1}{225}\left(2\gamma_L + 3\gamma_T\right)\left(30\gamma_P - 22\gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Int}\left(1-\alpha_L^{Int}\right)}{1-\left(\alpha_L^{Int}\right)^3}\right)\right]$$
$$+ \frac{k_T}{2}\left[\gamma_P^2 \frac{\bar{\theta}^2}{3} - \frac{1}{25}\left(2\gamma_L + 3\gamma_T\right)\left(10\gamma_P - 2\gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Int}\left(1-\alpha_L^{Int}\right)}{1-\left(\alpha_L^{Int}\right)^3}\right)\right]$$
$$+ \left(\frac{k_L}{4} + \frac{k_T}{2}\right)\left[\frac{4}{9}\gamma_L^2 \frac{\bar{\theta}^2}{3} - \frac{4}{225}\left(2\gamma_L + 3\gamma_T\right)\left(8\gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Int}\left(1-\alpha_L^{Int}\right)}{1-\left(\alpha_L^{Int}\right)^3}\right)\right]$$
$$\left. + k_T G \right\}.$$

Gain from Direct Communication. We can now compute the difference between (S.14) and (S.18) and derive the expected gain to P of engaging in *direct* rather than *indirect* communication with A_T under *Integration*.[8] We obtain:

$$\Delta^{Int} = \left[\frac{\bar{\theta}^2}{3} - \frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Int}\left(1-\alpha_L^{Int}\right)}{1-\left(\alpha_L^{Int}\right)^3}\right)\right] \times \tag{S.19}$$
$$\times \left\{ \frac{2\gamma_L + 3\gamma_T}{25}\left(\frac{k_L}{2}\frac{30\gamma_P - 22\gamma_L - 3\gamma_T}{9} + \frac{k_T}{2}\left(10\gamma_P - 2\gamma_L - 3\gamma_T\right) + \right.\right.$$
$$\left.\left. + \frac{k_L + 2k_T}{4}\frac{4}{9}\left(8\gamma_L - 3\gamma_T\right)\right)\right\} \geq 0.$$

P's expected gain from engaging in *direct* rather than *indirect* communication with A_T can be divided into two components. The first component, in square brackets in the right-hand side of (S.19), is positive and approaches zero as α_L^{Int} approaches one, that is, as γ_T tends to γ_L. This term reflects the increase in information precision obtained through *direct* communication. The second component, in curly brackets, is also positive (from **A2**), and reflects the adjustment in both elites' equilibrium actions in response to the new information available to A_T under *direct* communication.

[7] Unlike (S.7), there is no need to integrate over the support of the two local states.

[8] To facilitate the comparison, note that (S.14) can be written in the same form as (S.18), where we substitute the variance of θ_P – i.e., $\frac{\bar{\theta}^2}{3}$ – for the component $\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Int}\left(1-\alpha_L^{Int}\right)}{1-\left(\alpha_L^{Int}\right)^3}\right)$.

D.2 Separation

Direct Communication. Suppose that P chooses *Separation* and engages in *direct* communication with both elites – that is, $\boldsymbol{g} = \{T, 1\}$. From (S.10), the FOCs corresponding to the elites' optimization problems are:

$$r_L = a_L = \left(\frac{3}{4}\gamma_L + \frac{1}{4}\gamma_T\right)\theta_P, \tag{S.20}$$

$$r_T = a_T = \left(\frac{1}{4}\gamma_L + \frac{3}{4}\gamma_T\right)\theta_P. \tag{S.21}$$

As in the main model presented in Section 2, under *Separation* each elite sets identical regulatory and economic actions.

From (S.11), (S.20) and (S.21), P's expected payoff is:

$$U_P = -\left\{\frac{k_L}{2}\left(\gamma_P - \frac{3}{4}\gamma_L - \frac{1}{4}\gamma_T\right)^2 + \right. \tag{S.22}$$

$$\left. + \frac{k_T}{2}\left(\gamma_P - \frac{1}{4}\gamma_L - \frac{3}{4}\gamma_T\right)^2 + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\frac{1}{4}\left(\gamma_L - \gamma_T\right)^2\right\}\frac{\bar{\theta}^2}{3} - f.$$

Indirect Communication. Suppose now that P communicates with A_T indirectly – that is, $\boldsymbol{g} = \{T, 0\}$. Similar to the analysis performed in Section (3.2.2), we first compute the FOCs corresponding to the elites' optimization problems:

$$r_L = a_L = \frac{2}{3}\gamma_L\theta_P + \left(\frac{1}{12}\gamma_L + \frac{1}{4}\gamma_T\right)\mathbb{E}_T\left(\theta_P \mid m_L\right), \tag{S.23}$$

$$r_T = a_T = \left(\frac{1}{4}\gamma_L + \frac{3}{4}\gamma_T\right)\mathbb{E}_T\left(\theta_P \mid m_L\right), \tag{S.24}$$

where m_L is the cheap-talk message sent by A_L to A_T. Making use of (S.23)-(S.24), and following the same procedure presented in the proof to Lemma 4, we can derive the following lemma.

Lemma D.2. *Under Separation and 'indirect' communication – i.e., $\boldsymbol{g} = \{T, 0\}$ – there does not exist an equilibrium in which $m_L = \theta_P \; \forall \theta_P \in \left[-\overline{\theta}, \overline{\theta}\right]$. In the cheap-talk game between A_L and A_T, the cutoffs of the finest incentive-compatible partitions are:*

$$\theta_{P,n} = \left(\alpha_L^{Sep}\right)^{|n|}\bar{\theta}, \quad with \quad n \in \{-\infty, ..., +\infty\}, \tag{S.25}$$

where $\alpha_L^{Sep} = \frac{\gamma_L + 3\gamma_T}{7\gamma_L - 3\gamma_T + 4\sqrt{3\gamma_L(\gamma_L - \gamma_T)}} \in [0, 1]$, with the quality of communication improving (α_L^{Sep} approaching 1) as γ_T tends to γ_L.

