Organizing a Kingdom*

Charles Angelucci (MIT Sloan)
Simone Meraglia (Exeter)
Nico Voigtländer (UCLA, NBER, and CEPR)

1 March 2025

Abstract

We develop a framework to examine the organizational challenges faced by central rulers whose large territories require delegating administrative power to distant rural or urban elites. These elites have distinct policy preferences and vary in their economic importance. The ruler's organizational choices balance a trade-off: allowing elites to adapt to local and common shocks while maintaining coordination across the realm. We show that as urban economic potential grows, the ruler transfers administrative control over towns from landed to urban elites, particularly when all players' preferences are aligned. When towns are administratively autonomous, the ruler summons them to central assemblies to ensure effective communication and coordination. This mechanism can explain how, during the Commercial Revolution, European merchant elites gained nationwide political clout in parliament by first obtaining control over urban administrations. We provide empirical evidence for our core mechanisms and discuss how the model applies to other historical dynamics (ancient Rome and Spanish America), as well as to contemporary organizational problems.

Keywords: Local and national institutions, administration, self-governance, parliament.

JEL Codes: D02, D72, D73, N43, N93, O43

*We would like to thank David Austen-Smith, Alberto Bisin, Alessandro Bonatti, Micael Castanheira, Wouter Dessein, James Fenske, Edward Glaeser, Garance Genicot, Robert Gibbons, Avner Greif, Leander Heldring, Alessandro Lizzeri, Chiara Margaria, Omar Moav, Massimo Morelli, Juan Ortner, Nicola Persico, Heikki Rantakari, Michael Ting, Francesco Trebbi, Felipe Valencia Caicedo, Michael Whinston, Leeat Yariv, as well as seminar audiences at Berkeley, Bocconi, Bologna, Bristol, Columbia, Di Tella, Exeter, Harvard, King's College London, MIT Sloan, Monash, San Diego, Stanford, Trinity, Warwick, FRESH 2024, ESAM 2023, the 2023 Utah Winter Organizational and Political Economics Conference, ThReD 2023, and the 2023 IBEO Political Economy Workshop for helpful comments and suggestions. Roi Orzach provided outstanding research assistance. Corresponding author: Nico Voigtländer (nico.v@ucla.edu).

1 Introduction

Ever since the formation of centrally organized polities, competing groups have vied for influence over their economic and political institutions. This contest for power spans from the dominance of military and landed elites in ancient and medieval times, to the rise of merchant elites in the early modern period, and later on, the prominence of financiers and industrialists. A substantial body of research has shed light on the way elites shape institutions (North, Wallis, and Weingast, 2009), and on specific mechanisms through which different groups can gain power, e.g., in response to threats of revolt (Acemoglu and Robinson, 2001), or to address the need to fund public goods (Lizzeri and Persico, 2004).

In this paper, we expand on this literature by examining the challenges faced by a central ruler through an organizational lens. This approach provides a novel rationale to explain how different elites can gain influence over institutions at both local and central levels. We show that as a local elite gains economic importance, the central ruler chooses to delegate administrative control over localities to them – at the expense of competing local elites – provided that their preferences on common policies are sufficiently aligned. Moreover, when a local elite gains administrative control over a locality, the ruler establishes a direct communication channel with them in order to coordinate decision-making. In our model, this takes the form of including the local elite in central assemblies, thus lifting them into the circle of power-holders. These dynamics highlight a novel interaction between local and nationwide institutions.

Our framework captures the institutional evolution of Western Europe during the Commercial Revolution in the 11th-13th century. Limited state capacity forced rulers to delegate administrative control to local elites, who often pursued their own interests (Greif, 2008). The surge in trade potential led central rulers to transfer administrative control over merchant towns from rural to urban elites, effectively separating town jurisdictions from the surrounding countryside (Downing, 1989; Van Zanden, Buringh, and Bosker, 2012). Concomitantly, monarchs reshaped the composition of central assemblies by including representatives from self-governing towns (Angelucci, Meraglia, and Voigtländer, 2022). This process marked the birth of parliaments, a blueprint for Western Europe's institutional framework that promoted state-formation and economic growth for centuries to come (Acemoglu, Johnson, and Robinson, 2005).

We focus on two key organizational challenges that central rulers faced in governing large territories: adaptation to local conditions and coordination throughout the realm. In our model, a ruler interacts with a rural (landed) elite and an urban (merchant) elite. Each elite makes economic decisions that need to be adapted to a common state (e.g., external war threats), but also to their own local states (e.g., weather shocks in rural areas or trade opportunities for towns). In addition, the elites benefit from coordinating their decisions with each other. For example, merchants and nearby rural producers may agree on which commodities to specialize in – if sheep herding is important, merchants may want to trade wool. Local administrations can affect these economic decisions through regulations. The ruler must decide whether to delegate control of the urban administration to the landed elite or the urban elite. In making this choice, she takes into account both the economic potential of rural and urban areas, and the weight that the corresponding elites assign to the common state. We assume that the ruler has the strongest interest in the common state, and that the landed elite is naturally more aligned with the ruler's preferences than the urban elite.[1] The first option is for the landed elite to govern both areas (*Integration*), anticipating they will use control to serve their own interests. For example, the landed elite may impose market regulations to favor local wool trade, even if merchants could profit more from trading silk. The second option is for the ruler to separate jurisdictions, letting each elite govern their own areas (*Separation*). This improves adaptation to local shocks in the urban area, but it reduces coordination across elites.

In addition to deciding on delegation, the ruler must establish effective communication with local elites to coordinate collective action and address external threats. The ruler possesses superior information about the common state, which she communicates through a central assembly by presenting *hard* evidence. In our model, the landed elite always attends the central assembly, while the ruler must decide how to share this information with the urban elite. *Direct* communication with the urban elite in the assembly is costly, requiring the organization of representation and travel to a central location, but it allows the ruler to maintain control over information transmission. An alternative option for the ruler is to exploit a system of *indirect* (sequential) communication, relying on the landed elite to relay *soft* information to the urban elite, such as through local assemblies. While this option is less costly, it poses the risk that the landed elite may manipulate information for their own advantage and hurt overall coordination within the polity.

Our model predicts that growing economic potential of towns can prompt a reorganization of local administrations and communication between center and localities, depending on all players' preference alignment. Specifically, when towns have a relatively low economic potential, the ruler delegates control of both rural and urban administrations to the landed elite, for any feasible configuration of preferences regarding the common state. This occurs because *Integration* ensures that i) policies maximize the ruler's payoff from the most economically significant area, and ii) decision-making better aligns with the ruler's preferred policies for the common state, given that the landed elite's preferences are closer to hers. As the economic potential of towns increases, the inefficient regulation under *Integration* creates rising costs for the urban area mostly due to the misadaptation to local conditions. For example, towns may miss out on profits from oriental

[1] Historically, the first assumption stems from the fact that central rulers owned land scattered throughout the realm. The second follows from the observation that rulers and landed elites often shared military backgrounds and economic interests, as both were typically large landowners.

spice trade if governed by landed elites favoring rural products. Eventually, the ruler may find it profitable to let the urban elite run the town administration independently (*Separation*). This shift in governance most prominently occurs when *all* players share similar preferences. In this case, *Separation* does not compromise coordination on the common state. By contrast, if the ruler places high weight on the common state relative to both elites, she entrusts administrative control over towns to the landed elite (*Integration*) regardless of towns' economic potential. This reasoning can explain why distant European rulers often concentrated a significant amount of administrative power in their colonies among few elites whose interests were closest to their own (Chiovelli, Fergusson, Martinez, Torres, and Valencia Caicedo, 2023).

Next, we show that a reorganization of the local administrative structure prompts a change in the communication structure between ruler and urban elite. When the ruler delegates control of both rural and urban administrations to the landed elite (*Integration*), she chooses a system of *indirect* communication whereby the landed elite informs the urban elite about the common state. This system is effective because the landed elite regulates the town and has an incentive to relay information accurately: truthful reporting strengthens their control over the urban elite. However, when the ruler delegates control of the urban administrations to the urban elite (*Separation*), *indirect* communication ceases to be reliable. Having lost its administrative control over the town, the landed elite can no longer be trusted to convey accurate information and may, for instance, exaggerate war threats to discourage international trade. To restore effective communication, the ruler establishes a system of *direct* communication with the urban elite by summoning them to the central assembly. As a result of this dual institutional process, the landed elite is forced to accommodate the urban elite's preferences when choosing its own action. In summary, increased urban economic potential leads to administrative autonomy, direct communication with the ruler, and greater influence on policymaking.

In a first extension of our model, we modify the setting so that under *Integration*, the landed elite can only imperfectly influence the urban elite's economic decisions through town regulations. In this case, *indirect* communication no longer guarantees perfect information transmission. We show that compared to this weaker form of *Integration*, *Separation* again strengthens the ruler's incentives to engage in *direct* communication with the urban elite, provided the urban elite places sufficient weight on the common state.

In a second extension, the ruler coordinates an action with the elites but lacks knowledge of local urban conditions. This analysis captures an additional key role of assemblies: facilitating information flow not only from the center to the localities but also in the reverse direction. Our key mechanisms continue to hold: As towns' economic potential grows, they gain administrative autonomy from the landed elite, making *direct* communication with the ruler crucial for her to obtain accurate information about local shocks to towns.

We highlight the relevance of our framework by applying it to diverse historical contexts where rulers faced the challenge of organizing polities that varied in size and heterogeneity of preferences. Our model rationalizes the empirical patterns documented for medieval England by Angelucci et al. (2022), who show that towns located on trade routes (reflecting higher economic potential) were significantly more likely to attain self-governance. This administrative autonomy, in turn, boosted their odds of being summoned to Parliament. We show that, in line with our model, this mechanism was particularly strong for towns that were more closely aligned with the ruler's preferences. We then discuss our mechanism in the broader context of early modern Western Europe, and we show that our model can also rationalize institutional dynamics in colonial Spanish America and ancient Rome. In the concluding remarks, we discuss insights for the governance structures of contemporary corporations that emerge from novel features of our model.

Related Literature. Our model shows how organizational features – the delegation of decision rights, the choice of communication modes, and their interaction – can shed new light on institutional change. In what follows, we discuss the related literature and highlight our contribution.

We contribute to a nascent literature that introduces insights from organizational economics in the literature on political economy and institutions (see, for instance, Foarta and Ting, 2023; Snowberg and Ting, 2023). We build upon the models of coordinated-adaptation developed by Dessein and Santos (2006), Alonso, Dessein, and Matouschek (2008) and Rantakari (2008), who study the optimal allocation of decision authority and design of communication structures within multi-divisional firms. Our analysis goes beyond previous models by considering a scenario where (i) the ruler is not a social planner but instead acts in her self-interest – an assumption that reflects the historical context and allows for a richer role played by preferences; (ii) the ruler has private information about the common state; (iii) the ruler can employ alternative modes of communication to share her private information, including sequential ones in which one elite acts as an intermediary; and (iv) local elites make inalienable decisions, meaning that coordination with all is always needed regardless of who controls local administrations. In Section 6, we come full circle by discussing the relevance of our framework to the study of modern organizations.

Our paper relates to several strands of literature in political economy. We contribute to the body of work that looks at the rise of the urban merchant class and the associated Western institutional dynamics. In the context of a city-state, Puga and Trefler (2014) document how international trade led to the ascent to political power of the Venetian merchant class. We study a similar question, but in the context of a large kingdom in which delegation of administrative power and communication between the center and the localities are key. Our emphasis on elites' local administrative power also connects our work with Barzel (1989), González de Lara, Greif, and Jha (2008), and Greif (2008). Mayshar, Moav, and Neeman (2017) examine the relationship between the center and local elites in the periphery, showing that local elites are empowered by the center's imperfect information about the state of the local agriculture. We contribute by formalizing the interplay between local administrations and 'nationwide' institutions such as parliaments. Further, we complement Acemoglu et al. (2005), who find that the extent of merchants' political power before 1500 mattered in the context of the rise of Atlantic Trade. Our model offers a mechanism whereby merchant elites gain nationwide political clout by first controlling local administrations.

We also contribute to the literature on the role of assemblies in governing polities. In Levi (1988) and North and Weingast (1989), assemblies discipline rulers. In Myerson (2008), assemblies increase rulers' credibility by exposing them to collective punishments in case of opportunistic behavior.[2] In our setting information sharing in an assembly acts as a mechanism to have local administrations adapt to and coordinate on common goals. Our argument is in line with Epstein (2000), who states that parliaments were created by monarchs to coordinate autonomous jurisdictions.[3] Our approach emphasizes the interdependence between administrative control over localities and membership in central assemblies.

We contribute to the literature on state capacity (Besley and Persson, 2009, 2010; Johnson and Koyama, 2014; Gennaioli and Voth, 2015), particularly the recent and growing empirical body of work that 'opens the black box' of the state by conceptualizing it as an organization (e.g., Chiovelli et al., 2023; Mastrorocco and Teso, 2023). Chiovelli et al. (2023), in the context of colonial Spanish America, show that, in response to a sudden rise in fiscal demands, Madrid undertook significant administrative reforms by consolidating power in the hands of *Intendants* – an elite whose preferences closely matched its own – at the expense of the local Creole elites, whose interests diverged from those of Madrid. In our model, these dynamics reflect an increased emphasis by the ruler on the common state, prompting an administrative shift from *Separation* – where Creoles held significant autonomy – toward *Integration*. This reorganization resulted in policies that benefited the center while undermining the interests of the Creoles. Similarly, studying the organization of the U.S. federal government in the 19th century, Mastrorocco and Teso (2023) find that improvements in communication technologies enabled greater delegation of administrative power to lower levels of the bureaucracy. While our model applies to an earlier period that precedes formal bureaucratic apparatuses, it can help to explain this dynamic: Our analysis suggests that as communication costs decrease, decentralizing administrative authority while establishing more direct communication channels can increase efficiency.

Finally, our paper is related to the literature on federalism (Tiebout, 1956; Oates, 1972), in

[2] For a related reasoning, see Fearon (2011).

[3] In this context, our work is further related to a literature that examines the functioning of assemblies and legislatures. In Weingast and Marshall (1988), assemblies enable representatives to bargain over policies. In our model, even though representatives do not hold agenda-setting authority, they accommodate each other to achieve some degree of coordination. We are especially related to the strand of this literature that highlights the importance of information acquisition in legislative committees (see Gilligan and Krehbiel, 1987, 1989, 1990; Baron, 2000; Dewan, Galeotti, Ghiglino, and Squintani, 2015).

particular the strand that studies the decentralization of government functions (Treisman, 1999; Bardhan and Mookherjee, 2000, 2006). In our setting, centralization is not feasible, and the ruler must rely on local elites. Our work is also connected to the literature on the size of nations (see Alesina and Spolaore, 1997, 2003, for early contributions), even though we take boundaries as given.

The rest of the paper is structured as follows. Section 2 describes the model, followed by its analysis in Section 3 and a discussion of our modeling choices in Section 4. In Section 5, we provide historical evidence for our mechanisms in medieval and early modern Western Europe, as well as in ancient Rome and Spanish America. Section 6 concludes and discusses how our model applies to modern organizations.

2 Model

Players and Actions. Our model consists of three players: a principal P and two agents A_i, where $i = \{L, T\}$. Given our primary focus on the medieval European context, we refer to the principal as the ruler (i.e., the monarch), and to the two agents as the landed (A_L) and town (A_T) elites. Each elite A_i inhabits the corresponding administrative unit D_i, with D_L representing the rural area of a county that is distant from the ruler's location, and D_T, a town in this county. Each elite chooses an action a_i, reflecting their own economic activity: For instance, the type of agricultural goods produced for the landed elite and type of goods to trade for the town elite. Moreover, to each administrative unit D_i corresponds a regulatory decision r_i, which we interpret as the administration of the unit. For example, r_T reflects market regulations in towns or adjudication of disputes between merchants.

We assume that A_L always makes the regulatory decision r_L. However, P allocates the right to choose the regulatory decision r_T to either A_L or A_T. In other words, the landed elite maintains control over the rural administration, while the key question is whether this elite also governs the town or whether the town has its own separate administration governed by the town elite.[4] By contrast, the local economic action a_i is inalienable. For example, town merchants (A_T) choose which commodities to trade (a_T), and this choice cannot be directly made by landed elites (A_L). However, if landed elites are in control of town administration r_T, they can use this to influence A_T's choice of a_T.