Proof. The proof follows the procedure established in the proof of Lemma 4, where $a)$ we substitute the FOCs in (15) with those in (S.23)-(S.24), and $b)$, because there are no local states, we set $\theta_{P,0} = 0$ when solving the differential equation (see (A.21) in the proof of Lemma 4). □

The reasoning behind the result established in Lemma D.2 closely parallels the argument presented in Lemma 4. From (S.11), (S.23) and (S.24), and given the value of α_L^{Sep}, we can follow the procedure in Online Appendix A to compute P's expected payoff:[9]

$$
\begin{aligned}
U_P = -\Bigg\{ & \frac{k_L}{2}\Bigg[\left(\gamma_P - \frac{2}{3}\gamma_L\right)^2 \frac{\bar{\theta}^2}{3} \\
& - \frac{1}{144}\left(\gamma_L + 3\gamma_T\right)\left(24\gamma_P - 17\gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Sep}\left(1-\alpha_L^{Sep}\right)}{1-\left(\alpha_L^{Sep}\right)^3}\right)\Bigg] \\
& + \frac{k_T}{2}\left[\gamma_P^2\frac{\bar{\theta}^2}{3} - \frac{1}{16}\left(\gamma_L + 3\gamma_T\right)\left(8\gamma_P - \gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Sep}\left(1-\alpha_L^{Sep}\right)}{1-\left(\alpha_L^{Sep}\right)^3}\right)\right] \\
& + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\left[\frac{4}{9}\gamma_L^2\frac{\bar{\theta}^2}{3} - \frac{1}{36}\left(\gamma_L + 3\gamma_T\right)\left(7\gamma_L - 3\gamma_T\right)\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Sep}\left(1-\alpha_L^{Sep}\right)}{1-\left(\alpha_L^{Sep}\right)^3}\right)\right]\Bigg\}.
\end{aligned}
\tag{S.26}
$$

Gain from Direct Communication. We can now compute the difference between (S.22) and (S.26) and derive the expected gain to P of engaging in *direct* rather than *indirect* communication with A_T under *Separation*.[10] We obtain:

$$
\begin{aligned}
\Delta^{Sep} = & \left[\frac{\bar{\theta}^2}{3} - \frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Sep}\left(1-\alpha_L^{Sep}\right)}{1-\left(\alpha_L^{Sep}\right)^3}\right)\right] \times \\
& \times \left\{\frac{\gamma_L + 3\gamma_T}{4}\left(\frac{k_L}{2}\frac{24\gamma_P - 17\gamma_L - 3\gamma_T}{36} + \frac{k_T}{2}\frac{8\gamma_P - \gamma_L - 3\gamma_T}{4}\right.\right. \\
& \left.\left. + \frac{k_L + k_T}{4}\frac{7\gamma_L - 3\gamma_T}{9}\right)\right\} \geq 0.
\end{aligned}
\tag{S.27}
$$

Like the case of *Integration*, P's expected gain from engaging in *direct* rather than *indirect* communication with A_T can be divided into two components. The first component, in square brackets in the right-hand side of (S.27), is positive and approaches zero as α_L^{Sep} approaches one, that is, as γ_T tends to γ_L. This term reflects the increase in information precision obtained through *direct*

[9] Unlike (S.7), there is no need to integrate over the support of the two local states.

[10] To facilitate the comparison, note that (S.22) can be written in the same form as (S.26), where we substitute the variance of θ_P – i.e., $\frac{\bar{\theta}^2}{3}$ – for the component $\frac{\bar{\theta}^2}{4}\left(1 + \frac{\alpha_L^{Sep}\left(1-\alpha_L^{Sep}\right)}{1-\left(\alpha_L^{Sep}\right)^3}\right)$.

communication. The second component, in curly brackets, is also positive (from **A2**), and reflects the adjustment in both elites' equilibrium actions in response to the new information available to A_T under *direct* communication.

D.3 Comparing Gains from Direct Communication

Having computed P's expected gains from engaging in *direct* rather than *indirect* communication with A_T under both *Integration* and *Separation*, we now ask whether increasing A_T's autonomy – i.e., transitioning from *Integration* to *Separation* – always provides P with greater incentives to open a *direct* communication link with A_T. In other words, we ask whether $\Delta^{Sep} \geq \Delta^{Int}$.

To address this question, the following proposition begins by comparing the precision of information transmission between A_L and A_T under *Integration* and *Separation*.

Proposition D.1. *Under 'indirect' communication, the quality of communication is higher under Integration than under Separation, i.e., $\alpha_L^{Int} \geq \alpha_L^{Sep}$.*

Proof. The proof proceeds by comparing α_L^{Int} and α_L^{Sep} as defined in Lemmas D.1 and D.2, respectively. To establish the result, note that both α_L^{Int} and α_L^{Sep} increase with γ_T, where $\alpha_L^{Int} \leq \alpha_L^{Sep}$ for $\gamma_T = 0$ (with equality holding when $\gamma_L = 0$), and $\alpha_L^{Int} = \alpha_L^{Sep}$ for $\gamma_T = \gamma_L$. □

Proposition D.1 shows that A_L has greater incentives to misrepresent θ_P under $Separation$ than under *Integration*. In other words, the quality of information transmission from A_L to A_T declines as A_L loses regulatory control over unit D_T and, consequently, influence over A_T's economic action. This loss of control over urban regulation motivates A_L to attempt to influence A_T's actions – both regulatory and economic – through information manipulation. This result has direct implication for the comparison between $\Delta^{Sep} \geq \Delta^{Int}$. Because the component in square brackets in both (S.19) and (S.27) decreases as the quality of communication improves, $\alpha_L^{Int} \geq \alpha_L^{Sep}$ implies that this component is lower under *Integration* than under *Separation*. In what follows, we refer to this as the *information effect*.

We now turn to comparing the components in curly brackets in (S.19) and (S.27). Given **A2**, the component in (S.19) is higher than that in (S.27), with the difference between the two components diminishing as γ_T increases. If we were to fix the quality of communication exogenously, such that $\alpha_L^{Int} = \alpha_L^{Sep}$, P would have a stronger incentive to engage in *direct* communication with A_T under *Integration* than under *Separation*. We will refer to this phenomenon as the *adjustment effect*. Intuitively, under *Separation*, more decisions are made by the elite who place less emphasis on the common state θ_P. As a consequence, *all* actions are less responsive to the more accurate information provided through *direct* communication under *Separation* than under *Integration*. This under-reaction diminishes as A_T places more weight on the common state, meaning it decreases as γ_T increases.

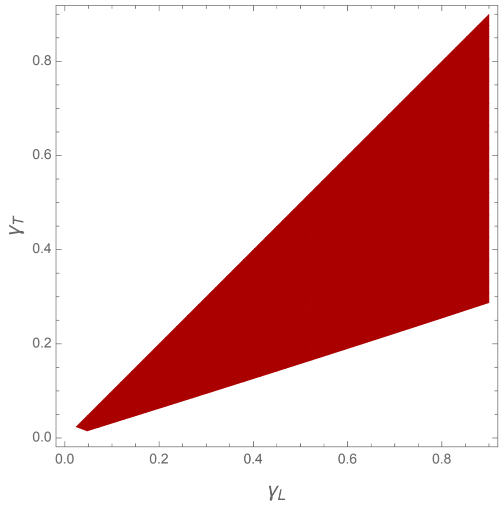
We therefore have two opposing forces: On the one hand, because information transmission is less accurate under *Separation*, all else equal, the *information effect* implies that there is greater scope for P to benefit from *direct* communication with A_T under *Separation* than under *Integration*. On the other hand, because actions respond more strongly to precise information under *Integration*, all else equal, the *adjustment effect* implies that P has a stronger incentive to improve communication quality by engaging in *direct* communication with A_T under *Integration* than under *Separation*.

Given the complexity and high non-linearity of the expressions for Δ^{Int} and Δ^{Sep}, deriving precise parameter thresholds analytically is challenging. To address this, we employ numerical calculations. Assuming various specific values of k_T/k_L and γ_P, Figure S.1 shows that, for any value of γ_L, $\Delta^{Sep} > \Delta^{Int}$ for γ_T sufficiently high – that is, the *information effect* dominates the *adjustment effect* when A_T places sufficient weight on the common state.[11]

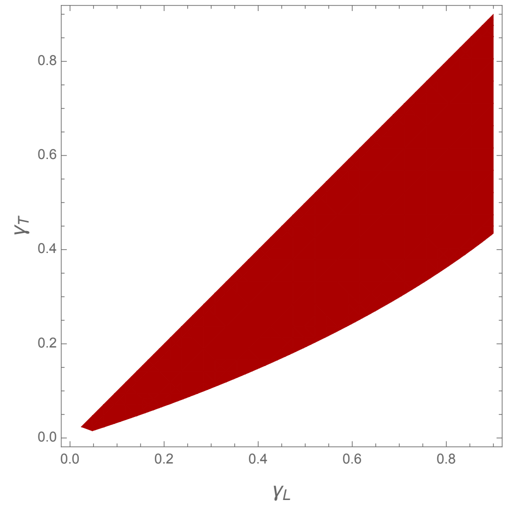
To build intuition for why sufficiently high values of γ_T are necessary for P to benefit more from *direct* communication with A_T as A_T gains control over more actions, consider the following extreme example (which, formally speaking, is not part of our analysis). Suppose P chooses between *Separation* and an extreme form of *T-Integration* granting A_T *full* control over both units – that is, A_T chooses a_T, a_L, r_T and r_L. Assume $\gamma_L > 0$ and $\gamma_T = 0$. Under *T-Integration*, P has no benefit from informing A_T about θ_P, as A_T has no intrinsic motivation to act on this information. By contrast, under *Separation*, there is scope for communication because A_T indirectly values θ_P to coordinate his actions with A_L, who bases decisions on information about θ_P. This example illustrates why an elite with limited interest in the common state may be more likely to engage in *direct communication* with the center when he enjoys less autonomy, that is, when he controls fewer actions.

To summarize, under *Integration*, *indirect* communication no longer results in perfectly accurate information transmission from the landed to the urban elite. This observation has two implications. First, when the cost of establishing a *direct* communication channel with the urban elite is sufficiently low, *direct* communication can also emerge under *Integration*. This is in line with the general spirit of our paper, where imperfect control results in *de facto* limited autonomy for the urban elite, generating a need for the ruler to establish a *direct* communication channel with them. This result rationalizes the inclusion in the English medieval Parliament of many boroughs belonging to local (*mesne*) lords where sheriffs exerted only limited control (Angelucci et al., 2022). Second, the ruler is more incentivized to establish a *direct* communication channel with the urban elite under *Separation* than under this limited form of *Integration*, but only if the urban elite place a sufficiently high weight on the common state. Intuitively, on one hand, similar to our baseline setup, compared to *Integration*, *Separation* results in less accurate information transmission

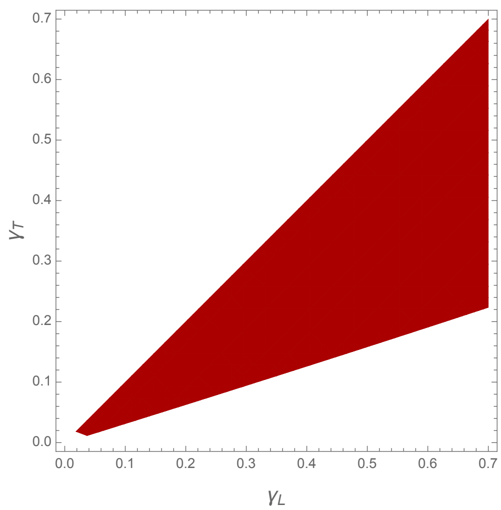
[11]The cost of communication f and the variance of θ_P are irrelevant when comparing Δ^{Int} to Δ^{Sep}.



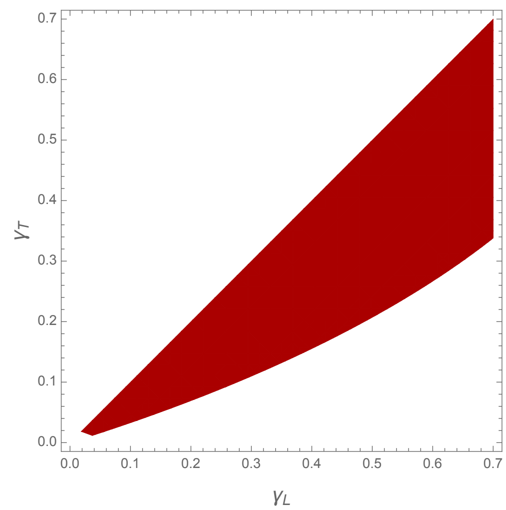
(a) Baseline γ_P and low k_T



(b) Baseline γ_P and high k_T



(c) Low γ_P and low k_T



(d) Low γ_P and high k_T

Figure S.1: Incentives for Direct Communication with Town: Integration (with Imperfect Control) vs. Separation