[4]Our modeling assumptions exclude the possibility of P allocating control over both rural and urban administrations to A_T. This choice simplifies the exposition of our results and reflects historical realities in western Europe, where landed interests largely dominated local administrations throughout most of the Middle Ages. Nevertheless, as we show below, our model provides intuitive conditions under which a town-dominated governance structure could emerge as optimal for the ruler if it were permitted (see Proposition 1 in Section 3.1). In addition, we note that we also ignore the governance structure in which the ruler 'cross-delegates' control over regulatory decisions in the urban area to the rural elite and in the rural area to the urban elite. Our focus centers on a period characterized by administrations led by elites whose authority is based on the control of their own territories, which they leverage to govern immediately-surrounding areas.

Note that our model does not allow P to directly choose the regulatory decisions in the local units. Historically, territories were typically too large for medieval and early modern rulers to directly govern all areas of the realm. However, we do assume that the ruler can choose *which* local elite is responsible for making administrative decisions in the town, as documented by the rich historical records of royal grants delegating administrative power (see references in Angelucci et al., 2022).

Information Structure. Players care about the realization of three independently distributed states of nature: θ_P, θ_L, and θ_T, with $\theta_P \sim U\left[-\overline{\theta}, \overline{\theta}\right]$ and $\theta_i \sim U\left[-\underline{\theta}, \underline{\theta}\right]$, for $i = \{L, T\}$. The variable θ_P captures the common state of the realm, such as the presence or nature of external threats, which affects each player's preferred actions. Similarly, the variables θ_L and θ_T indicate local economic shocks to rural and urban economies, respectively, which also impact players' preferred actions.

In our core model, P is privately informed about the realization of θ_P, while the realizations of θ_L and θ_T are publicly observable, i.e., known to P, A_L, and A_T. This is the simplest case of the organization-communication problem that we analyze. It implies that information flows only top-down, with the ruler informing local elites about θ_P. For example, rulers often possessed insider knowledge about war threats due to the intricate networks of the European nobility. In an extension, we also analyze the case where θ_T is known to both elites but not to P, and communication occurs bottom-up (Online Appendix E). Thus, in both the core model and the extension, we maintain the assumption that local elites are aware of each other's local states, primarily because of their close geographical proximity (i.e., their location in the same county). For example, in 13th century England, county officials in charge of tax collection were local landholders and thus "had personal knowledge of men and conditions [in the localities]" (Mitchell, 1951, pp. 69-70). Finally, we assume $\underline{\theta} < \overline{\theta}$ (**A1**), which simplifies our analysis of communication.

Communication. We assume that P always communicates with A_L. In addition, P must choose how to communicate with A_T. One option is for P to establish a *direct* communication channel with A_T as well, albeit at a cost. In the historical context, this reflects summoning town elites to parliament, which was costly not only because it required extensive travel, but also because it took time, delaying decision making (see, for instance, Stasavage, 2011; Mazín, 2013). The alternative option is to use A_L as an intermediary, and thus communicate with A_T only indirectly.

P truthfully discloses θ_P to the elites she communicates with directly (i.e., she reports *hard* evidence). Parliament was key for the ruler to present evidence on the common state θ_P to representatives of the localities, who were assembled "to hear and to do" what was revealed to them by monarch and royal officials (Mitchell, 1951, p. 226). For example, in 1346, a detailed French plan for the invasion of England fell into English hands and was read in parliament (Harriss, 1975, p. 316).[5] This motivates our simplifying assumption that vertical (top-down) communication con-

[5] Often, prominent figures like high-ranking officials (for instance, those returning from military campaigns) were

veys verifiable information about θ_P, allowing us to focus on analyzing strategic communication between local elites instead.

If P chooses not to communicate directly with A_T, she can rely on A_L to send a costless message $m_L \in \left[-\overline{\theta}, \overline{\theta}\right]$ about θ_P to A_T. We assume that horizontal communication between the two elites is *soft* and thus subject to cheap talk.[6] We refer to an outcome in which A_T receives information about θ_P through A_L as *indirect* communication between P and A_T.

Governance Structure. P chooses the administrative and communication structure of the realm: $\mathbf{g} = \{R_T, C_T\}$, where $R_T \in \{L, T\}$ denotes the identity of the elite (either A_L or A_T) to whom P delegates decision rights over town regulation r_T. Further, $C_T \in \{0, 1\}$ denotes communication: it takes value 1 if P opens a *direct* communication channel with A_T. As an illustration, consider $\mathbf{g} = \{L, 0\}$. In this configuration, A_L controls regulation in the town (r_T), and P does not communicate directly with A_T, relying instead on information transmission through A_L. A historical example is a medieval English sheriff (who was typically part of the landed elite) being in charge of $i)$ the administration of the county (shire), including towns, and $ii)$ communication between center and localities via meetings of the county courts.

We define as *Integration* the allocation of decision rights in which A_L controls regulatory decisions in both units. We define as *Separation* the allocation of decision rights such that A_i controls r_i, for $i \in \{L, T\}$ – that is, each elite chooses the regulatory decision within their own unit. The corresponding historical example is merchant towns obtaining royal grants of self-governance, effectively separating their jurisdiction from the surrounding county and putting the merchant elites in charge of local urban regulations (see Angelucci et al., 2022, and references therein).

Payoffs. The ex-post payoff of elite A_i is given by the following loss function:

$$U_i(\gamma_i) = -k_i \Bigg\{ \frac{1}{2} \underbrace{\left[\gamma_i \theta_P + (1-\gamma_i)\theta_i - a_i\right]^2}_{\text{Adaptation to } A_i\text{'s ideal point}} + \frac{1}{2}\left[\frac{1}{2} \underbrace{(r_i - a_i)^2}_{\text{Internal Coord.}} + \frac{1}{2} \underbrace{(a_j - a_i)^2}_{\text{External Coord.}} \right] \Bigg\}, \tag{1}$$

where $k_i \geq 0$ is a measure of unit D_i's economic potential. Building on Alonso et al. (2008) and Rantakari (2008), A_i's expected loss depends $i)$ on the degree of *adaptation*, and $ii)$ on both

called upon to provide testimony regarding important issues (Harriss, 1975, p. 344).

[6] We assume that P cannot stop elites from communicating with each other. This captures the fact that local elites could easily communicate due to their close proximity. Moreover, one might question why P does not share her hard information with A_L, who could then disclose it to A_T, bypassing the need for cheap talk. This assumption is justified when considering that, in practice, agents came from many regions scattered across the country to attend parliament, and duplicating hard evidence was not straightforward.

internal (intra-units) and *external* (inter-units) *coordination*.[7] In particular, the *adaptation* term captures A_i's loss when they are unable to match their economic action to their 'ideal point' $(1-\gamma_i)\,\theta_i + \gamma_i\theta_P$ – a weighted mix of the local state θ_i and the common state θ_P, where the parameter $\gamma_i \in [0,1]$ denotes the weight that A_i attaches to the common state relative to the local state. This parameter differs across players, as it reflects the extent to which they are affected by shocks to the realm. To illustrate how the local and common shocks affect A_i's ideal point, consider the example of the urban elite A_T. Suppose A_T chooses how to allocate resources between trading two goods, such as wool and silk, in varying proportions a_T, (with negative values indicating more wool trade). Here, shocks $\theta_P = \theta_T = 0$ call for a 'balanced' allocation of resources ($a_T = 0$). When θ_P takes a negative value, for instance, this signals that the realm's current state favors a shift toward trading more wool; therefore, A_T would find it profitable to adjust a_T downwards to increase wool trade; a negative θ_T has a similar effect. On the other hand, a positive θ_P or θ_T represent conditions that make silk trading more advantageous, leading A_T to increase a_T. Thus, A_T's ideal action depends on the combined realizations of θ_P and θ_T and how much weight γ_T is given to each.

Next, *internal coordination* reflects the loss that results if the local economic action a_i is not aligned with the local regulation r_i. For example, if market regulation in town (r_T) imposes high taxes on silk, then choosing an allocation of resources (a_T) that fosters silk trade will imply a larger loss than trading goods with low tax rates (e.g., wool).[8]

Finally, *external coordination* represents the need to coordinate economic activities a_i and a_j across units. For example, if the countryside produces wool, then both elites can benefit if the town merchants trade local wool.

[7]For simplicity, we assume that the weights given to these various loss terms are equal to each other and identical across players. This approach allows us to focus on the variables of interest – i.e., the economic potential of the two units (k_L and k_T) and players' preferences for the common state (γ_P, γ_L and γ_T) – in determining the equilibrium governance structure. Our main result regarding the interaction between the allocation of the decision right over the town's regulatory action (r_T) and P's choice whether to directly communicate with A_T does not depend on this particular parameterization . By contrast, R's choice between *Integration* and *Separation* may depend on the weights given to the various loss terms, but our results hold for an open set of parameter values and fail to hold only if one considers extreme values of these parameters. For example, if the weight given to internal coordination goes to 1 (e.g., because the ruler cares mostly about preventing urban discontent), then *Separation* always prevails. Computations are available upon request.

[8]Losses from internal miscoordination also capture the social cost of having a community run by outsiders. For example, towns in medieval times frequently complained about the behavior of outside officials (see Cam, 1963; Carpenter, 1976, for the case of medieval England).

P's ex-post payoff is:

$$U_P(\gamma_P) = -\sum_{i\in\{L,T\}} k_i \Bigg\{ \frac{1}{2} \underbrace{\left[\gamma_P\theta_P + (1-\gamma_P)\,\theta_i - a_i\right]^2}_{\text{Adaptation to } P\text{'s ideal point}} + \frac{1}{2}\left[\frac{1}{2}\underbrace{(r_i - a_i)^2}_{\text{Internal Coord.}} + \frac{1}{2}\underbrace{(a_j - a_i)^2}_{\text{External Coord.}}\right]\Bigg\} - F(C_T), \tag{2}$$

where $\gamma_P \in [0,1]$ denotes the weight that P attaches to the common state. Given agents' decisions r_i and a_i, P internalizes the loss generated by *both* units weighting each by their economic potential, k_i. $F(\cdot)$ denotes the fixed cost of setting up a direct communication channel with A_T, with $F(1) = f > F(0) = 0$. For simplicity, the cost of *direct* communication is borne entirely by P.

Regarding the weights that different players assign to the common state, we make the following assumption:

$$\textbf{A2:} \quad \gamma_P \geq \gamma_L \geq \gamma_T.$$

A2 states that, relative to elites' preferences, P is weakly biased in favor of the common state. This reflects the intuitive idea that rulers assign a greater weight on the common state compared to local actors. **A2** also implies that the landed elite's preferences for the common state align more closely with those of the ruler, as compared to the town elites' preferences. This is motivated by the fact that landed elites were medieval rulers' military force and would thus benefit (or suffer) from wars more immediately than merchants (Harriss, 1975, p. 98).[9] We note that the weights $\{\gamma_P, \gamma_L, \gamma_T\}$ provide a measure of the degree of homogeneity in players' preferences. Specifically, for any pairwise comparison of players, as the two $\gamma-$parameters converge, their ideal points become more similar.

Timing. Players interact for one period. The timing of the game is as follows:

1. P chooses the governance structure $\mathbf{g} = \{R_T, C_T\}$;
2. P learns θ_P. All players learn $\{\theta_L, \theta_T\}$;
3. P discloses θ_P to A_L, and also to A_T if $C_T = 1$;
4. If $C_T = 0$, A_L sends a message m_L to A_T;
5. A_T and A_L simultaneously choose $\{r_i, a_i\}_{i\in\{L,T\}}$ in accordance with $\mathbf{g}$;
6. Payoffs realize.

[9]Of course, merchants could also be influenced by wars, for example if international trade routes were affected. The more important such ramifications were, the closer is γ_T to γ_L.

Our solution concept is Perfect Bayesian Equilibrium. Within this set of equilibria, in the case of *Integration*, we focus on the equilibrium that maximizes the expected payoff of the player who controls both regulatory decisions.[10] Further, in the cheap-talk game, we focus on the most informative equilibria.

3 Analysis

To highlight the basic trade-offs between *Integration* and *Separation*, we first analyze the case of complete information in which the common state θ_P is publicly observable. Thus, P allocates regulatory control over the town to either A_T or A_L, but she does not need to choose whether to communicate with A_T – that is, $\mathbf{g} = R_T$. This allows us to understand the role played by players' preferences (γ_P, γ_L, and γ_T) and units' relative economic potential (k_T/k_L) in determining P's preferred allocation of regulatory control over the town. We then solve the model of incomplete information and study how the allocation of decision rights over town regulations interacts with the structure of communication between P and A_T. In what follows, we normalize $k_L = 1$ and focus on the comparative statics on k_T.

3.1 The Game of Complete Information

Suppose θ_P is observable to *all* players. We analyze the two possible governance structures, *Integration* and *Separation*, and derive the equilibrium regulatory decisions and economic actions. We then compare P's expected payoffs under these two structures.

Integration. Suppose P allocates control over both regulatory decisions r_T and r_L to A_L. Formally, P sets $R_T = L$. Given (1), and ignoring for the moment the choice of r_T, the three first-order conditions (FOCs) corresponding to the elites' optimization problems are:

$$r_L = a_L, \tag{3}$$

$$a_L = \frac{2}{3}\underbrace{\left[\gamma_L\theta_P + (1-\gamma_L)\,\theta_L\right]}_{A_L\text{'s ideal point}} + \frac{1}{3}\mathbb{E}_L\left(a_T\right), \tag{4}$$

$$a_T = \frac{1}{2}\underbrace{\left[\gamma_T\theta_P + (1-\gamma_T)\,\theta_T\right]}_{A_T\text{'s ideal point}} + \frac{1}{4}\mathbb{E}_T\left(a_L\right) + \frac{1}{4}\mathbb{E}_T\left(r_T\right). \tag{5}$$

Equation (3) states that A_L sets their own unit's regulatory decision equal to their own economic action to ensure perfect internal coordination. Equations (4) and (5) state that each elite sets their economic action to target a convex combination of three elements: i) their ideal point; ii) their conjecture about the other elite's economic action; and iii), for A_T, their conjecture about the regulatory decision r_T chosen by A_L. In addition, A_L chooses unit D_T's regulatory decision r_T.

[10] One microfoundation of this equilibrium under *Integration* is an alternative sequential timing whereby regulatory decisions are taken before elites choose their economic actions.

To solve for all four decisions, we proceed in two steps. First, we solve for the optimal choices of actions a_L and a_T by taking r_T as given. Second, we minimize A_L's expected loss in (1) with respect to r_T, plugging in the solutions for a_L and a_T. It follows that, in equilibrium, elites set:

$$r_L = a_L = a_T = (1 - \gamma_L)\, \theta_L + \gamma_L \theta_P, \tag{6}$$

$$r_T = 3\,(1 - \gamma_L)\, \theta_L - 2\,(1 - \gamma_T)\, \theta_T + [3\gamma_L - 2\gamma_T]\, \theta_P. \tag{7}$$

From (6) and (7), we see that A_L exploit their control over regulatory decisions in both units to achieve perfect *internal* and *external* coordination. Specifically, A_L designs r_T to induce A_T to choose an economic action a_T that matches A_L's ideal point. To achieve this goal, the regulation r_T puts positive weight on θ_L, a weight on θ_P that takes into account the difference in A_L and A_T's preferences towards the common state (γ_L and γ_T), and a negative weight on θ_T. By doing so, A_L obtains the highest possible payoff (i.e., zero loss: $U_L = 0$). Returning to our earlier example, the landed elite can influence the allocation of resources by both elites towards their preferred commodity (e.g., wool) by setting regulations that discourage the trading of the other commodity (e.g., silk). For instance, they could impose taxes, restrictions, or logistical barriers on silk trade.

An *integrated* structure implies perfect internal coordination within unit D_L and perfect external coordination between the two units around A_L's ideal point. *Integration* comes with a loss for A_T, as their optimal action a_T differs both from A_T's ideal point and from the regulation in their own unit. We report P's expected payoff under *Integration* in Appendix A, equation (A.3).

Separation. Suppose now that P lets each elite choose their unit's regulatory decision. Formally, P sets $R_T = T$. The FOCs associated with each elite's problem are:

$$r_i = a_i = \frac{2}{3}\,(1 - \gamma_i)\, \theta_i + \frac{2}{3}\gamma_i \theta_P + \frac{1}{3} r_j, \tag{8}$$

for $i, j = \{L, T\}$, and $i \neq j$. Thus, under *Separation*, both units achieve perfect internal coordination ($r_i = a_i$), that is, each elite chooses a local regulation that does not interfere with their own preferred allocation of resources. Solving for the corresponding system of linear equations leads to the equilibrium decisions:

$$r_i = a_i = \frac{3}{4}\,(1 - \gamma_i)\, \theta_i + \frac{1}{4}\,(1 - \gamma_j)\, \theta_j + \left[\frac{3}{4}\gamma_i + \frac{1}{4}\gamma_j\right] \theta_P. \tag{9}$$

These decisions reflect a process of adaptation (of each elite to their own ideal point) and accommodation (to the other elite's ideal point) where the latter ensures some degree of coordination across units (see Rantakari, 2008). We report P's expected payoff under *Separation* in Appendix A, equation (A.4).

Equilibrium Governance Structure. Comparing P's expected payoffs under the two different governance structures (see (A.3) and (A.4) in Appendix A), it is simple to show that P's expected payoff from D_L is higher under *Integration* than under *Separation*. This is because *Separation* reduces P's expected payoff from D_L due to decreased external coordination and lower adaptation to both the local state θ_L and, from P's perspective, the common state θ_P. Consequently, *Separation* can only be appealing to P if it increases her expected payoff from unit D_T, compensating the lower payoff from D_L. We analyze this trade-off in two steps: We first examine under which configuration of player preferences *Separation* leads to a higher expected payoff (to the ruler) from D_T. Whether this increased payoff is large enough to compensate the loss from D_L depends on the relative economic potential of the two units. We analyze this in the second step, introducing the role of k_T.

Focusing only on the town in our first step, the difference between P's expected payoff from D_T when moving from *Integration* to *Separation* (i.e., subtracting the town-related payoffs in (A.3) from those in (A.4)) is:

$$\underbrace{\frac{\theta^2}{3}}_{\text{Var Local State}} \times \underbrace{\left\{ (1-\gamma_P)^2 - \left[1-\gamma_P - \frac{3}{4}(1-\gamma_T)\right]^2 + \frac{45}{16}(1-\gamma_L)^2 + \frac{15}{8}(1-\gamma_T)^2 \right\}}_{\text{Local-State Component}} + \tag{10}$$

$$+ \underbrace{\frac{\overline{\theta}^2}{3}}_{\text{Var Common State}} \times \underbrace{\left\{ (\gamma_P-\gamma_L)^2 - \left(\gamma_P - \frac{1}{4}\gamma_L - \frac{3}{4}\gamma_T\right)^2 + \frac{15}{8}(\gamma_L-\gamma_T)^2 \right\}}_{\text{Common-State Component}} \lesseqgtr 0.$$

P may experience either an improvement or a reduction in her expected payoff from D_T when separating the town administration. Under *Separation*, all actions better target the local state θ_T, resulting in an unequivocal improvement of the component of P's payoff tied to D_T's local state ('local-state component'), which is the part in (10) that is multiplied by the variance of the local states θ_i. By contrast, the effect of *Separation* on the component of P's payoff tied to the common state ('common-state component') is a priori ambiguous. On the one hand, *Separation* eliminates any loss associated with uncertainty about θ_P that arises from the internal coordination channel within D_T. On the other hand, because A_T's preferences for the common state are (weakly) more distant from P's than A_L's preferences (see **A2**), from P's perspective, *Separation* (weakly) undermines P's expected payoff from the remaining channels – i.e., adaptation to and external coordination on θ_P. The 'common-state component' is the second part of (10), which is multiplied by the variance of θ_P.[11]

[11] The first two terms of the 'common-state component' in (10) capture the difference in P's payoff due to adaptation to the common state when moving from *Integration* to *Separation*. From **A2**, this difference is weakly negative, with equality holding when $\gamma_L = \gamma_T$. The last term of the 'common-state component' reflects the difference between the payoffs related to external coordination under *Separation* and internal coordination under *Integration*. This difference

In our first step we analyze these forces with a simple sign condition: Because *Separation* leads to an improvement in P's expected payoff through the 'local-state component,' it also increases P's overall expected payoff from D_T if the 'common-state component' is non-negative. Lemma 1 identifies two *sufficient* (but not *necessary*) conditions on players' preferences under which the 'common-state component' takes non-negative values.

Lemma 1. *There exist two individually sufficient (but not necessary) conditions for P's expected payoff from unit D_T to be (weakly) higher under Separation than under Integration. The first sufficient condition is:*

$$\gamma_L = \gamma_T \, . \tag{11}$$

The second sufficient condition is (for $\gamma_L > \gamma_T$):

$$\gamma_P \leq \frac{15\gamma_L - 7\gamma_T}{8} \equiv \underline{\gamma} \, . \tag{12}$$

Proof. See Appendix A. □

The lemma establishes that P expects a higher payoff from the urban area under *Separation* when: $a)$ elites exhibit perfectly homogeneous preferences over the common state, (condition (11) in the lemma), or $b)$ P does not assign exceedingly high importance γ_P to the common state (condition (12) in the lemma). The intuition for $a)$ is that, when elites' preferences are perfectly homogeneous (i.e., $\gamma_L = \gamma_T$), equilibrium decisions weigh the common state identically under both *Integration* and *Separation*. In this scenario, P expects a higher payoff from D_T under *Separation*, $\forall \gamma_P$, as this governance structure enables her to capture the benefits tied to the 'local-state component' of her payoff, while not incurring any losses through the 'common-state component' (which is zero in (10) if $\gamma_L = \gamma_T$). The intuition for $b)$ is that, when γ_P is low (while the elites' preferences are heterogeneous), the adaptation of the town to θ_P is less of a concern to the ruler.[12] Thus, the ruler becomes more inclined to delegate control of the urban economy to A_T, despite the fact that town preferences for the common state are less closely aligned with her own.[13] Conversely, when γ_P is high – violating (12) – P becomes more likely to delegate control of the urban economy to

is weakly positive, with equality also holding when $\gamma_L = \gamma_T$. Intuitively, under *Integration*, A_L can compel A_T to perfectly target A_L's preferred policy, which creates a relatively large internal coordination loss in D_T when $\gamma_L > \gamma_T$. In contrast, under *Separation*, A_L can only partially influence A_T's economic decisions toward A_L's preferred policy, resulting in a relatively moderate external coordination loss in D_T. Thus, *Separation* leads to a net increase in the part of P's payoff that is related to these terms.

[12] More precisely, among the elements of the 'common-state component,' the loss from reduced adaptation to and external coordination on θ_P under *Separation* weighs less to the ruler than the improved internal coordination of the town, ensuring that the 'common-state component' is non-negative.

[13] Note that if the two elites attach *very* different weights to the common state, $\underline{\gamma}$ can exceed 1, so that (12) always holds. Intuitively, having A_L impose r_T on a town with vastly different preferences would create so much internal coordination loss associated to θ_P that *Separation* becomes appealing to the ruler, no matter how much weight γ_P she puts on the town's adaption to the common state. This particular case is empirically less relevant in our analysis.

A_L to promote greater adaptation to and (external) coordination on the common state, which she then values highly. As we discuss in Section 5, this comparative statics result provides insights into the administrative reforms in 18th-century Spanish America, where colonial urban elites had previously enjoyed a degree of administrative autonomy. The need to finance wars against major European powers increased the Spanish crown's γ_P, which led it to effectively revoke this autonomy by transferring administrative control to agents whose preferences were more closely aligned with its own (Chiovelli et al., 2023).

Figure 1 illustrates the range of γ_L and γ_T values where conditions (11) and (12) are satisfied for our baseline value of $\gamma_P = 0.9$.[14] Given **A2**, the relevant area lies (weakly) below the $45°$ line. The $45°$ line itself is determined by condition (11), while the triangular blue area on the right side of the graph represents the region where condition (12) holds.

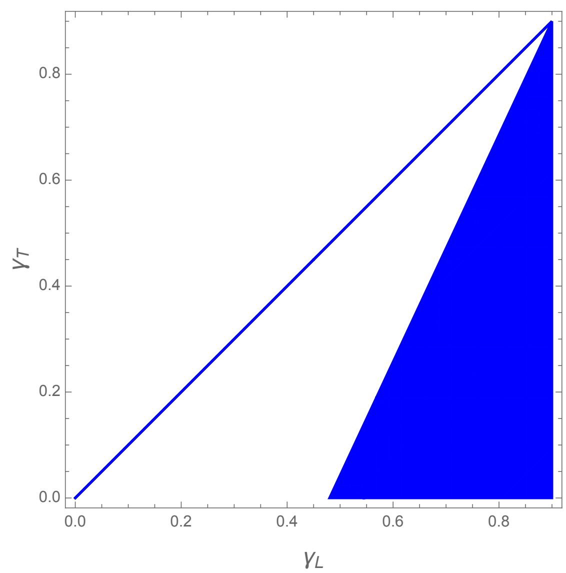


Figure 1: Illustration of Lemma 1

Note: The figure shows in blue – the $45°$ line and the blue triangle – the range of values for elites' preferences $\{\gamma_L, \gamma_T\}$, where $\gamma_L \geq \gamma_T$, that satisfy the conditions in Lemma 1, using our baseline value for $\gamma_P = 0.9$. The figure focuses exclusively on the urban unit D_T. See the text for further details.

To sum up, when condition (11) or (12) hold, moving from *Integration* to *Separation* implies that P obtains a higher expected payoff from the urban area D_T. However, the conditions in Lemma 1 are sufficient but not necessary: P might also expect a higher payoff from D_T under *Separation* when neither (11) nor (12) hold, i.e., when the 'common-state component' is negative. From (10), this is the case when the 'local-state component' is sufficiently large to outweigh the

[14]We set the baseline value of γ_P to ensure that there exists a non-empty set of γ_L and γ_T values for which P never chooses *Separation*, even as the town's economic potential rises (see footnote 15 for detail). This choice deliberately stacks the odds against our main results in Proposition 1 and Corollary 1.

'common state component' (both weighted by the respective variances). Specifically, this condition is met when the difference in payoffs given by (10) is (weakly) positive. The following proposition builds on this intuition and extends the analysis initiated in Lemma 1 by fully accounting for the magnitudes of both the 'local-state component' and the 'common-state component,' as well as the associated variances.

Proposition 1. *P's expected payoff from the urban area D_T is (weakly) higher under Separation than under Integration in the following two (not mutually exclusive) scenarios:*

a) The two elites have relatively similar preferences about the common state: for some $\delta \geq 0$, $(\gamma_L - \gamma_T) \leq \delta$;

b) The two elites have different preferences and the ruler puts a relatively low weight on the common state: for some $\eta \geq 0$, $\gamma_P \leq \underline{\gamma} + \eta$, with $\underline{\gamma}$ defined in Lemma 1.

Finally, all else equal, the thresholds δ and η are increasing in the variance of the local states and decreasing in the variance of the common state.

Proof. See Appendix A. □

The intuition for parts a) and b) in Proposition 1 is the same as described for the respective parts of Lemma 1, augmented by the role of the 'local-state component' (which always favors *Separation*) and the variances of the local and common states (whose role we discuss below). Proposition 1 expands the parameter space from Lemma 1 where *Separation* yields a higher expected payoff from the urban area for the ruler. This is illustrated in Figure 2, which fixes the values of γ_P, Var (θ_i), and Var (θ_P), and shows the range of γ_L and γ_T values (depicted in blue) where P's expected payoff from D_T is higher under *Separation* than under *Integration*. Throughout we use the value of $\underline{\theta} = \sqrt{3}$, so that Var $(\theta_i) = 1$. For the remaining parameters, Figure 2a uses the baseline value for $\gamma_P = 0.9$, as in Figure 1, together with a baseline value for $\overline{\theta} = 5\sqrt{3}$, resulting in a baseline variance of the common state equal to 25.[15]

Compared to Figure 1, incorporating the magnitudes of both the 'local-state component' and the 'common-state component,' each weighted by the variances of local and common states, widens the regions near the $45°$ line (part a in Proposition 1) and adjacent to the triangular blue region in Figure 1 (part b in Proposition 1). Figure 2b highlights the role played by the variances as stated in Proposition 1: Increasing the variance of the common state above its baseline value reduces the area where *Separation* yields a higher payoff from the town. Intuitively, if Var (θ_P) is large relative to Var (θ_i) the ruler's central aim is to have all decisions conform to the common

[15]The high baseline value for $Var\,(\theta_P)$ ensures that there exists a non-empty set of values for γ_L and γ_T where *Separation* yields a lower expected payoff for P from the urban unit D_T. As noted in footnote 14, this choice stacks the odds against our main result in Corollary 1.

state – as the common state holds paramount importance relative to the local states. This priority leads her to favor the landed elite (i.e., *Integration*), whose preferences are closer to her own.[16] Figures 2c and 2d show that the same reasoning applies for a different value of γ_P. Furthermore, consistent with part b of Proposition 1, the comparison between Figures 2a and 2c (and between Figures 2b and 2d) illustrates that the range where *Separation* yields a higher expected payoff becomes progressively larger as γ_P decreases.[17] In addition, note that in all four panels of Figure 2 the area in the top right corner is blue: This is where γ_L and γ_T are similar *and* high (i.e., close to γ_P). Thus, *Separation* of towns tends to be beneficial to the ruler when all players share similar preferences. We will test this prediction in our empirical section.

Having established the configuration of players' preferences under which *Separation* leads to a higher expected payoff for the ruler from the urban unit, our final step introduces also the payoff from the rural unit, together with the relative economic potential of the town, k_T. This is formalized in the following corollary to Proposition 1.

Corollary 1. *If condition $a)$ and/or condition $b)$ in Proposition 1 is satisfied, there exists a threshold $\underline{k}$ such that P chooses Integration when $k_T < \underline{k}$ and Separation when $k_T \geq \underline{k}$. If neither condition $a)$ nor condition $b)$ holds, P chooses Integration for all k_T.*

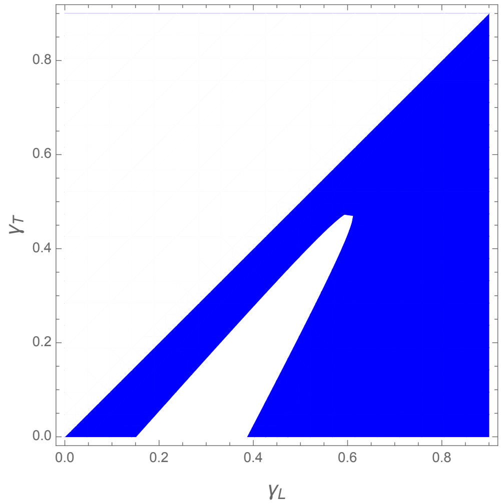
Given the variances of the local and common states, when the configuration of players' preferences allows the ruler to expect a higher payoff from the urban area under *Separation* than under *Integration*, her choice between these two governance structures depends on the economic potential of the town relative to that of the rural area. By transferring decision-making from the landed elite to the town elite, *Separation* favors the urban unit at the expense of the payoff that P expects from the rural area. This trade-off explains why the ruler grants *Separation* when, all else equal, k_T is sufficiently large.

In the context of our historical application, this result captures the wave of self-governance monarchs granted to merchant towns throughout Western Europe following the Commercial Revolution. Specifically, the Commercial Revolution led to an increase in the economic potential of trading towns (k_T), shifting the ruler's preference toward delegating the administration of urban areas to the merchant elite, whose interests catered more to the needs of the growing urban economy.

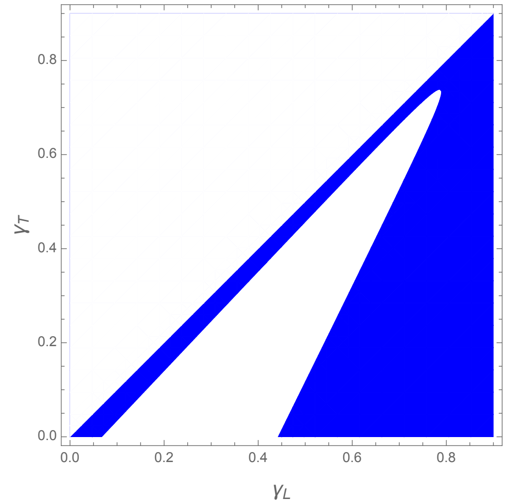
Figure 3 illustrates the trade-off between *Integration* and *Separation* by plotting the ruler's expected losses for a configuration of players' preferences under which a threshold $\underline{k}$ exists (case

[16] Conversely (not depicted in the figures), when the variance of the common state is held constant, increasing the variance of the local state gradually expands the range of γ_L and γ_T values for which *Separation* yields a higher expected payoff from unit D_T. For sufficiently high values of the variance of the local state, this range eventually encompasses the entire region beneath the 45° line, including the line itself.