Note: The figure shows in red the range of values for elites' preferences $\{\gamma_L, \gamma_T\}$, where $\gamma_L \geq \gamma_T$, such that P's expected payoff from establishing *direct* communication with A_T is higher under *Separation* than under *Integration* (with imperfect control) – i.e., $\Delta^{Sep} \geq \Delta^{Int}$. Baseline (resp., low) value of γ_P corresponds to $\gamma_P = 0.9$ (resp., $\gamma_P = 0.7$). Similarly, high (resp., low) value of k_T corresponds to $k_T = 1.2$ (resp., $k_T = 0.2$). In all four panels, the value of k_L is fixed at 1, and the value of the variance of the common state is fixed at its baseline value ($\overline{\theta} = 5\sqrt{3}$).

through *indirect* communication, making the ruler's expected benefits from *direct* communication greater under *Separation*. On the other hand, because γ_L is closer to γ_P than γ_T is, perfectly informing the urban elite (A_T) through *direct* communication holds greater potential for coordinating actions toward the ruler's preferred policy under (this limited form of) *Integration* than under *Separation*. Overall, we have shown that the former effect outweighs the latter as the urban elite's preferences for the common state are closer to those of the ruler and the landed elite.

E Bottom-Up Communication

We explore an alternative informational environment that has received significant attention in the historical literature on assemblies. Specifically, we examine a scenario where assemblies function as a forum for the ruler to acquire information about conditions in the localities. We modify our main set-up i) by making θ_P publicly observable, ii) by making θ_T unobservable to P (but observable to A_L), and iii) by having P take an action a_P. To illustrate, in the context of a war threat, the action a_P could be understood as the proportion of her own resources P allocates to different objectives. Point i) eliminates the need for P to communicate the common state.[12] In contrast, points ii) and iii) create the need for P to learn θ_T. To maintain simplicity, we retain the assumptions that a) θ_L is publicly observable, and b) P always communicates with A_L at no cost.

We now describe the players' payoffs. A_i's ex-post payoff is:

$$U_i(\gamma_i) = -k_i \Bigg\{ \frac{1}{2}\left[\gamma_i\theta_P + (1-\gamma_i)\theta_i - a_i\right]^2 + \frac{1}{2}\left[\frac{1}{3}(r_i - a_i)^2 + \frac{1}{3}(a_j - a_i)^2 + \frac{1}{3}\underbrace{(a_P - a_i)^2}_{\text{Coord. P-Elite}}\right]\Bigg\}. \tag{S.28}$$

Compared to (1), A_i benefits from (*externally*) coordinating his economic action a_i with the action a_P chosen by P. In our historical context, this term captures a dependency between the choices made by the ruler and those made by the elites. For example, the urban elite's success in carrying the trade of wheat is contingent on the proportion of resources the ruler allocates to maintaining and expanding roads that connect wheat producers with consumers. Further, P's ex-post payoff is:

$$U_P(\gamma_P) = -\sum_{i\in\{L,T\}} k_i \Bigg\{ \frac{1}{2}\left[\gamma_P\theta_P + (1-\gamma_P)\theta_i - a_i\right]^2 + \frac{1}{2}\left[\frac{1}{3}(r_i - a_i)^2 + \frac{1}{3}(a_j - a_i)^2 + \frac{1}{3}\underbrace{(a_P - a_i)^2}_{\text{Coord. P-Elite}}\right]\Bigg\} - F(C_T), \tag{S.29}$$

[12] Because optimal actions are linear with respect to common and local states, assuming that θ_P is private information (as in Sections 2 and 3) does not affect our findings.

where, $F(\cdot)$ is the cost of establishing a *direct* communication channel with A_T. From (S.29), P has an incentive to coordinate her action with both elites' economic actions. Therefore, each elite has incentives to manipulate both P's action and that of the other elite, and a way to do so is to exploit the information about θ_T provided to P.

E.1 The Game of Complete Information

We start by considering the case in which $\{\theta_P, \theta_L, \theta_T\}$ are common knowledge.

Integration: Suppose A_L sets regulatory decisions in both D_L and D_T, that is, $R_T = L$. Equilibrium choices are given by (6) and:

$$a_P = (1-\gamma_L)\,\theta_L + \gamma_L \theta_P, \tag{S.30}$$

$$r_T = 4(1-\gamma_L)\,\theta_L - 3(1-\gamma_T)\,\theta_T + (4\gamma_L - 3\gamma_T)\,\theta_P. \tag{S.31}$$

As in the main analysis, A_L exploits his administrative control over D_T to achieve perfect internal and external coordination around his ideal point. This, in turn, induces P to also select an action that matches A_L's ideal point. As a result, P's action is independent of θ_T.

From (S.29), (6), (S.30) and (S.31), P's expected payoff is:

$$\begin{aligned} U_P = &-\left\{\frac{k_L}{2}(\gamma_P-\gamma_L)^2 + k_T\left[2(1-\gamma_L)^2 + \frac{3}{2}(1-\gamma_T)^2 + \frac{(1-\gamma_P)^2}{2}\right]\right\}\frac{\theta^2}{3} \\ &-\left\{\frac{k_L}{2}(\gamma_P-\gamma_L)^2 + k_T\left[\frac{(\gamma_P-\gamma_L)^2}{2} + \frac{3}{2}(\gamma_L-\gamma_T)^2\right]\right\}\frac{\bar{\theta}^2}{3}. \end{aligned} \tag{S.32}$$

Separation: When P chooses $R_T = T$, at equilibrium both elites set $r_i = a_i$, for $i = \{L, T\}$. Players' equilibrium choices are:

$$\begin{aligned} a_P = &\frac{5k_L + k_T}{6(k_L+k_T)}(1-\gamma_L)\,\theta_L + \frac{k_L + 5k_T}{6(k_L+k_T)}(1-\gamma_T)\,\theta_T \\ &+ \frac{(5k_L+k_T)\,\gamma_L + (k_L+5k_T)\,\gamma_T}{6(k_L+k_T)}\theta_P, \end{aligned} \tag{S.33}$$

$$\begin{aligned} r_i = a_i = &\frac{5k_i + 4k_j}{6(k_i+k_j)}(1-\gamma_i)\,\theta_i + \frac{k_i + 2k_j}{6(k_i+k_j)}(1-\gamma_j)\,\theta_j \\ &+ \frac{(5k_i+4k_j)\,\gamma_i + (k_i+2k_j)\,\gamma_j}{6(k_i+k_j)}\theta_P, \end{aligned} \tag{S.34}$$

for $i, j \in \{L, T\}$ and $i \neq j$, where (S.34) is identical to (9) for $k_L = k_T$. Unlike the baseline analysis, elites' choices now incorporate the economic significance of each unit. This characteristic arises due to the incentive elites possess to align their economic actions with the action taken by P, who, in turn, takes into account the relative sizes of the two units. As a result, a larger value of k_i relative to that of k_j leads to actions that are closer to A_i's ideal point.

Building on this logic, the next lemma asserts that, from P's perspective, *Separation* results in a greater expected loss associated with unit D_L compared to *Integration*. Moreover, all else equal, the difference in expected losses from D_L between the two governance structures grows as k_T increases.

Lemma E.1. *Under complete information, P's expected payoff associated with unit D_L (i) is higher under Integration than under Separation, and (ii) is independent of (resp., increasing in) k_T under Integration (resp., Separation).*

Proof. See Online Appendix E.3. □

Similar to the reasoning presented in Section 3.1, Lemma E.1 implies that *Separation* can be appealing to P only if she anticipates that it will reduce the losses incurred from unit D_T relative to *Integration*.

To focus squarely on the case of interest, we impose the following assumptions:

$$\textbf{A5:} \quad k_T \leq k_L, \qquad \textbf{A6:} \quad \gamma_P = \gamma_L = \gamma_T.$$

A5 introduces an upper-bound on the economic potential of the urban economy. This assumption simplifies the analysis by allowing us to better leverage the fact that elites' decisions under *Separation* are identical in both the main model (Sections 2 and 3) and this extension. **A6** imposes perfect homogeneity in preferences for the common state among all players. Based on the results established in Lemma 1 and Proposition 1 in the main model (Section 3), this assumption further simplifies the analysis by creating conditions under which *Separation* emerges as a potentially profitable governance structure for the ruler. Building on this intuition, the following lemma shows that, under **A6**, *Separation* increases P's expected payoff from the urban area relative to *Integration*.

Lemma E.2. *Under assumption **A6**, in the complete information game, P's expected payoff associated with unit D_T is higher under Separation than under Integration when $k_T = k_L$.*

Proof. See Online Appendix E.3. □

Equilibrium Governance Structure: The following proposition builds on the results from Lemmas E.1 and E.2 to determine the equilibrium governance structure in the complete information game when the urban area's economic potential, relative to that of the landed area, is either low or high.

Proposition E.1. *Under assumption **A6**, in the complete information game, there exists a threshold $\underline{k}^E$ such that P chooses Integration for $k_T \in \left[0, \underline{k}^E\right)$. Also, there exists a threshold $\overline{k}^E$ such that P chooses Separation for $k_T \in \left[\overline{k}^E, k_L\right]$.*

Proof. See Online Appendix E.3. □

Proposition E.1 mirrors the findings established for the main model (see Section 3.1), whereby P optimally allocates administrative autonomy to the urban elite as the economic importance of the town grows sufficiently large relative to that of the rural area.[13]

E.2 The Game of Incomplete Information

Suppose now that P lacks information about θ_T. P can gather information in two ways. One option is to open a *direct* communication channel with A_T. This option comes at a cost f, and it enables P to acquire hard evidence regarding θ_T. For example, *direct* communication with A_T allows access to documentation and other forms of evidence related to the state of the urban economy. Alternatively, P can rely on A_L's cheap-talk message m_L^R (*indirect* communication), and we assume that this communication channel is costless. As in the main analysis, this assumption reflects a situation where P and A_L already communicate for reasons not explicitly modeled.

Next, we examine the optimal decisions and communication structures under *Integration* and under *Separation*.

Integration: Under *Integration*, P's action is independent of θ_T (see (S.30) and (S.31)). Thus, incomplete information is inconsequential, and all actions and payoffs are identical to those in the game of complete information.

Lemma E.3. *Under Integration, P does not engage in 'direct' communication with A_T.*

Proof. Since a_P is independent of θ_T at equilibrium, P does not choose *direct* communication to save f. □

When comparing the main framework discussed in Sections 2 and 3 to the framework examined here, we observe that Lemma 3 and Lemma E.3 lead to similar outcomes, albeit for different reasons. In the main framework analyzed in Section 3, when A_L has control over D_T, P can effectively utilize A_L as a reliable intermediary to convey information about θ_P to A_T. This is possible because A_L can better exploit his control over D_T when both elites have symmetric information. Here, A_L's control over D_T renders P's action independent of the conditions prevailing in D_T, thereby eliminating the necessity for communication concerning θ_T. In both cases, an integrated structure implies that *direct* communication between P and the 'controlled' elite (A_T) is unnecessary.

Separation: Under *Separation*, P's information regarding θ_T affects all players' equilibrium actions, as shown in (S.37), (S.38) and (S.39). The following lemma states that P can only obtain

[13] In Proposition E.1, we refrain from characterizing the equilibrium governance structure for all values of $\{k_T, k_L\}$ due to the non-linearity of decisions with respect to $\{k_L, k_T\}$ under *Separation*.

coarse information about θ_T when relying on the message sent by A_L.

Lemma E.4. *Under Separation and 'indirect' communication, there does not exist an equilibrium in which $m_L^R = \theta_T$, $\forall \theta_T \in \left[\underline{\theta}, \overline{\theta}\right]$.*

Proof. The result follows from observing that the expected utilities of P and A_L differ. □

Intuitively, when A_L lacks control over D_T, A_L has an incentive to misrepresent θ_T in order to sway P's action and, ultimately, that of A_T towards his own ideal point.

To characterize P's preferred communication structure under *Separation*, we ask whether P gains from gathering better information about θ_T by opening a *direct* communication channel with A_T. More accurate information improves coordination between P and A_T. However, it results in actions closer to A_T's ideal point, which i) may cause a bigger expected loss if γ_P and γ_T are very different, and ii) leads to higher expected losses from unit D_L. This latter concern is particularly pronounced when $k_T << k_L$. The following lemma builds on these intuitions and states sufficient conditions under which P finds it profitable to learn θ_T. In accordance with our analysis in Section 3, we set $f = \epsilon$, with $\epsilon > 0$ as small as one likes (**A3**), while relaxing assumption **A6**.