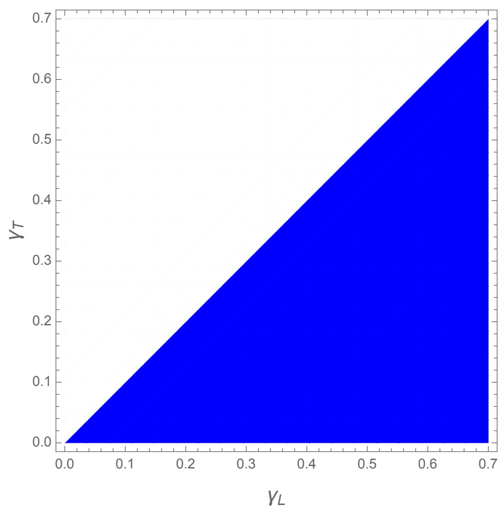
[17] This holds even when accounting for the change in the scale of the axes (which have to be adjusted because of **A2**).



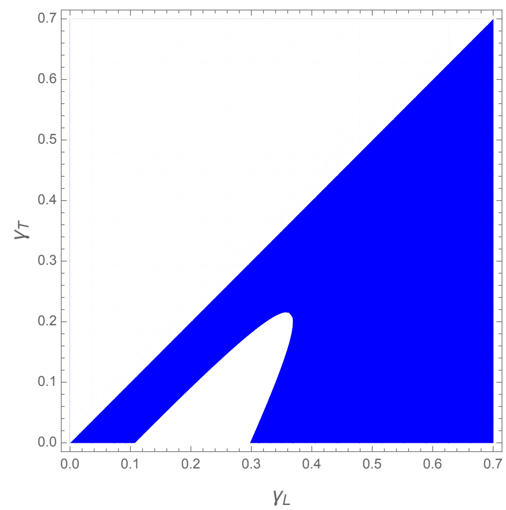
(a) Baseline γ_P and baseline Var (θ_P)



(b) Baseline γ_P and high Var (θ_P)



(c) Low γ_P and baseline Var (θ_P)



(d) Low γ_P and high Var (θ_P)

Figure 2: Illustrating Proposition 1

Note: The figure shows in blue the range of values for elites' preferences $\{\gamma_L, \gamma_T\}$, where $\gamma_L \geq \gamma_T$, that satisfy Proposition 1, i.e., where *Separation* benefits ruler's expected payoff from the urban unit D_T. Baseline (resp., low) value of γ_P corresponds to $\gamma_P = 0.9$ (resp., $\gamma_P = 0.7$). Similarly, baseline (resp., high) value of variance of the common state corresponds to $\overline{\theta} = 5\sqrt{3}$ (resp., $\overline{\theta} = 10\sqrt{3}$). The value of $\underline{\theta}$ is fixed at $\sqrt{3}$, implying that the variance of the local state is equal to 1 in all panels.

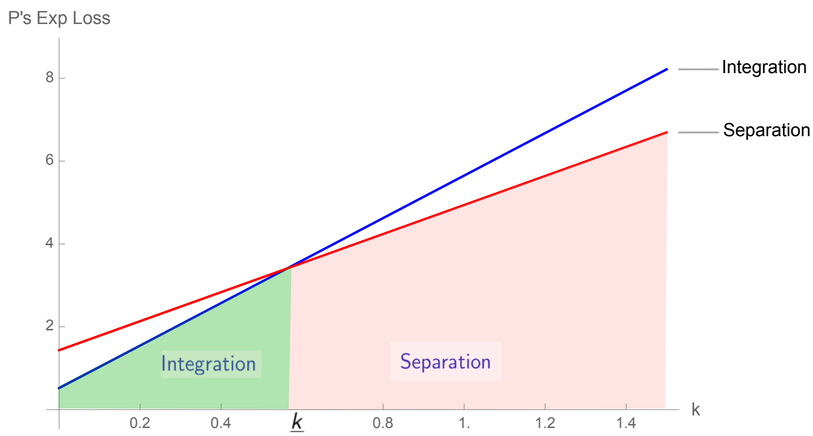


Figure 3: Integration vs. Separation and the Economic Potential of the Town

Note: The figure illustrates the ruler's expected losses under *Integration* and *Separation* as a function of k_T (the economic potential of the town), where k is defined as $\frac{k_T}{k_L}$, with k_L normalized to 1. The figure shows that the ruler's expected loss is lower under *Integration* for low values of k_T, while *Separation* is optimal when k_T exceeds $\underline{k}$. Parameters values in the figure are $\gamma_L = 0.7$ and $\gamma_T = 0.3$. The remaining parameters are our baseline values.

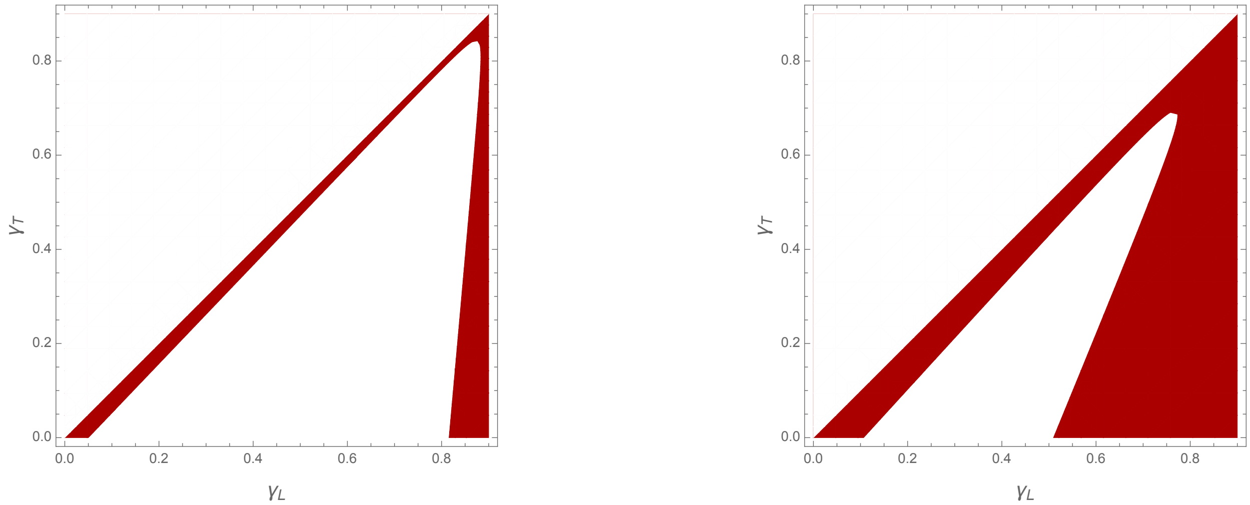
b in Proposition 1). Figure 4 complements Figure 3 by illustrating how the range of values for γ_L and γ_T under which P prefers *Separation* increases as k_T grows. This highlights a key interaction between preferences and economic potential: As k_T increases, the ruler may choose *Separation* even if even town elites put significantly lower weight on the common state ($\gamma_T < \gamma_L$), as indicated by the larger area (in red) below the diagonal in Figure 4b.

In Section 5, we examine the predictions regarding $i)$ the role of k_T and $ii)$ the role of preferences using data on medieval English towns' trade potential and municipal liberties.

3.2 The Game of Incomplete Information

In this section, we examine the game in which P has private information about the common state θ_P. In this case, the allocation of regulatory decision rights interacts with the choice of the communication structure between the ruler and the urban elite. We show that the trade-offs between *Separation* and *Integration* shown in Section 3 carry over to the case of incomplete information, and we explore its consequences regarding the ruler's decision of whether to communicate directly about θ_P with A_T.

For both *Integration* and *Separation*, we distinguish between two possible communication structures between P and A_T: $i)$ *direct* communication (i.e., $C_T = 1$), and $ii)$ *indirect* communication, in which A_L (who always learns about θ_P) informs A_T about the common state (i.e., $C_T = 0$).



(a) Low town potential k_T

(b) High town potential k_T

Figure 4: Interplay of Elite Preferences and Economic Potential

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 prefers *Separation* to *Integration*, taking into account P's expected payoff from both units D_L and D_T. Panel (a) uses $k_T = 0.2$, while panel (b) uses $k_T = 1.2$, where $k_L = 1$ for both panels. The remaining parameters for both panels are our baseline values.

3.2.1 Integration

Mirroring the complete information analysis, we first consider the case in which P allocates control over both units' regulatory decisions to A_L, that is, P chooses $R_T = L$. Under *Integration*, the benefit that the landed elite draws from being able to influence the urban elite depends on what the latter know about the common state θ_P.

Direct Communication. Suppose P communicates directly with A_T, i.e., P sets $\mathbf{g} = \{L, 1\}$. Both elites are perfectly informed about the realization of θ_P because P discloses verifiable information. Except for the cost of communication, this scenario is identical to the game of complete information. The actions chosen by the elites are given by (6) and (7), and P's expected payoff is given by (A.3) in Appendix A, subtracting the cost of communication f.

Indirect Communication. Suppose that P discloses the value of θ_P to A_L, who then sends a message m_L about θ_P to A_T. Formally, P sets $\mathbf{g} = \{L, 0\}$. We first show that when A_L is in charge of both regulatory decisions, they will truthfully communicate θ_P to A_T (i.e., $m_L = \theta_P$). To see this, suppose that communication between A_L and A_T has already taken place and note that the FOCs corresponding to the elites' optimization problems are:

$$r_L = a_L = \frac{2}{3}\left[(1-\gamma_L)\,\theta_L + \gamma_L\theta_P\right] + \frac{1}{3}\mathbb{E}_L\left(a_T\right), \tag{13}$$

$$a_T = \frac{1}{2}\left[(1-\gamma_T)\,\theta_T + \gamma_T\mathbb{E}_T\left(\theta_P \mid m_L\right)\right] + \frac{1}{4}\mathbb{E}_T\left(r_T \mid m_L\right) + \frac{1}{4}\mathbb{E}_T\left(a_L \mid m_L\right), \tag{14}$$

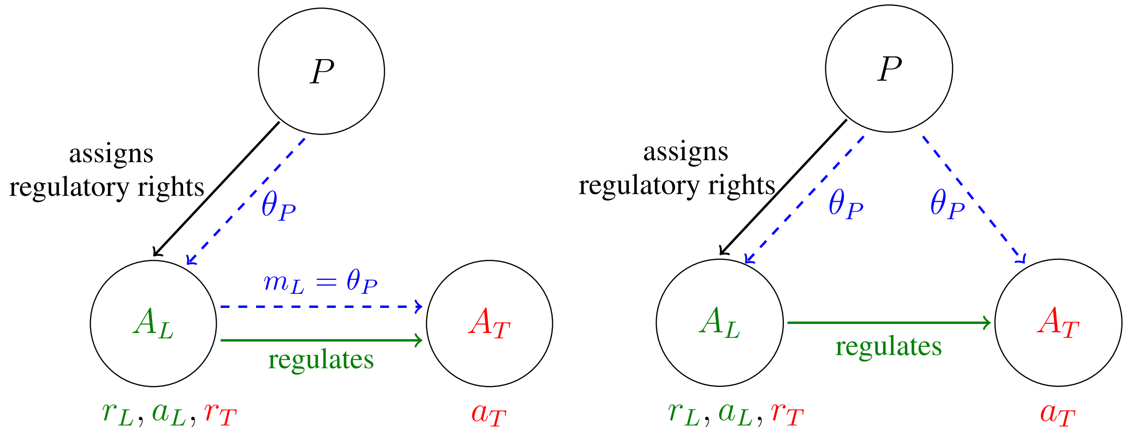


Figure 5: *Integration*: Landed Elite Runs both Rural and Urban Administrations

Note: The figure depicts the two possible communication structures when the landed elite controls both the rural and the urban areas. In Figure (a), the ruler discloses the common state θ_P to the landed elite A_L who, in turn, communicates θ_P truthfully to the urban elite A_T. In Figure (b), the ruler discloses the common state θ_P to both the rural elite and the urban elite.

where $\mathbb{E}_T(\cdot \mid m_L)$ captures A_T's beliefs following the message m_L received from A_L. Moreover, A_L sets r_T so that A_T chooses a_T as close as possible to a_L.[18] If $m_L = \theta_P$, then the optimal actions are given by (6) and (7), which give A_L the highest possible payoff (i.e., zero loss). The following lemma formally states that A_L truthfully communicates θ_P to A_L in equilibrium.

Lemma 2. *Suppose P chooses Integration. Following communication between P and A_L, in the most informative equilibrium of the cheap-talk game between A_L and A_T, A_L truthfully reveals θ_P to A_T.*

Proof. The proof follows from (6) and (7), and by noting that A_L achieve their highest payoff ($U_L = 0$) by truthfully revealing θ_P. □

Intuitively, by truthfully communicating the common state to A_T, A_L can better exploit their control over town regulation to *fully* steer A_T's economic action towards A_L's own ideal point. Having established that communication between A_L and A_T is truthful, we can compute P's expected payoff (see (A.3) in Appendix A). Figure 5 summarizes the case of *Integration* by illustrating the nature of information transmission from the ruler to the elites under the two possible communication structures.

Equilibrium under Integration. From the analysis of communication under *Integration*, the following result holds:

[18] Exactly as in the game of complete information, A_L achieves this by choosing a decision r_T that puts appropriate weights on θ_T, θ_L, and θ_P.

Lemma 3. *Under Integration, P chooses $C_T = 0$ ('indirect' communication).*

Proof. See Appendix A. □

Intuitively, because A_L can be trusted to convey information truthfully to A_T, P chooses *indirect* communication to economize on communication costs.

3.2.2 Separation

Suppose P allocates control over regulatory decision r_T to A_T. Formally, $R_T = T$. Compared to *Integration*, A_L can no longer manipulate r_T to influence A_T's economic action a_T. Instead, the two elites must find a balance between adapting to their ideal points and accommodating each other's preferences for local and common states to achieve a degree of coordination. The elites' ability to achieve their objectives depends on their information about θ_P. Let $\mathbb{E}_i(\theta_P)$ denote A_i's expected value of θ_P. Under *Separation*, the FOCs corresponding to A_i's optimization problem are:

$$r_i = a_i = \frac{2}{3}\left[(1-\gamma_i)\,\theta_i + \gamma_i \mathbb{E}_i(\theta_P)\right] + \frac{1}{3}\mathbb{E}_i(a_j)\,, \tag{15}$$

for $i, j \in \{L, T\}$ and $i \neq j$. As in the game of complete information, both elites achieve perfect internal coordination by optimally setting their regulatory decisions and economic actions equal to each other. We again distinguish two communication scenarios.

Direct Communication. Suppose $\mathbf{g} = \{T, 1\}$, that is, P communicates directly with both elites. Except for the cost of communicating, this scenario is identical to the game of complete information because we assume that P discloses verifiable information about θ_P. The choices made by the elites are given by (9). P's expected payoff is stated in Appendix A, equation (A.4) after subtracting the cost of communication f.

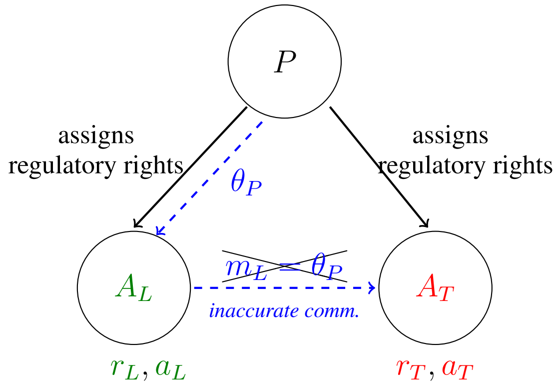
Indirect Communication. Suppose $\mathbf{g} = \{T, 0\}$, that is, P discloses the value of θ_P to A_L, who then sends a message m_L about θ_P to A_T. From (15), because $\mathbb{E}_L(\theta_P) = \theta_P$, the FOCs corresponding to the elites' optimization problems are given by:

$$\begin{aligned} r_L = a_L = {} & \frac{3}{4}(1-\gamma_L)\,\theta_L + \frac{1}{4}(1-\gamma_T)\,\theta_T \\ & + \frac{2}{3}\gamma_L\theta_P + \left[\frac{\gamma_T}{4} + \frac{\gamma_L}{12}\right]\mathbb{E}_T(\theta_P \mid m_L)\,, \end{aligned} \tag{16}$$

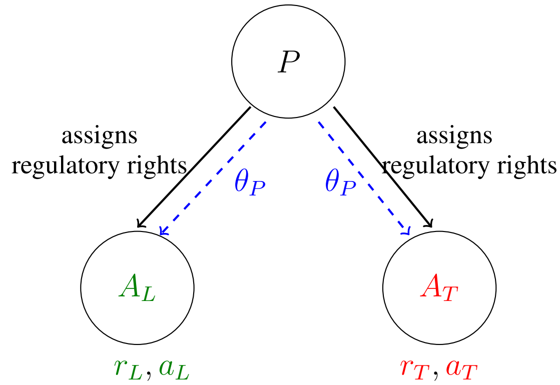
$$\begin{aligned} r_T = a_T = {} & \frac{3}{4}(1-\gamma_T)\,\theta_T + \frac{1}{4}(1-\gamma_L)\,\theta_L \\ & + \left[\frac{3}{4}\gamma_T + \frac{1}{4}\gamma_L\right]\mathbb{E}_T(\theta_P \mid m_L)\,, \end{aligned} \tag{17}$$

where $\mathbb{E}_T(\cdot \mid m_L)$ captures A_T's beliefs following the message m_L received from A_L.

To compute P's expected payoff, we first solve for the equilibrium of the cheap-talk game between elites that occurs in stage 4. The following lemma states its main feature.



(a) *Indirect* Communication



(b) *Direct* Communication

Figure 6: *Separation*: Each Elite Runs their own Administration

Note: The figure depicts the two possible equilibrium communication structures when each elite runs their unit's local administration. In Figure (a), the ruler discloses the common state θ_P to the landed elite A_L who, in turn, imperfectly communicates θ_P to the urban elite A_T. In Figure (b), the ruler discloses the common state θ_P to both the rural elite and the urban elite.

Lemma 4. *Under Separation and 'indirect' communication – i.e.,* $\boldsymbol{g} = \{T, 0\}$ *– there does not exist an equilibrium in which* A_L *truthfully reveals* θ_P *to* A_T.

Proof. See Appendix A. □

As elites face different local conditions (i.e., $\theta_L \neq \theta_T$) and assign different weights to the common state (i.e., $\gamma_L \neq \gamma_T$), A_L has an incentive to misrepresent the value of θ_P in order to induce A_T to select an economic action that better aligns with A_L's own ideal point. Accordingly, and as can be derived using the expressions provided in the proof, the quality of communication improves (but never reaches perfection) as γ_T tends to γ_L.

Figure 6 illustrates the two possible communication structures under *Separation*. Returning to our historical example, in which the landed elite favors wool production while the urban elite prefers silk trade, we can grasp the differences in the landed elite's incentives to relay information under *Integration* and *Separation*. Under *Integration*, the landed elite controls town regulations, enabling it to steer the town's economic action toward wool trade. By truthfully revealing the realization of the common shock, the landed elite allows the urban elite to perfectly anticipate forthcoming regulations in the town. However, under *Separation*, the landed elite loses this regulatory leverage. Consequently, the landed elite has an incentive to distort information about the common shock, so as to indirectly influence the urban elite's actions.

Equilibrium under Separation. We compute P's expected payoff under *indirect* communication in Appendix B, showing that – ignoring the cost of communication – imperfect communication between the elites is detrimental to P compared to the case where A_T knows θ_P. Whether the ruler chooses *direct* communication then depends on its cost relative to the benefit that it provides for P. This leads to the following lemma.

Lemma 5. *Under Separation, there exists a threshold $\underline{f}$ for the cost of 'direct' communication between P and A_T such that:*

i) if $f \leq \underline{f}$, P chooses $C_T = 1$ ('direct' communication), $\forall k_T$;

ii) if $f > \underline{f}$, P chooses $C_T = 0$ ('indirect' communication), for $k_T \in \left[0, \hat{k}\right)$ and $C_T = 1$ ('direct' communication), for $k_T \geq \hat{k}$,

where $\hat{k}(f, \cdot)$ is increasing in f.

Proof. See Appendix A. □

When the cost f of establishing a *direct* communication channel with A_T is low (part *i* in the lemma), P gains from disclosing θ_P directly to A_T rather than choosing *indirect* communication via A_L. Direct disclosure prevents A_L from manipulating information, which can lead to both elites adapting poorly to the common state and failing to coordinate effectively. Part *ii)* establishes that the ruler may opt for *direct* communication even if it is relatively costly ($f > \underline{f}$), provided that the expected benefit from improved information provision outweighs the cost of communication. Because inaccurate information reduces P's expected payoff from the urban area, this choice is made when the size of the urban economy, k_T, is (weakly) greater than the threshold $\hat{k}$.

3.2.3 Equilibrium Governance Structure

We now study P's preferred allocation of administrative control *and* communication structure for different configurations of parameters. To limit the number of cases to consider, we perform this comparison for low communication costs f. Specifically, we assume $f = \epsilon$, with $\epsilon > 0$ as small as one likes (**A3**). Under **A3**, there exists a large scope for communication. This approach simplifies the analysis and is sufficient to establish our main result of interest.[19] The following proposition states our main result.

Proposition 2. *Suppose the cost of 'direct' communication is negligible (but strictly positive). If condition $a)$ and/or $b)$ in Proposition 1 are satisfied, there exists a threshold $\tilde{k}$ for k_T such that P chooses Integration with 'indirect' communication for $k_T \in \left[0, \tilde{k}\right)$ and Separation with 'direct' communication for $k_T \geq \tilde{k}$.*

If neither condition $a)$ nor $b)$ in Proposition 1 holds, P chooses Integration with 'indirect' communication for all k_T.

[19] For a full characterization of the equilibrium governance structure when f can take any positive value, see Online Appendix B.

Proof. See Appendix A. □

Proposition 2 characterizes the equilibrium allocation of decision rights over urban regulatory actions and the associated communication structure as a function of $i)$ the relative potential of the urban economy and $ii)$ the degree of alignment in players' preferences. To build the core intuition, Proposition 2 focuses on the case with low cost of *direct* communication between P and A_T. However, our results also hold more generally under higher costs of communication.[20] Proposition 2 establishes that, under incomplete information, a change in the allocation of decision rights triggers an adjustment in the communication structure: Under *Integration*, P relies on a system of *indirect* communication to convey *perfect* information about θ_P via A_L to A_T. In contrast, under *Separation*, P engages in *direct* communication with both elites to prevent A_L from manipulating information. The shift in decision rights allocation, transitioning from *Integration* to *Separation*, and the alteration in the communication structure between the ruler and the urban elite, moving from *indirect* to *direct* communication, reinforce each other and result in *all* actions assigning more weight to the preferences of the urban elite. Figure 7 illustrates these trade-offs by comparing the ruler's expected losses under *Integration* and *Separation*, with further distinction between *indirect* and *direct* communication in the *Separation* scenario.

The result stated in Proposition 2 captures the significant shift in the composition of medieval and early modern parliaments that occurred throughout Western Europe. Following the Commercial Revolution, merchant towns obtained self-governance, and therefore had to be persuaded into choosing an allocation of resources that better targeted the realization of the common shock (e.g., moving resources towards food supply for soldiers). As highlighted by Harriss (1975, pp. 41-2), in England the traditional assembly of landed elites saw a diminishing influence over the decision-making processes of these towns, prompting the monarch into initiating *direct* communication with urban representatives in parliament. We further discuss these institutional dynamics in Section 5.

4 Discussion of Modeling Choices and Extensions

In this section, we evaluate our core modeling choices (presented in Sections 2 and 3) vis-à-vis alternative approaches.

Information about local states. In our baseline setup, complete information about local states allows us to focus on top-down ruler-elite communication regarding the common state. In Online Appendix E, we explore an alternative scenario where assemblies serve as bottom-up information-gathering forums for rulers. This modified setup makes the common state and rural conditions

[20] Proposition B.1 in Online Appendix B extends the analysis of Proposition 2 to scenarios where the communication cost f can take any positive value. Our findings confirm that the core results of Proposition 2 remain robust under these general conditions. However, for very high costs of *direct* communication, we also identify an intermediate range of k_T values where P chooses *Separation* with *indirect* communication.

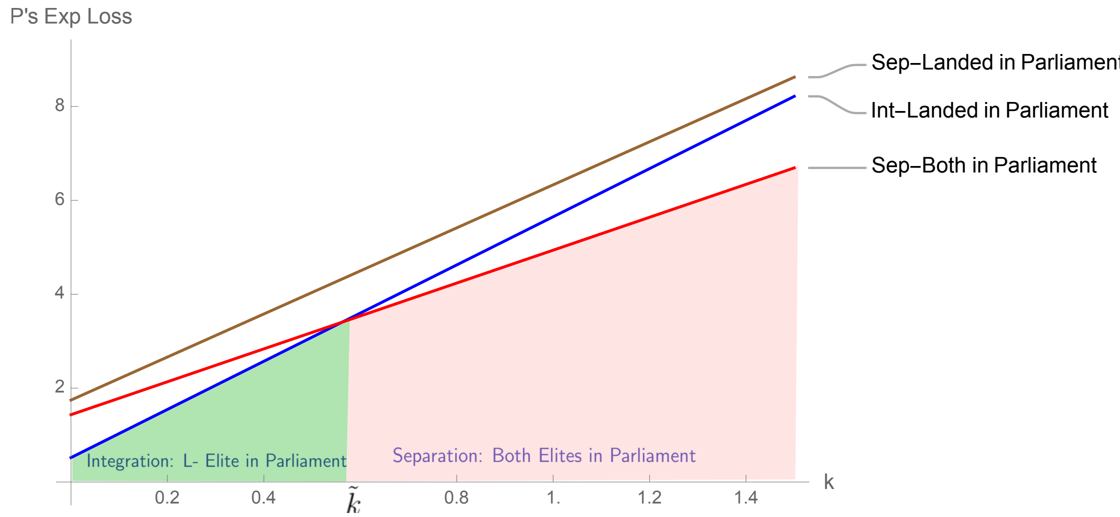


Figure 7: Governance Structure and the Economic Potential of the Town

Note: The figure illustrates the ruler's expected losses under *Integration* and *Separation* as a function of k_T, where k is defined as $\frac{k_T}{k_L}$, with k_L normalized to 1. The figure shows part a in Proposition 2: As k_T grows sufficiently large, the ruler transitions from *Integration* with *indirect* communication to *Separation* with *direct* communication with both elites. Parameters' values in the figure are $\gamma_L = 0.7$, $\gamma_T = 0.3$, and $f = 0$. The remaining parameters are our baseline values.

public, while the town's state is known only to urban and landed elites. We introduce a ruler's action requiring coordination with elites' decisions and allow the ruler to choose between learning town conditions via landed or urban elites. As in the main analysis, we find that as towns gain importance, they achieve self-governance and are summoned to assemblies, as landed elites become unreliable intermediaries.

Our core model assumes that local elites know each other's states due to geographical proximity and can communicate without cost. Alternatively, we could have considered distant elites privately informed about their local conditions, communicating with each other (and the ruler) at a cost within a central assembly. In this scenario, the ruler would risk elites coordinating on local states instead of the common state when assembled (see Hernández, 2020, pp. 356-8). As a consequence, the ruler may prefer a system of bilateral *direct* communication with each elite rather than collective communication in an assembly.

Asymmetries between elites. We assumed that $i)$ the landed elite always controls the administration of the rural area, and $ii)$ the ruler always discloses θ_P to the landed elite. These assumptions streamline the analysis by limiting the number of cases to consider, allowing us to focus on the process by which towns obtain municipal autonomy and representation in parliament. A more general setup where rural areas can also be controlled by towns, and where the ruler has to choose whether to communicate with rural areas, does not alter our main results. In this more general setup, if the town's economic potential significantly exceeds that of the rural area, an inverse pattern, with the town governing the surrounding countryside and being the only elite in direct communication with the ruler, can emerge.

Incentives to learn the common state. We assume that the cost of communication is entirely borne by P, and elites have no choice but to listen to P. Alternatively, we could have assumed that elites also bear a cost from listening to P, allowing them to choose whether to remain ignorant about the realization of the common state by deciding not to incur this cost. In this context, it can be shown that an elite has a stronger incentive to engage in communication with P when they control the administration of their area. Specifically, A_T benefits more from learning θ_P under *Separation* than under *Integration*. This difference arises because A_T can more effectively exploit information to target their own ideal point under *Separation*. Online Appendix C offers a more detailed discussion.

Imperfect control under Integration. In our baseline setup, under *Integration*, the landed elite can fully and costlessly influence urban regulations, ensuring that the urban elite adopts an economic action that perfectly matches the landed elite's preferred policy. In Online Appendix D, we relax this assumption by allowing the landed elite to exert only imperfect control over urban regulations under *Integration*. In this modified setting, our main results remain robust while offering additional insights that we discuss in Online Appendix D.

Voting. In our model, the assembly serves as a forum for players to exchange information. Its function is deliberative, meaning that it does not reach a binding decision through mechanisms such as majority voting. This matches significant historical examples, like medieval and early modern parliaments that coordinated efforts by localities to meet war threats (see, for instance, Mitchell, 1951, p. 226). It also corresponds to modern organizational settings, such as inter-divisional meetings where headquarters and divisional leaders communicate to coordinate decision-making in response to changes in their environment.

Monetary transfers. Another feature of our model is the lack of monetary transfers and the consequent inability of the players to enter contracts with each other. This assumption captures the idea that it is difficult to enforce complex contracts that would make the institutional setup irrelevant (see Acemoglu, 2003). However, the economic actions made by the elites in our model can be interpreted as the allocation of resources, including money, to different goals, such as contributing to war efforts or improving local infrastructure.

5 Historical Applications

Our framework sheds light on the emergence of urban self-governance, whereby urban elites obtained administrative control over towns and representation in central assemblies, ultimately shifting the balance of powers. These dynamics played out in different historical contexts. In this section, we first discuss Western Europe and present empirical evidence for medieval England, focusing on the rise of the merchant class and the creation of parliaments. We then move on to the cases of Spanish America and ancient Rome.

5.1 Western Europe and Empirical Evidence for England

In the medieval period, before the Commercial Revolution, control over rural and urban areas across Western Europe rested largely with (military) landed elites. These elites assumed positions as county officials, wielding extensive jurisdictional authority over towns and their merchant elites.[21] Central assemblies typically included landed elites, while sidelining merchants. Landed elites were key in facilitating administrative coordination across the realm: They disseminated information about the policies agreed upon in the assembly to towns and reported on local conditions to the monarch. Information dissemination through landed elites was possible because they were in frequent contact with towns, performing various local administrative tasks such as tax collection and handling contractual disputes in county courts (see Harding, 1973; Maddicott, 1978, for the case of England).[22] According to our model (Lemma 2), this system was effective because the landed elite could influence merchant decisions through regulations and did not have to fall back on biased communication.

The Commercial Revolution significantly boosted the economic potential of trading towns. From the 12th century, central rulers granted merchant elites administrative autonomy in exchange for higher taxes, which were offset by increased urban efficiency (Ballard and Tait, 1923; Kiser and Barzel, 1991). The wave of municipal autonomy weakened the influence of landed elites over municipal governance and consequently their ability to influence towns' decisions. Through the lens of our model (Lemma 4), landed elites thus had incentives to manipulate town decisions by distorting information, which they passed on in county courts. The historical evidence is consistent with this mechanism: In England, the Crown no longer required autonomous towns to attend county courts to conduct administrative business and exchange information, establishing instead direct communication channels with urban elites (Mitchell, 1951; Carpenter, 1996). In our model's logic, mediation by the landed elite was abandoned because they could no longer be trusted to act as reliable information intermediaries between the center and towns.[23] By the 13th century, central

[21]For England, see Mitchell (1951). For France and Spain, see Sanz (1994), Ladero Quesada (1994), and Hilton (1995).