Lemma E.5. *Fix k_L. Suppose $f = \epsilon$, with $\epsilon > 0$ set arbitrarily small. If (i) k_T is in an open neighborhood of k_L such that $k_T \leq k_L$, and (ii) $\{\gamma_P, \gamma_L, \gamma_T\}$ are in an open neighborhood of $\gamma_P = \gamma_L = \gamma_T$ such that $\gamma_P \geq \gamma_L \geq \gamma_T$ (i.e., when players' preferences for the common state are sufficiently homogeneous), P chooses 'direct' communication under Separation.*

Proof. See Online Appendix E.3. □

As the urban economy becomes important relative to the landed economy and as elites' preferences tend to coincide with those of P, the latter has an incentive to gather accurate information about local conditions in the urban area to ensure better adaptation in D_T and better overall coordination on θ_T. While the conditions on players' preferences identified in Lemma E.5 satisfy **A6**, they also suggest that our main result hold when **A6** is relaxed but players' preferences remain sufficiently homogeneous.

Equilibrium Governance Structure: We now leverage the findings established in Lemma E.3 through Lemma E.5 to examine P's preferred allocation of administrative control over local units *and* communication structure. Following the result established in Lemma E.5, we focus on the case in which players' preferences are perfectly homogeneous (**A6**).

Proposition E.2. *Fix k_L. Suppose $f = \epsilon$, with $\epsilon > 0$ set arbitrarily small. In the incomplete information game, under assumption **A6**, there exists a threshold $\underline{k}^*$ such that P chooses Integration and 'indirect' communication for $k_T \in [0, \underline{k}^*)$. Also, there exists a threshold $\overline{k}^*$ such that P chooses Separation and 'direct' communication for $k_T \in \left[\overline{k}^*, k_L\right]$.*

Proof. See Online Appendix E.3. □

Proposition E.2 complements the result established in Proposition 2 for our baseline framework. Irrespective of whether information flows from the ruler to the elites (Sections 2 and 3) or viceversa, when *all* players have (sufficiently) homogeneous preferences, the increasing economic potential of a particular unit (the town) leads to the local (urban) elite assuming administrative control within that unit. This administrative change triggers alterations in the communication structure between center and localities. Elites vested with administrative control over a specific unit gain direct access to the center, enabling them to gather (from the ruler) and relay (to the ruler) firsthand information about common and local states. Direct access serves as a safeguard against intermediaries manipulating information to influence decisions that are no longer under their control. As a result, the establishment of direct communication channels between the central ruler and the elites in control of local administrations enhances the overall organizational response to both common and local shocks.

E.3 Bottom-Up Communication: Proofs

Proof of Lemma E.1. The proof of point $i)$ follows from (6)-(S.30)-(S.31) and (S.33)-(S.34). Specifically, for all k_T, compared *Integration*, P incurs a bigger loss from D_L under *Separation* due to $a)$ worse adaptation (given **A2**) and $b)$ worse *overall* coordination.

Concerning point $ii)$ in the lemma, first note that equilibrium choices under *Integration* are independent of k_T. This proves that P's payoff associated to unit D_L is independent of k_T under *Integration*. Under *Separation*, equilibrium actions (S.33)-(S.34) are a function of k_T. By substituting (S.33)-(S.34) in (S.29), the only components affected by k_T are $a)$ the adaptation component and $b)$ the coordination component between a_P and a_L. From (S.33)-(S.34), as k_T increases, all actions attach a higher weight to the terms $(1-\gamma_T)\,\theta_T$ and $\gamma_T\theta_P$. At the same time, all actions attach a lower weight to the terms $(1-\gamma_L)\,\theta_L$ and $\gamma_L\theta_P$. Also, a_P varies more than a_L at equilibrium. These effects result in greater mis-adaptation within D_L and less coordination between P's action and A_L's action. This proves point $ii)$ in the lemma. ■

Proof of Lemma E.2. Let us set $k_T = k_L$. Then, (S.34) is identical to (9).

From (S.32), P's expected loss from unit D_T under *Integration* is:

$$k_T\left[2\left(1-\gamma_L\right)^2+\frac{3}{2}\left(1-\gamma_T\right)^2+\frac{\left(1-\gamma_P\right)^2}{2}\right]\frac{\theta^2}{3}+ \\ +\,k_T\left[\frac{\left(\gamma_P-\gamma_L\right)^2}{2}+\frac{3}{2}\left(\gamma_L-\gamma_T\right)^2\right]\frac{\bar{\theta}^2}{3}. \tag{S.35}$$

From (S.33) and (S.34), P's expected loss from unit D_T under *Separation* is:

$$k_T \left[\frac{1}{12}(1-\gamma_L)^2 + \frac{5}{96}(1-\gamma_T)^2 + \frac{1}{2}\left(1-\gamma_P - \frac{3}{4}(1-\gamma_T)\right)^2 \right] \frac{\theta^2}{3} + \\ + k_T \left[\frac{1}{2}\left(\gamma_P - \frac{1}{4}\gamma_L - \frac{3}{4}\gamma_T\right)^2 + \frac{5}{96}(\gamma_L - \gamma_T)^2 \right] \frac{\bar{\theta}^2}{3}. \tag{S.36}$$

Given **A6**, the result stated in the lemma follows by comparing (S.35) to (S.36). ■

Proof of Proposition E.1. From Lemma E.1, P prefers *Integration* to *Separation* when $k_T = 0$. Furthermore, substituting (S.33) and (S.34) into (S.29), and comparing P's resulting expected payoff to (S.32), it follows that, under assumption **A6**, P prefers *Separation* to *Integration* when $k_T = k_L$.

From these two observations, and by continuity of payoff functions with respect to $\{k_T, k_L\}$, we can conclude that:

- there exist a threshold $\underline{k}^E$, with $\underline{k}^E < k_L$, such that P prefers *Integration* to *Separation* for $k_T \in \left[0, \underline{k}^E\right)$;
- there exist a threshold $\overline{k}^E$, with $\overline{k}^E < k_L$, such that P prefers *Separation* to *Integration* for $k_T \in \left[\overline{k}^E, k_L\right]$.