[22]In the words of Maddicott (1978, pp. 33-35), "By tradition the county court was the place for the publication of charters of liberties, new statutes and ordinances, routine administrative decrees, and many *ad hoc* announcements which often had a bearing on national politics. It was by proclamations that men became aware of events at Westminster and that public opinion could be most effectively shaped in response to the government's needs. As in the sixteenth century, they provided the shires with orders, information and the official view. [...] The instructions to the sheriff which prefaced a proclamation normally ordered its publication 'in your full county court and in cities, boroughs, market towns and other places where you shall see fit; [...].'"

[23]In the broader context of county and borough administrations, White (1933, pp. 89, 93, and 103) highlights that, beginning with Henry II in the late 12th century, English monarchs distrusted sheriffs when it came to i) carrying out

rulers across Western Europe included representatives of autonomous towns in regional and central assemblies, providing urban elites with voice and ears on matters concerning the entire polity (Marongiu, 1968). These changes influenced economic and institutional dynamics for centuries inside and outside Western Europe – such as the financing of colonial enterprises, trade policies, and the gradual extension of the franchise and introduction of checks and balances on the executive (Acemoglu et al., 2005; Angelucci et al., 2022).

Empirical Evidence for England: In what follows, we confront some of the core mechanisms in our model with historical data. We leverage the dataset assembled by Angelucci et al. (2022) for England after the Norman Conquest in 1066 and examine the period of the Commercial Revolution until the Black Death in 1348. We focus on the 141 towns in the royal demesne of England, where the crown had direct decision power over self-governance – specifically, the power to grant townsmen the right to elect the entire body of municipal officials with judicial and fiscal prerogatives.[24] These royal boroughs were relatively evenly distributed throughout England (see Figure 1 in Angelucci et al., 2022).

We begin with the prediction from Proposition 1 and Corollary 1 that rising economic potential of towns (high k_T) leads to administrative separation, i.e., urban self-governance. We use exposure to trade as a proxy for towns' economic potential during the Commercial Revolution. Those are towns located on the sea coast, on a navigable river, or on an ancient Roman road (which regained importance when trade expanded after the Dark Ages). In accordance with Angelucci et al. (2022), Panel A in Figure 8 shows that our model prediction is strongly borne out in the data: Trade towns were about three times more likely to receive self-governance before 1348 than other royal towns, and this difference is statistically highly significant. Table S.1 in the Online Appendix shows that this result is not driven by regional patterns (it holds with county fixed effects) or by the wealth of towns (we control for taxable wealth from the Domesday Book).

Next, we test another feature of our model: Propositions 1 and 2 highlight how the preferences of ruler and elites influence whether towns obtain self-governance. In particular, towns whose preferences were closely aligned with the landed elite and with the crown should have been more prone to receive self-governance. As a proxy for the alignment of preferences we use an indirect measure: Whether a town received a Murage grant from the crown by 1348. These grants gave towns the right to collect taxes to maintain city walls – a crucial feature in defending the realm. Murage grants were therefore typically bestowed upon towns situated near the Welsh and Scottish

certain local administrative duties and ii) accurately conveying information between the center and localities. This distrust stemmed from the fact that sheriffs were significant landholders with personal interests that could bias their actions.

[24] We deliberately exclude mesne towns from our discussion and analysis. Because these were under the direct control of (mesne) lords, the king could not grant them self-governance rights. For a detailed historical discussion, see Angelucci et al. (2022).

borders. Because walls could ultimately insulate towns from royal power, Murage grants were a sign that the crown trusted these towns not to abuse their empowered position. In the words of Turner (1971, p. 16), “The relations between Town [receiving a Murage grant] and Crown were good, and co-operation close.” In addition, landed elites in border regions were also closely aligned with the ruler, as they were the first to fight when wars broke out.[25] Panel B in Figure 8 shows that, indeed, Murage towns were much more likely to receive self-governance, confirming our model prediction. Table S.1 in the Online Appendix shows that these results hold when we control for regional patterns, for wealth, and when we restrict the sample to towns close to the Scottish or Welsh border.

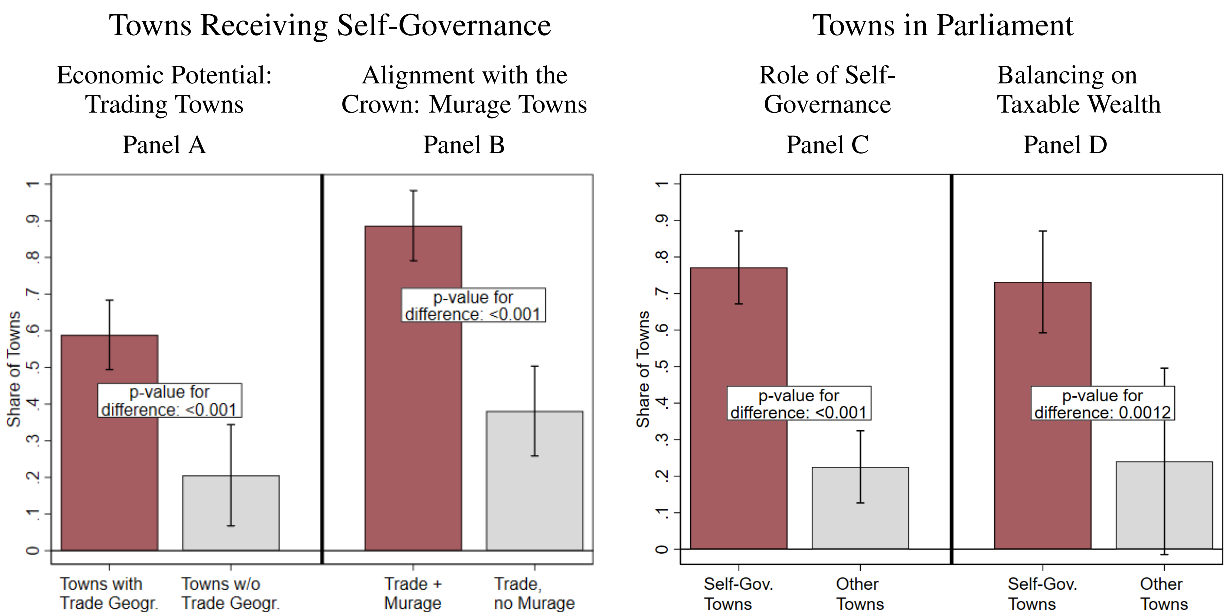


Figure 8: Testing Model Predictions in Medieval England

Note: The figure illustrates that central predictions of our model hold in the data for medieval England. Panel A shows that towns with trade geography (located on the sea coast, a navigable river, or an ancient Roman road) were significantly more likely to receive self-governance. Panel B shows that the same is true for towns whose preferences were more aligned with the crown (as proxied by Murage grants – the rights to repair and maintain city walls, which was crucial for defense). Panel C provides evidence for the prediction that self-governing towns will be summoned to Parliament for direct communication with the Crown. Panel D shows that this holds also when balancing the sample with respect to town-level taxable wealth from the Domesday Book in 1086. Tables S.1 and S.2 in the Online Appendix provide robustness checks of these results.

We now turn to Proposition 2: That self-governing towns will be summoned to Parliament for direct communication with the ruler. Reflecting the findings of Angelucci et al. (2022), Panel C in

[25]The office of sheriff in border regions was typically held by landed elites with military backgrounds – whose preferences closely matched those of the crown and who were therefore trusted by the monarch to prioritize the realm’s defense, as evidenced by their control of strategic royal castles (see the *Calendar of Patent Rolls*, as cited by Reid, 1917).

Figure 8 shows that 77% of self-governing towns were represented in Parliament by 1348, as compared to only 22% of all other royal towns. A possible concern is that economic importance may have led directly to both self-governance and representation in Parliament.[26] Panel D addresses this concern by balancing towns with and without self-governance in terms of their taxable wealth in 1086.[27] The relationship between self-governance and representation in Parliament is equally strong in the balanced sample, implying that towns' wealth (or bargaining power) are unlikely to confound our results. Table S.2 provides additional specifications and robustness checks.

Overall, the historical record for England strongly supports the key mechanisms in our model. We now discuss qualitative evidence for similar dynamics in other historical settings.

5.2 Qualitative Evidence for Mechanisms in other Regions

Spanish America: Our analysis also applies to 16-18C Spanish America. In Appendix F.2, we provide detail for our prediction on the role of towns' economic potential: In line with our model, when profits from colonial trade grew in the 16th and 17th centuries, local (*creole*) elites gained administrative power (*Separation*) at the expense of provincial-level Spanish officials, and they also began to communicate directly with the crown.

However, this administrative structure was reversed in the latter half of the 18th century due to a shift in the Spanish crown's priorities. As studied by Chiovelli et al. (2023), rising fiscal pressures from wars against European powers led the Bourbon monarchs to seek increased contributions to the war effort from their colonial territories. In our model's terms, the crown's weight on the common state γ_P increased, leading to a divergence in policy preferences from those of the *creole* elites, who put less weight on funding the crown's distant wars. Proposition 1 predicts that this would favor *Integration*, i.e., a concentration of administrative power in the hands of a more loyal elite. Accordingly, the Spanish crown initiated reforms that replaced the local (*creole*) elites with a new corps of Spanish-born provincial governors (*intendants*) whose preferences were more closely aligned with its own (Fisher, 1928). This shift prioritized policy coordination to fund external wars, sacrificing the ability of local *creole* elites to shape policies in their own interests, including their control over the indigenous population. As a consequence, the reforms met with resistance from the *creole* elites – a process that arguably prompted the formation of independence movements, as highlighted by Chiovelli et al. (2023).

Ancient Rome: A further application of our model is the organization of Roman provinces. As

[26] For example, one may worry that economically more important towns bought or demanded seats – although this contradicts the historical record, as representation in Parliament became desirable for English towns after 1500 (Pasquet, 1964; Angelucci et al., 2022). We also note that, consistent with our reasoning, 54 of the 58 self-governing royal boroughs in Parliament gained self-governance first. The remaining four are excluded from the analysis.

[27] We use entropy balancing, which creates balanced samples by reweighing the observations without self-governance to match the mean and variance of taxable wealth in royal towns with self-governance. Taxable wealth is from the Domesday Book. See Angelucci et al. (2022) for data sources.

the Roman dominion expanded across Europe, it introduced a relatively homogeneous administrative structure, partitioning newly acquired territories into provinces ruled by centrally appointed officials.[28] Before the 2nd century BC, tax collection in provincial towns was primarily handled by outsiders (*publicani*), while local urban elites had limited influence over town administrations. Direct communication between provincial urban elites and Rome was infrequent, with indirect communication through provincial assemblies likely playing a more significant role.[29] During the 2nd and 1st centuries BC, as provincial towns grew economically vital (France, 2021, pp. 232-3), Rome restructured local governance, granting urban elites administrative control over selected towns. In line with our framework, these changes aimed to empower towns to adapt to local contingencies and curb discontent. However, the increased self-governance exacerbated coordination challenges, prompting Rome to establish direct ties with autonomous urban elites (see Fernoux, 2019; France, 2021, pp. 327-9, 375-6). This policy was implemented by increasing towns' participation in provincial assemblies and allowing them to send representatives to Rome, enhancing their influence over policies (France, 2021, pp. 401-2).

6 Conclusion

Over six decades after James March (1962) encouraged applying political science frameworks to firms, our paper takes a reverse approach. Anchored in organizational economics and the literature on multi-divisional firms, our model incorporates key elements to analyze the organizational challenges of historical central states. In the spirit of March's call, our framework is also relevant to the study of modern organizations. In our model, elites make inalienable decisions affecting the whole polity. For instance, urban elites make decisions on commerce even if they do not run town administrations, contrasting with the usual assumption of fully transferable decision rights in the literature on multi-divisional firms. Our approach also applies to corporate settings: While an engineering division might hold sway over product design, the decisions in the product design team remain essential for the company overall. Our model shows that such interactions are important in determining the organizational structure, including whether engineering should indeed control product design, or whether the latter should become a separate division within the firm.

Our model also emphasizes the role of the communication network among all players, including indirect communication. It explores whether an elite should directly interact with a central authority, or communicate via another elite, balancing factors such as communication costs and the reliability of intermediaries. This parallels modern organizations contemplating executive team

[28] For the organization of the provinces see the contributions in Barrandon and Kirbihler (2019) and France (2021, pp. 105-9, 119-20, 151-5, 327-8).

[29] Instances of direct communication between Rome and delegates of provincial towns often revolved around grievances pertaining to the conduct of tax farmers. Little information survived about the participation of towns in provincial assemblies under the jurisdiction of centrally-appointed magistrates (France, 2021, pp. 133-4, 142-3, 279-81, 290-8).

composition. For the specific example above, our model suggests that if product design gains autonomy, it should be directly represented in the executive team to prevent information distortion by other divisions seeking to manipulate product design decisions in their favor.

Lastly, our model emphasizes the role of preference heterogeneity, in line with Cyert and March (1963) who state that "our impression is that most actual managers devote much more time and energy to the problems of managing their [internal] coalition than they do to the problems of dealing with the outside world" (as cited by Gibbons, 2023). While models typically focus on headquarters' prioritization of divisions based on their importance, we add another layer: the central authority considers variations in preferences among herself and elites when designing the administrative structure. Likewise, in firms, the CEO and divisional leaders frequently hold contrasting perspectives. In this context, adapting our approach of modeling coalition dynamics to the study of corporate organizational design promises novel insights.

References

Acemoglu, D. (2003). Why Not a Political Coase Theorem? Social Conflict, Commitment, and Politics. *Journal of Comparative Economics 31*(4), 620–652.

Acemoglu, D., S. Johnson, and J. A. Robinson (2005). The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth. *American Economic Review 95*(3), 546–579.

Acemoglu, D. and J. A. Robinson (2001). A Theory of Political Transitions. *American Economic Review*, 938–963.

Alesina, A. and E. Spolaore (1997, 11). On the Number and Size of Nations. *The Quarterly Journal of Economics 112*(4), 1027–1056.

Alesina, A. and E. Spolaore (2003, 11). *The Size of Nations*. The MIT Press.

Alonso, R., W. Dessein, and N. Matouschek (2008). When Does Coordination Require Centralization? *American Economic Review 98*(1), 145–79.

Angelucci, C., S. Meraglia, and N. Voigtländer (2022). How Merchant Towns Shaped Parliaments: From the Norman Conquest of England to the Great Reform Act. *American Economic Review 112*(10), 3441–87.

Ballard, A. and J. Tait (1923). *British Borough Charters 1216–1307* (1st ed.). Cambridge University Press.

Bardhan, P. K. and D. Mookherjee (2000, May). Capture and governance at local and national levels. *American Economic Review 90*(2), 135–139.

Bardhan, P. K. and D. Mookherjee (2006). Decentralisation and accountability in infrastructure delivery in developing countries*. *The Economic Journal 116*(508), 101–127.

Baron, D. P. (2000). Legislative Organization with Informational Committees. *American Journal of Political Science 44*, 485–505.

Barrandon, N. and F. Kirbihler (Eds.) (2019). *Les Gouverneurs et les Provinciaux sous la République Romaine*. Presses Universitaires de Rennes.

Barzel, Y. (1989). *Economic Analysis of Property Rights*. Cambridge University Press.

Besley, T. and T. Persson (2009, September). The origins of state capacity: Property rights, taxation, and politics. *American Economic Review 99*(4), 1218–44.

Besley, T. and T. Persson (2010). State capacity, conflict, and development. *Econometrica 78*(1), 1–34.

Cam, H. M. (1963). *Liberties & Communities in Medieval England: Collected Studies in Local Administration and Topography* (1st ed.). London: Merlin Press.

Carpenter, D. A. (1976). The Decline of the Curial Sheriff in England 1194–1258. *English Historical Review 91*(358), 1–32.

Carpenter, D. A. (1996). *The Reign of Henry III*. A&C Black.

Chiovelli, G., L. Fergusson, L. Martinez, J. D. Torres, and F. Valencia Caicedo (2023, August). Bourbon Reforms and State Capacity in the Spanish Empire. *Available at SSRN*.

Cyert, R. M. and J. G. March (1963). *A Behavioral Theory of the Firm*. Prentice Hall/Pearson Education.

Dessein, W. and T. Santos (2006). Adaptive Organizations. *Journal of Political Economy 114*(5), 956–995.

Dewan, T., A. Galeotti, C. Ghiglino, and F. Squintani (2015). Information Aggregation and Optimal Structure of the Executive. *American Journal of Political Science 59*(2), 475–494.

Downing, B. M. (1989). Medieval Origins of Constitutional Government in the West. *Theory and society 18*(2), 213–247.

Epstein, L. (2000). *Freedom and Growth: The Rise of States and Markets in Europe, 1300-1750*. London: Routledge.

Fearon, J. D. (2011). Self-enforcing Democracy. *The Quarterly Journal of Economics 126*(4), 1661–1708.

Fernoux, H.-L. (2019). Les Ambassades Civiques des Cités de la Province d'Asie Envoyées à Rome au Ier s. av. J.-C. : Législation Romaine et Prérogatives des Cités. In N. Barrandon and F. Kirbihler (Eds.), *Les Gouverneurs et les Provinciaux sous la République Romaine*, pp. 77–99. Presses Universitaires de Rennes.

Fisher, L. E. (1928). The Intendant System in Spanish America. *The Hispanic American Historical Review 8*(1), 3–13.

Foarta, D. and M. Ting (2023). Organizational capacity and project dynamics. *Stanford University Graduate School of Business Research Paper No. 4321890*. George J. Stigler Center for the Study of the Economy the State Working Paper No. 339.

France, J. (2021). *Tribut: Une Histoire Fiscale de la Conquête Romaine*. Les Belles Lettres.

Gennaioli, N. and H.-J. Voth (2015). State Capacity and Military Conflict. *Review of Economic Stud-*

ies 82(4), 1409–1448.

Gibbons, R. (2023, May). From Coase to Culture: Visible Hands Build Equilibria. Technical report, MIT.

Gilligan, T. W. and K. Krehbiel (1987, 10). Collective Decisionmaking and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures. *The Journal of Law, Economics, and Organization 3*(2), 287–335.

Gilligan, T. W. and K. Krehbiel (1989). Asymmetric Information and Legislative Rules with a Heterogeneous Committee. *American Journal of Political Science 33*, 459–490.

Gilligan, T. W. and K. Krehbiel (1990). Organization of Informative Committees by a Rational Legislature. *American Journal of Political Science 34*, 531–564.

González de Lara, Y., A. Greif, and S. Jha (2008). The Administrative Foundations of Self-enforcing Constitutions. *American Economic Review, Papers & Proceedings 98*(2), 105–109.

Greif, A. (2008). The Impact of Administrative Power on Political and Economic Developments: Toward a Political Economy of Implementation. In E. Helpman (Ed.), *Institutions and Economic Performance*, Chapter 1, pp. 17–63. Harvard University Press.

Harding, A. (1973). *The Law Courts of Medieval England*. London: George Allen & Unwin.

Harriss, G. L. (1975). *King, Parliament, and Public Finance in Medieval England to 1369*. Oxford: Clarendon Press.

Hernández, S. T. S. (2020). *Building an Empire in the New World. Taxes and Fiscal Policy in Hispanic America during the Seventeenth Century*. Ph. D. thesis, Universidad Carlos III de Madrid.

Hilton, R. H. (1995). *English and French Towns in Feudal Society: A Comparative Study*. Cambridge University Press.

Johnson, N. D. and M. Koyama (2014). Tax Farming and the Origins of State Capacity in England and France. *Explorations in Economic History 51*, 1–20.

Kiser, E. and Y. Barzel (1991). The Origins of Democracy in England. *Rationality and Society 3*(4), 396–422.

Ladero Quesada, M. Á. (1994). Monarquía y Ciudades de Realengo en Castilla. Siglos XII-XV. *Anuario de Estudios Medievales 24*, 719–774.

Levi, M. (1988). *Of Rule and Revenue*. University of California Press.

Lizzeri, A. and N. Persico (2004). Why Did the Elite Extend the Suffrage? Democracy and the Scope of Government with an Application to Britain's "Age of Reform"'. *Quarterly Journal of Economics 119*(2), 707–765.

Maddicott, J. R. (1978). The County Community and the Making of Public Opinion in Fourteenth-Century England. *Transactions of the Royal Historical Society 28*, 27–43.

March, J. (1962). The Business Firm as a Political Coalition. *Journal of Politics 24*, 662–678.

Marongiu, A. (1968). *Medieval Parliaments: a Comparative Study*. London: Eyre & Spottiswoode.

Mastrorocco, N. and E. Teso (2023). State Capacity as an Organizational Problem. Evidence from the Growth of the US State Over 100 Years.

Mayshar, J., O. Moav, and Z. Neeman (2017). Geography, Transparency, and Institutions. *American Political Science Review 111*(3), 622–636.

Mazín, Ó. (2013). Leer la Ausencia: Las Ciudades de Indias y las Cortes de Castilla, Elementos para su Estudio (Siglos XVI y XVII). *Historias 84*, 99–110.

Mitchell, S. K. (1951). *Taxation in Medieval England*, Volume 15. Yale University Press.

Myerson, R. B. (2008). The Autocrat's Credibility Problem and Foundations of the Constitutional State. *American Political Science Review 102*(01), 125–139.

North, D. C., J. J. Wallis, and B. R. Weingast (2009). *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge University Press.

North, D. C. and B. R. Weingast (1989). Constitutions and Commitment: The Evolution of Institutions Governing Public Shoice in Seventeenth-Century England. *The Journal of Economic History 49*(04), 803–832.

Oates, W. E. (1972). *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.

Pasquet, D. (1964). *An Essay on the Origins of the House of Commons* (2nd ed.). Merlin Press, London.

Puga, D. and D. Trefler (2014). International Trade and Institutional Change: Medieval Venice's Response to Globalization. *Quarterly Journal of Economics 129*(2), 753–821.

Rantakari, H. (2008). Governing Adaptation. *The Review of Economic Studies 75*(4), 1257–1285.

Reid, R. R. (1917). The Office of Warden of the Marches; Its Origin and Early History. *The English Historical Review 32*(128), 479–496.

Sanz, P. (1994). The Cities in the Aragonese Cortes in the Medieval and Early Modern Periods. *Parliaments, Estates and Representation 14*(2), 95–108.

Snowberg, E. and M. M. Ting (2023). An Organizational Theory of State Capacity. Working Paper Columbia University.

Stasavage, D. (2011). *States of Credit: Size, Power, and the Development of European Polities*. Princeton University Press.

Tiebout, C. M. (1956). A Pure Theory of Local Expenditures. *Journal of Political Economy 64*(5), 416–424.

Treisman, D. (1999). Political Decentralization and Economic Reform: A Game-Theoretic Analysis. *American Journal of Political Science 43*, 488–517.

Turner, H. L. (1971). *Town Defences in England and Wales: An Architectural and Documentary Study, AD 900-1500*. John Baker, London.

Van Zanden, J. L., E. Buringh, and M. Bosker (2012). The Rise and Decline of European Parliaments, 1188–1789. *The Economic History Review 65*(3), 835–861.

Weingast, B. R. and W. J. Marshall (1988). The Industrial Organization of Congress; or, Why Legislatures, Like Firms, Are Not Organized as Markets. *Journal of Political Economy 96*(1), 132–163.

White, A. B. (1933). *Self-government at the King's Command: A Study in the Beginnings of English Democracy*. The University of Minnesota Press.

Appendix A Proofs of Lemmas and Propositions

Proof of Lemma 1. We prove the result stated in the lemma by showing that the inverses of (11) and (12), specifically:

$$\gamma_L > \gamma_T, \tag{A.1}$$

$$\gamma_P > \frac{15\gamma_L - 7\gamma_T}{8} \equiv \underline{\gamma}, \tag{A.2}$$

are *necessary* (but jointly not sufficient) conditions for P's expected payoff from unit D_T to be higher under *Integration* than under *Separation*.

We start the proof by reporting P's expected payoffs under *Integration* and *Separation*. Given $\text{Var}(\theta_L) = \text{Var}(\theta_T) = \frac{\underline{\theta}^2}{3}$ and $\text{Var}(\theta_P) = \frac{\bar{\theta}^2}{3}$, from (2), (6) and (7), it follows that P's expected payoff under *Integration* is equal to:

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

From (2) and (9), P's expected utility under *Separation* is:

$$U_P = -\Bigg\{ \frac{k_L}{2} \left[\left((1-\gamma_P) - \frac{3}{4}(1-\gamma_L) \right)^2 + \frac{1}{16}(1-\gamma_T)^2 \right] \\ + \frac{k_T}{2} \left[\left((1-\gamma_P) - \frac{3}{4}(1-\gamma_T) \right)^2 + \frac{1}{16}(1-\gamma_L)^2 \right] \\ + \left(\frac{k_L}{4} + \frac{k_T}{4} \right) \frac{1}{4} \left[(1-\gamma_L)^2 + (1-\gamma_T)^2 \right] \Bigg\} \frac{\theta^2}{3} \\ - \Bigg\{ \frac{k_L}{2} \left(\gamma_P - \frac{3}{4}\gamma_L - \frac{1}{4}\gamma_T \right)^2 + \frac{k_T}{2} \left(\gamma_P - \frac{3}{4}\gamma_T - \frac{1}{4}\gamma_L \right)^2 \\ + \left(\frac{k_L}{4} + \frac{k_T}{4} \right) \frac{1}{4} (\gamma_L - \gamma_T)^2 \Bigg\} \frac{\bar{\theta}^2}{3}. \tag{A.4}$$

From (A.3), P's expected loss from unit D_T under *Integration* equals:

$$k_T \Bigg\{ \left[\frac{1}{2} \left[(1-\gamma_P)^2 + (1-\gamma_L)^2 \right] + \left[(1-\gamma_L)^2 + (1-\gamma_T)^2 \right] \right] \frac{\theta^2}{3} + \\ + \left[\frac{1}{2} (\gamma_P - \gamma_L)^2 + (\gamma_L - \gamma_T)^2 \right] \frac{\bar{\theta}^2}{3} \Bigg\}. \tag{A.5}$$

From (A.4), P's expected loss from unit D_T under *Separation* is equal to:

$$k_T \Bigg\{ \frac{1}{2} \left[\left(1 - \gamma_P - \frac{3}{4}(1-\gamma_T) \right)^2 + \frac{1}{16}(1-\gamma_L)^2 \right] + \frac{1}{16} \left[(1-\gamma_L)^2 + (1-\gamma_T)^2 \right] \Bigg\} \frac{\theta^2}{3} + \\ + k_T \left\{ \frac{1}{2} \left(\gamma_P - \frac{3\gamma_T + \gamma_L}{4} \right)^2 + \frac{(\gamma_L - \gamma_T)^2}{16} \right\} \frac{\bar{\theta}^2}{3}. \tag{A.6}$$

From (A.5) and (A.6), P incurs a (strictly) smaller loss from D_T under *Integration* than under *Separation* if the left-hand-side in (10) takes a (strictly) negative value.

From (10), the 'local-state component' is weakly positive (and equal to zero when $\gamma_P = \gamma_L = \gamma_T = 1$). Thus, a necessary condition for P to incur a (strictly) smaller loss from D_T under *Integration* than under *Separation* is that the 'common-state component' in (10) is (strictly) lower than zero. From (10), this condition is equivalent to (A.2). Moreover, the 'common-state component' is zero if $\gamma_L = \gamma_T$, meaning that (A.1) must hold for P to incur a (strictly) smaller loss from D_T under *Integration* than *Separation*.

Having established that (A.1) and (A.2) are necessary conditions for P to expect a higher payoff from unit D_T under *Integration*, it follows that the inverses of these conditions – namely, (11) and (12) – are (individually) sufficient conditions for P to expect a higher payoff from unit D_T under

Separation. ■

Proof of Proposition 1. The proof to the proposition builds on condition (10). Specifically, from the proof of Lemma 1, we can conclude that a necessary condition for P to obtain a higher expected payoff from unit D_T under *Separation* is that the left-hand-side in (10) takes non-negative values. For ease of reference, we state this necessary condition:

$$\underbrace{\frac{\underline{\theta}^2}{3}\left\{(1-\gamma_P)^2+\frac{45}{16}(1-\gamma_L)^2+\frac{15}{8}(1-\gamma_T)^2-\left[1-\gamma_P-\frac{3}{4}(1-\gamma_T)\right]^2\right\}}_{\text{Local-State Component}}+ \tag{A.7}$$

$$+\underbrace{\frac{\overline{\theta}^2}{3}\left\{(\gamma_P-\gamma_L)^2-\left(\gamma_P-\frac{1}{4}\gamma_L-\frac{3}{4}\gamma_T\right)^2+\frac{15}{8}(\gamma_L-\gamma_T)^2\right\}}_{\text{Common-State Component}}\geq 0.$$

We analyze parts a and b separately.

Part a): Suppose first that $\gamma_L = \gamma_T$. From Lemma 1, the sufficient condition (11) holds, proving that P's expected payoff from the urban area D_T is higher under *Separation*. Moreover, if $\underline{\theta} > 0$ (i.e., $Var(\theta_i) > 0$, for $i = \{L, T\}$) and the 'local-state component' is strictly positive, P's expected payoff from the urban area D_T is strictly higher under *Separation*.[30]

Consider now the case in which $\gamma_T < \gamma_L$. As a consequence of the reasoning presented in the previous paragraph, by continuity, if $\underline{\theta} > 0$, P's expected payoff from the urban area D_T remains higher under *Separation* for values of γ_T that are just below γ_L. Therefore, the threshold δ is strictly greater than zero.

Part b): Suppose first that $\gamma_P \leq \underline{\gamma}$, where $\underline{\gamma}$ is defined in (12). From Lemma 1, the sufficient condition (12) holds, proving that P's expected payoff from the urban area D_T is higher under *Separation*. Moreover, if $\underline{\theta} > 0$ (i.e., $\text{Var}(\theta_i) > 0$, for $i = \{L, T\}$) and the 'local-state component' is strictly positive, P's expected payoff from the urban area D_T is strictly higher under *Separation*.

Consider now the case in which $\gamma_P > \underline{\gamma_L}$. As a consequence of the reasoning presented in the previous paragraph, by continuity, if $\underline{\theta} > 0$, P's expected payoff from the urban area D_T remains higher under *Separation* for values of γ_P that are just above $\underline{\gamma}$. Therefore, the threshold η is strictly greater than zero.

We conclude the proof by proving that, all else equal, the thresholds δ and η are $i)$ increasing in the variance of the local state (i.e., in $\underline{\theta}$), and $ii)$ decreasing in the variance of the common state (i.e., in $\bar{\theta}$). To prove both parts $i)$ and $ii)$, recall that the 'local-state component' in (A.7) is always positive. Moreover, for any configuration $\{\gamma_T, \gamma_L\}$ that violates (11) and (12) (i.e., for any point

[30] Given **A2** and $\gamma_L = \gamma_T$, the 'local-state component' is zero if and only if $\gamma_P = \gamma_L = \gamma_T = 1$.

belonging to the white area below the $45°$ line in Figure 1), the 'common-state component' in (A.7) is negative. As a consequence, we can conclude that:

i) all else equal, the region of parameter values for $\{\gamma_T, \gamma_L\}$ that satisfy (11) expands as the variance of the local state increases. This is because a higher variance of the local state increases the relative importance of the 'local-state component' compared to the 'common-state component;'

ii) all else equal, the region of parameter values for $\{\gamma_T, \gamma_L\}$ that satisfy (11) contracts as the variance of the common state increases. This is because a higher variance of the common state increases the relative importance of the 'common-state component' compared to the 'local-state component.' ■

Proof of Lemma 3. From Lemma 2 and $F(1) > F(0)$, we have that P prefers $C_T = 0$ to $C_T = 1$. ■

Proof of Lemma 4. We denote a generic cutoff of the partitions by $\theta_{P,n}$, for $n \in \{-\infty, ..., +\infty\}$. We make the following technical assumption:

A4: $\gamma_T \in [0, \underline{\gamma}]$, with $\underline{\gamma} = \frac{\bar{\theta}-\underline{\theta}}{\bar{\theta}+\underline{\theta}}\gamma_L$.