■

Proof of Lemma E.5. We begin the proof by reporting players' equilibrium actions under *Separation*. Specifically, we have:

$$a_P = \frac{5k_L + k_T}{6(k_L + k_T)}(1-\gamma_L)\theta_L + \frac{k_L + 5k_T}{6(k_L + k_T)}(1-\gamma_T)\mathbb{E}_P(\theta_T) \\ + \frac{(5k_L + k_T)\gamma_L + (k_L + 5k_T)\gamma_T}{6(k_L + k_T)}\theta_P, \tag{S.37}$$

$$r_L = a_L = \frac{5k_L + 4k_T}{6(k_L + k_T)}(1-\gamma_L)\theta_L + \frac{1}{8}(1-\gamma_T)\theta_T \\ + \frac{5k_L + k_T}{24(k_L + k_T)}(1-\gamma_T)\mathbb{E}_P(\theta_T) + \frac{(5k_L + 4k_T)\gamma_L + (k_L + 2k_T)\gamma_T}{6(k_L + k_T)}\theta_P, \tag{S.38}$$

$$r_T = a_T = \frac{5}{8}(1-\gamma_T)\theta_T + \frac{5k_T + k_L}{6(k_L + k_T)}(1-\gamma_T)\mathbb{E}_P(\theta_T) \\ + \frac{2k_L + k_T}{6(k_L + k_T)}(1-\gamma_L)\theta_L + \frac{(5k_T + 4k_L)\gamma_T + (k_T + 2k_L)\gamma_L}{6(k_L + k_T)}\theta_P, \tag{S.39}$$

where $\mathbb{E}_P(\theta_T)$ denotes P's expectation about θ_T, which varies depending on the communication between ruler and elites. Under *indirect* communication between P and A_T, P forms beliefs $\mathbb{E}_P\left(\theta_T \mid m_L^R\right)$. Under *direct* communication, $\mathbb{E}_P(\theta_T) = \theta_T$ because information is verifiable.

To prove the result, we set $k_L = k_T$ and $\gamma_P = \gamma_L = \gamma_T$. We first compute P's expected loss when $\mathbb{E}_P(\theta_T) = \theta_T$ (i.e., under *direct* communication). In this case, actions are given by (S.33) and (S.34). We then plug the relevant actions in P's expected utility given by (S.29). We compare P's expected loss under *direct* communication between P and A_T to that P's expected loss under *indirect* communication. In the latter case, Lemma E.4 establishes that the most informative equilibrium of the cheap-talk game played between A_L and P does not result in truthful information revelation. Given $f = \epsilon$, this information loss in turn implies that P's expected payoff under *indirect* communication is lower than that under *direct* communication, which finally proves the lemma. ■

Proof of Proposition E.2. Consider first the case in which P chooses *Integration*. From Lemma E.3, P chooses *indirect* communication. Also, in this case, players' actions and payoffs are identical to the case of complete information.

Second, consider the case in which P chooses *Separation*. Because we focus on the case in which players' preferences are sufficiently homogeneous, from Lemma E.5, for sufficiently high values of k_T, P's preferred communication structure involves *direct* communication with A_T. In this case, players' actions and payoffs are also equal to those in the complete information game, but for the extra-cost $f = \epsilon$ incurred by P.

The result thus follows from Proposition E.1. ■

F Historical Applications: Additional Results

This appendix complements the empirical results and historical background that we presented in Section 5 in the paper.

F.1 England During the Commercial Revolution

Economic Potential of Towns. In Panel A of Figure 8 in the paper we show that towns with higher trade potential were significantly more likely to obtain self-governance. Columns 1-3 in Table S.1 complement these results. First, column 1 shows the baseline result, where the coefficient on the *Trade Geography* dummy reflects the (statistically highly significant) *difference* between towns with and without location on a navigable river, the sea coast, or an ancient Roman road. Column 2 shows that this result is essentially unchanged when we control for county (shire) fixed effects for overall 40 shires. The result is also very similar when we control for taxable wealth, as assessed by the Domesday book in 1086 (which is available for 83 royal boroughs in our dataset).[14]

Alignment of Preferences: Murage Grants. Next, we turn to the results on alignment of preferences that we illustrate in Panel B in Figure 8. In the Middle Ages, royal grants of Murage (walls) gave townsmen the right to collect taxes for the maintenance of town walls (Ballard and Tait, 1923, p. lxviii). As discussed in the main text, we use Murage grants as a proxy for the alignment of preferences between the crown and the respective towns.[15] In the context of Roman Britain, Salway (1981) suggests that emperors were selective in awarding Murage grants to local communities: they tended to be bestowed upon urban communities whom the ruler trusted sufficiently (pp. 219 and 261).[16] Among the 141 royal towns in our pre-1348 dataset, 45 obtained the right to collect Murage before 1348.

In column 4 of Table S.1 we show the results corresponding to Panel B in Figure 8. Within the two categories, there are 37 towns with trade geography and Murage grants, and 70 towns with trade geography but no Murage grants. The excluded category are the towns without trade geography. The coefficients show that towns with both Murage and trade geography were significantly more likely to receive self-governance than towns that only had trade geography. This result also holds when we control for county fixed effects (col 5) or for taxable wealth (col 6). In addition, the results hold even in a restricted sample in column 7, where we only include royal towns within 50 km of the border to Scotland or Wales. Because those towns were under frequent threat of war, they were presumably important to the ruler (high γ_P). Within this subset, towns that also had Murage grants were arguably particularly closely aligned with the crown (high γ_T). Thus, the strong results within the border sample in column 7 suggest that our findings are indeed driven by an alignment of town preferences with the crown.

Towns in Parliament. Table S.2 complements Figure 8 in the paper. Column 1 corresponds to Panel C in the figure, with the coefficient representing the difference in parliamentary representation of self-governing towns, as compared to those without self-governance rights. The highly significant result is robust to including county fixed effects (col 2) and to controlling for taxable wealth (col 3, which complements the balancing results shown in Panel D of Figure 8). Column 4 regresses parliamentary representation directly on trade geography, showing a strong coefficient. When we add the indicator for self-governance to the regression (col 5), the coefficient on trade geography becomes small and statistically insignificant, while self-governance has a large and significant coefficient. This suggests that the link between trade and representation in Parliament

[14] 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." We describe these data in more detail in the online appendix to Angelucci et al. (2022).

[15] We code the information on Murage grants from http://www.gatehouse-gazetteer.info/murage/murindex.html.

[16] One caveat is that Murage grants may also reflect unobserved organizational capacity of towns, which in turn may also lead to self-governance.

Table S.1: Towns Receiving Self-Governance: Robustness of Results

Dependent variables: Indicator for Town Obtaining Self-Governance by 1348

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Role of Trade Potential			Alignment with the Crown			
Note:							Border Sample#
Trade Geography	0.383***	0.379***	0.325***				
	(0.085)	(0.096)	(0.108)				
Trade Geogr. & Murage				0.680***	0.766***	0.585***	0.700***
				(0.085)	(0.099)	(0.134)	(0.146)
Trade Geogr., no Murage				0.175*	0.132	0.237**	0.208
				(0.093)	(0.101)	(0.115)	(0.166)
ln(Taxable wealth in 1086)			0.102***			0.073*	
			(0.037)			(0.040)	
County FE		✓			✓		
Mean Dep. Var.	0.50	0.50	0.49	0.50	0.50	0.49	0.45
R^2	0.11	0.30	0.18	0.30	0.50	0.25	0.35
Observations	141	141	83	141	141	83	38

Note: This table complements Panels A and B in Figure 8 in the paper. Note that all specifications here include a constant term, so that the coefficients reflect the differences with respect to the constant (e.g., in column 1, the difference to towns without trade geography). The table shows that the results on town self-governance are robust to including county fixed effects (for 40 medieval shires) and to controlling for taxable wealth as assessed in the Domesday Book of 1086 (this variable is available for a subset of 83 royal towns). All regressions are run at the town level. Robust standard errors in parentheses. Key: *** significant at 1%; ** 5%; * 10%.
Border sample includes only towns within 50km of the border to Wales or Scotland.

indeed ran through self-governance, as implied by our model. We present rich additional evidence on this mechanism in Angelucci et al. (2022).

F.2 Spanish America

In what follows, we discuss how our model's predictions regarding the ruler's and elites' preferences, as well as the economic potential of towns, also apply to the administrative organization of the Spanish colonies during an earlier period – before the first half of the 17th century.

In the 16th century, the Spanish crown organized conquered territories into vice-royalties, each with provinces headed by tribunals (*audiencias*) overseeing provincial officials (governors, *corregidores* and *alcaldes mayores*). Spanish settlers established municipalities in the colonies with a governance structure similar to Castilian towns, featuring a municipal governing body (*cabildo*) consisting of mayors, aldermen (*alcaldes ordinarios* and *regidores*), and other minor officials.[17] Initially, the *cabildos* were dominated by local producers who exploited indigenous labor

[17] This discussion focuses on Spanish settlers and institutions that largely excluded indigenous elites. Our framework can explain this setting by reinterpreting the two elites in the model as the Spanish elite and the indigenous elite. Indigenous elites would then not receive local administrative control if their preferences differed substantially from

Table S.2: Towns in Parliament: Robustness of Results

Dependent variables: Indicator for Town Summoned to Parliament by 1348

	(1)	(2)	(3)	(4)	(5)
Self-Governing Town	0.558***	0.594***	0.506***		0.504***
	(0.069)	(0.079)	(0.102)		(0.078)
ln(Taxable wealth in 1086)			0.013		
			(0.037)		
Trade Geography				0.344***	0.151
				(0.088)	(0.098)
County FE		✓			
Mean Dep. Var.	0.51	0.50	0.47	0.50	0.50
R^2	0.31	0.56	0.27	0.09	0.31
Observations	145	141	83	141	141

Note: This table complements Panels C and D in Figure 8 in the paper. Note that all specifications here include a constant term, so that the coefficients reflect the differences with respect to the constant (e.g., in column 1, the difference to towns without self-governance). The table shows that the results on towns' representation in the English Parliament are robust to including county fixed effects (for 40 medieval shires) and to controlling for taxable wealth as assessed in the Domesday Book of 1086 (this variable is available for a subset of 83 royal towns). Columns 4 and 5 provide evidence that trade towns were summoned to Parliament because they had obtained self-governance. All regressions are run at the town level. Robust standard errors in parentheses. Key: *** significant at 1%; ** 5%; * 10%.

(*encomenderos*), with merchants playing a minor role (Garfias and Sellars, 2021). The *cabildo* was annually renewed through co-optation, with provincial governors influencing these appointments. Similarly, provincial officials, consistently drawn from regional landed and mining elites, held jurisdiction over towns, including trade matters (Morales, 1979; Alvarez, 1991; Domínguez-Guerrero and López Villalba, 2018). In the terminology of our framework, this early phase was characterized by low economic potential of the urban merchant elite (k_T) relative to that of the landed (and mining) elite (k_L). As a consequence, local administrative power was concentrated in the hands of the latter (i.e., *Integration*). Consistent with our model, provincial officials directly communicated with the central government (the council in Madrid or the viceroy), while communication between the central government and municipal bodies was primarily mediated by provincial governors (i.e., $C_T = 0$) to reduce costs (Mazín, 2013; Alarcón Olivos, 2017; Amadori, 2023).

By the late 16th century, the Spanish crown's profits from colonial trade had grown significantly compared to those from mining and agricultural production (Hernández, 2020, pp. 72-3, 105) – i.e., k_T grew relative to k_L. Moreover, during the first half of the 17th century, the

those of the Spanish crown.

Spanish crown encountered threats to its American dominions from rival European powers. In response, the crown sought to increase contributions from its colonial subjects to finance the defense of the American possessions, exemplified by initiatives like the *Union de Armas*. In this context, the alignment of interests between the ruler and merchant elites was strong enough for the latter to secure entry into the municipal *cabildos*. Simultaneously, these councils gained more self-governance from the crown, securing increased jurisdictional power compared to provincial-level officials (Escamilla, 2008) – i.e., merchant towns achieved *Separation*.[18] Consistent with our model, the crown established direct channels of communication with self-governing municipalities to coordinate the financing of common policies, bypassing the mediation of provincial-level officials (Calvo and Gaudin, 2023; Mauro, 2021) – that is $C_T = 1$. In the first half of the 17th century, the consultations with colonial towns resulted in the implementation of trade taxes (e.g., *alcabala*) effectively administered by the municipalities – a practice referred to as *encabezamiento* (Arias, 2013). Notably, to prevent collective action by colonial towns, the Spanish monarchs prohibited them from assembling and communicating as a group (Lohmann Villena, 1947; Ciaramitaro and Nardi, 2019). Instead, they established a framework of bilateral direct communication to manage colonial affairs.[19] Overall, urban elites exerted substantial influence on policy-making (Lynch, 1992; Grafe and Irigoin, 2012).

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[18]See Morales (1979) and Barriera (2012) for the cases of Mexico City and Buenos Aires.

[19]Section 4 offers a brief discussion on how our model could rationalize why a ruler might favor a system of bilateral direct communication with each locality over direct communication in a general assembly (see the paragraph 'Information about local states').

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