A4 (joint with **A1**) ensures that, for any $\{\theta_L, \theta_T\}$, there exists a realization of θ_P such that A_L truthfully reports θ_P to A_T. Define θ_P^M as the state on the boundary between two partitions, $[\theta_{P,n-2}, \theta_{P,n-1})$ and $[\theta_{P,n-1}, \theta_{P,n}]$, with $\theta_P^M = \theta_{P,n-1}$. A_L sends a message m_L^l (resp., m_L^h) when $\theta_P \in [\theta_{P,n-2}, \theta_{P,n-1})$ (resp., $[\theta_{P,n-1}, \theta_{P,n}]$). When the realized state of nature is on the boundary between two partitions, A_L must be indifferent between communicating $m_L = m_L^l$ and $m_L = m_L^h$. We can therefore write A_L's incentive constraint (IC) at the communication stage as follows (where $B \equiv \frac{3\gamma_T+\gamma_L}{4}$ and $T \equiv \frac{3}{4}((1-\gamma_L)\theta_L - (1-\gamma_T)\theta_T)$):

$$\left\{ \left[T + \gamma_L\theta_P^M - B\mathbb{E}_T\left(\theta_P \mid m_L^l\right)\right]^2 + \frac{1}{4}\left[-T - \gamma_L\theta_P^M + B\mathbb{E}_T\left(\theta_P \mid m_L^l\right)\right]^2 \right\} = \tag{A.8}$$

$$\left\{ \left[T + \gamma_L\theta_P^M - B\mathbb{E}_T\left(\theta_P \mid m_L^h\right)\right]^2 + \frac{1}{4}\left[-T - \gamma_L\theta_P^M + B\mathbb{E}_T\left(\theta_P \mid m_L^h\right)\right]^2 \right\}. \tag{A.9}$$

Consider three cutoffs $\{\theta_{P,n}; \theta_{P,n-1}; \theta_{P,n-2}\}$, so that $\mathbb{E}_T\left(\theta_P \mid m_L^l\right) = \frac{\theta_{P,n-2}+\theta_{P,n-1}}{2}$ and $\mathbb{E}_T\left(\theta_P \mid m_P^h\right) = \frac{\theta_{P,n-1}+\theta_{P,n}}{2}$. After replacing $\theta_{P,n-1}$ for θ_P^M, and given that θ_L, θ_T and θ_P are independently distributed, we write (A.8) as:

$$
-\left[B^2\left(\frac{\theta_{P,n-2}+\theta_{P,n-1}}{2}\right)^2-2B\left(T+\gamma_L\theta_{P,n-1}\right)\left(\frac{\theta_{P,n-2}+\theta_{P,n-1}}{2}\right)\right] \tag{A.10}
$$

$$
-\frac{1}{4}\left[B^2\left(\frac{\theta_{P,n-2}+\theta_{P,n-1}}{2}\right)^2+2B\left(-T-\gamma_L\theta_{P,n-1}\right)\left(\frac{\theta_{P,n-2}+\theta_{P,n-1}}{2}\right)\right] \tag{A.11}
$$

$$
=-\left[B^2\left(\frac{\theta_{P,n-1}+\theta_{P,n}}{2}\right)^2-2B\left(T+\gamma_L\theta_{P,n-1}\right)\left(\frac{\theta_{P,n-1}+\theta_{P,n}}{2}\right)\right] \tag{A.12}
$$

$$
-\frac{1}{4}\left[B^2\left(\frac{\theta_{P,n-1}+\theta_{P,n}}{2}\right)^2+2B\left(-T-\gamma_L\theta_{P,n-1}\right)\left(\frac{\theta_{P,n-1}+\theta_{P,n}}{2}\right)\right]. \tag{A.13}
$$

After some manipulation, because $\theta_{P,n}^2-\theta_{P,n-2}^2=\left(\theta_{P,n}-\theta_{P,n-2}\right)\left(\theta_{P,n}+\theta_{P,n-2}\right)$ we obtain the following non-homogeneous difference equation:

$$
\theta_{P,n}-2\left(\frac{2\gamma_L-B}{B}\right)\theta_{P,n-1}+\theta_{P,n-2}=4\frac{T}{B}. \tag{A.14}
$$

We look for the general solution to (A.14). As a first step, we consider the homogeneous difference equation:

$$
\theta_{P,n}-2\left(\frac{2\gamma_L-B}{B}\right)\theta_{P,n-1}+\theta_{P,n-2}=0. \tag{A.15}
$$

Suppose $\theta_{P,n}=Aw^n$. Then, from (A.15), we obtain:

$$
w^2-2\left(\frac{2\gamma_L-B}{B}\right)w+1=0 \quad \rightarrow \quad w=\frac{1}{B}\left[2\gamma_L-B\pm 2\sqrt{\gamma_L\left(\gamma_L-B\right)}\right], \tag{A.16}
$$

which gives us two distinct real roots. The general solution to (A.15) is:

$$
\theta_{P,n}=A_1\left\{\frac{1}{B}\left[2\gamma_L-B+2\sqrt{\gamma_L\left(\gamma_L-B\right)}\right]\right\}^n \tag{A.17}
$$

$$
+A_2\left\{\frac{1}{B}\left[2\gamma_L-B-2\sqrt{\gamma_L\left(\gamma_L-B\right)}\right]\right\}^n, \tag{A.18}
$$

where A_1 and A_2 are two generic constants.

As a second step, we find a particular solution to the non-homogeneous difference equation in (A.14). Because the term on the right-hand side is a constant, we have:

$$
\theta_{P,n}=\frac{4\frac{T}{B}}{1-2\left(\frac{2\gamma_L-B}{B}\right)+1} \quad \rightarrow \quad \theta_{P,n}=\frac{T}{B-\gamma_L}. \tag{A.19}
$$

Therefore, from (A.17) and (A.19), the general solution to (A.14) is:

$$\theta_{P,n} = A_1 \left\{ \frac{2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)}}{B} \right\}^n + A_2 \left\{ \frac{2\gamma_L - B - 2\sqrt{\gamma_L(\gamma_L - B)}}{B} \right\}^n + \frac{T}{B - \gamma_L}. \tag{A.20}$$

In order to find values for A_1 and A_2, we impose the following condition:

$$\theta_{P,0} = \frac{T}{B - \gamma_L} \quad \rightarrow \quad A_1 + A_2 = 0 \quad \rightarrow \quad A_1 = -A_2. \tag{A.21}$$

The equality in (A.21) holds because A_L has no incentive to lie when $\theta_P = \frac{T}{B-\gamma_L}$. The second equality we exploit to find the solution to our difference equation is:

$$\theta_{P,1} = A_1 \left\{ \frac{2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)}}{B} \right\} + A_2 \left\{ \frac{2\gamma_L - B - 2\sqrt{\gamma_L(\gamma_L - B)}}{B} \right\} + \frac{T}{B - \gamma_L}, \tag{A.22}$$

After substituting $A_1 = -A_2$ in (A.22), we obtain:

$$A_1 = \frac{B}{4\sqrt{\gamma_L(\gamma_L - B)}} \left(\theta_{P,1} + \frac{T}{\gamma_L - B} \right), \quad A_2 = -\frac{B}{4\sqrt{\gamma_L(\gamma_L - B)}} \left(\theta_{P,1} + \frac{T}{\gamma_L - B} \right).$$

We use these expressions to rewrite (A.20):

$$\theta_{P,n} + \frac{T}{\gamma_L - B} = \frac{B\left(\theta_{P,1} + \frac{T}{\gamma_L - B}\right)}{4\sqrt{\gamma_L(\gamma_L - B)}} \left\{ \frac{1}{B} \left[2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)} \right] \right\}^n \tag{A.23}$$

$$+ \frac{B\left(\theta_{P,1} + \frac{T}{\gamma_L - B}\right)}{4\sqrt{\gamma_L(\gamma_L - B)}} \left\{ \frac{1}{B} \left[2\gamma_L - B - 2\sqrt{\gamma_L(\gamma_L - B)} \right] \right\}^n. \tag{A.24}$$

Take 2 cutoffs, $n - x$ and n. Let $Q = -T \equiv \frac{3}{4}\left((1 - \gamma_T)\theta_T - (1 - \gamma_L)\theta_L\right)$. After defining $H_+ \equiv 2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)}$ and $H_- \equiv 2\gamma_L - B - 2\sqrt{\gamma_L(\gamma_L - B)}$, we have:

$$\frac{\theta_{P,n-x} - \frac{Q}{\gamma_L - B}}{\theta_{P,n} - \frac{Q}{\gamma_l - B}} = \frac{\frac{B\left(\theta_{P,1} + \frac{T}{\gamma_L - B}\right)}{4\sqrt{\gamma_L(\gamma_L - B)}} \left\{ \left[\frac{1}{B}(H_+)\right]^{n-x} - \left[\frac{1}{B}(H_-)\right]^{n-x} \right\}}{\frac{B\left(\theta_{P,1} + \frac{T}{\gamma_L - B}\right)}{4\sqrt{\gamma_L(\gamma_L - B)}} \left\{ \left[\frac{1}{B}(H_+)\right]^{n} - \left[\frac{1}{B}(H_-)\right]^{n} \right\}}. \tag{A.25}$$

As we let n go to infinity to solve for the most informative partition, we obtain:

$$\frac{\theta_{P,n-x} - \frac{Q}{\gamma_L - B}}{\bar{\theta} - \frac{Q}{\gamma_l - B}} = \left[\frac{2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)}}{B} \right]^{n-x} \left[\frac{B}{2\gamma_L - B + 2\sqrt{\gamma_L(\gamma_L - B)}} \right]^n, \tag{A.26}$$

because $\lim_{n\to\infty}\left[\frac{2\gamma_L-B-2\sqrt{\gamma_L(\gamma_L-B)}}{B}\right]^{n-x}=0$. From (A.26), we obtain:

$$\theta_{P,n-x}-\frac{Q}{\gamma_L-B}=\left[\frac{B}{2\gamma_L-B+2\sqrt{\gamma_L\left(\gamma_L-B\right)}}\right]^x\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right), \tag{A.27}$$

which gives the cutoffs of the finest incentive-compatible partitions:

$$\theta_{P,n}-\frac{Q}{\gamma_L-B}=\left(\alpha_L\right)^{|n|}\left(\bar{\theta}-\frac{Q}{\gamma_L-B}\right), \quad with \quad n\in\{-\infty,....,+\infty\}, \tag{A.28}$$

where $\alpha_L=\frac{B}{2\gamma_L-B+2\sqrt{\gamma_L(\gamma_L-B)}}\in[0,1]$, with $B\equiv\frac{3}{4}\gamma_T+\frac{1}{4}\gamma_L$ and $Q\equiv\frac{3}{4}\left(\left(1-\gamma_T\right)\theta_T-\left(1-\gamma_L\right)\theta_L\right)$.

Finally, the quality of communication improves (α_L approaches 1) as γ_T tends to γ_L. ■

Proof of Lemma 5. From Section 3.2.2, when $\mathbf{g}=\{T,1\}$, P's expected payoff is given by (A.4) minus the cost of communication f. We start by distinguishing between the case in which $f=0$ and the case in which $f>0$.

1) Suppose first that the cost of communication is zero (i.e., $f=0$). Comparing (A.4) and (A.29) (where (A.29) is reported in Appendix B), P prefers *direct* communication to *indirect* communication, $\forall k_T$. When comparing (A.4) and (A.29), we have that, for $f=0$, the information loss caused by *indirect* communication negatively affects P's payoff from both units. To prove that P incurs a loss from D_T, note that the information loss implied by *indirect* communication leads to less adaptation and less external coordination within this unit. To prove that P incurs a loss from D_L, note that 1) $\mathbb{E}\left(\left(\mathbb{E}\theta_P\right)^2\right)\leq\frac{\bar{\theta}^2}{3}$, 2) the term that multiplies $\mathbb{E}\left(\left(\mathbb{E}\theta_P\right)^2\right)$ in (A.29) is negative when $k_T=0$, and 3) the sum of the two terms that multiply $\mathbb{E}\left(\left(\mathbb{E}\theta_P\right)^2\right)$ and $\frac{\bar{\theta}^2}{3}$ in (A.29) is equal to the term that multiplies $\frac{\bar{\theta}^2}{3}$ in (A.4). We can therefore conclude that, when $f=0$, the difference between P's expected payoffs from *direct* and *indirect* communication is positive and increases linearly with k_T.

2) As f increases and takes positive values, P's expected payoff from *direct* communication shifts downward, whereas P's expected payoff from *indirect* communication remains unaffected. As a consequence, because i) the difference between the two expected payoffs is positive when $f=0$, and ii) this difference increases with k_T, $\forall f$, for sufficiently high values of f there exists a threshold $\hat{k}\left(f,\cdot\right)\geq 0$, increasing in f, such that P's expected payoff is higher under *direct* than under *indirect* communication for values of $k_T\geq\hat{k}\left(f,\cdot\right)$.

Let us define as $\underline{f}$ the value of f such that $\hat{k}\left(\underline{f},\cdot\right)=0$.[31] For $f\leq\underline{f}$, our reasoning in part 1)

[31] The threshold $\underline{f}$ is therefore defined such that P's expected payoff from *direct* and *indirect* communication are the same when $k_T=0$.

continues to hold: P's expected payoff is higher under *direct* than under *indirect* communication, $\forall k_T$, proving part i in the lemma. For $f \in \left(\underline{f}, \overline{f}\right]$, from the reasoning presented in part 2), we have that P prefers *direct* (resp., *indirect*) to *indirect* (resp., *direct*) communication for $k_T \geq \hat{k}$ (resp., $k_T \in \left[0, \hat{k}\right)$). This proves part ii in the lemma. ■

Proof of Proposition 2. Consider first the case in which at least one of the conditions specified in parts a and/or b of Proposition 1 is met. Then, under complete information, a threshold $\underline{k}$ for k_T exists such that P chooses *Integration* for $k_T < \underline{k}$, and *Separation* for $k_T \geq \underline{k}$ (see Corollary 1).

Under incomplete information, if P chooses *Integration*, Lemmas 2 and 3 establish a) that she chooses *indirect* communication and b that her expected payoff equals that under complete information. Likewise, if P chooses *Separation*, from Lemma 5, she chooses *direct* communication. Therefore, because $f = \epsilon$ (with ϵ set arbitrarily small), her expected payoff closely approximates that under complete information (becoming identical for $f = 0$). Thus, under incomplete information, there exists a threshold $\tilde{k}$ for k_T such that P chooses *Integration* with *indirect* communication for $k_T < \tilde{k}$, and *Separation* with *direct* communication for $k_T \geq \tilde{k}$ (with $\tilde{k} = \underline{k}$ when $f = 0$).

Consider now the case in which none of the conditions specified in parts a and b of Proposition 1 hold. Then, under complete information, P chooses *Integration* for all k_T, as it yields a higher payoff for *both* units compared to *Separation*. Given Lemma 2, Lemma 3, and $f = \epsilon$ (with ϵ set arbitrarily small), the same reasoning applies to the case of incomplete information. Therefore, P chooses *Integration* with *indirect* communication for all k_T. ■

Appendix B Additional Computations

P's expected payoff under *Separation* and *indirect* communication, $U_P(T, 0)$, is as follows (see Online Appendix Section A for details):

$$\begin{aligned}
-\Bigg\{ & \frac{k_L}{2}\left[\left((1-\gamma_P) - \frac{3}{4}(1-\gamma_L)\right)^2 + \frac{1}{16}(1-\gamma_T)^2\right] \\
& + \frac{k_T}{2}\left[\left((1-\gamma_P) - \frac{3}{4}(1-\gamma_T)\right)^2 + \frac{1}{16}(1-\gamma_L)^2\right] \\
& + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\frac{1}{4}\left[(1-\gamma_L)^2 + (1-\gamma_T)^2\right]\Bigg\}\frac{\theta^2}{3} \\
& - \left\{\frac{k_L}{2}\left(\gamma_P - \frac{2}{3}\gamma_L\right)^2 + \frac{k_T}{2}\gamma_P^2 + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\frac{4}{9}\gamma_L^2\right\}\frac{\bar{\theta}^2}{3} \\
& - \mathbb{E}\Big(\mathbb{E}_T(\theta_P)\Big)^2\Bigg\{\left(\frac{k_L}{18} + \frac{k_T}{2}\right)\left(\frac{3}{4}\gamma_T + \frac{1}{4}\gamma_L\right)^2 + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\frac{4}{9}\left(\frac{3}{4}\gamma_T + \frac{1}{4}\gamma_L\right)^2 \\
& - 2\left(\frac{3}{4}\gamma_T + \frac{1}{4}\gamma_L\right)\left[\frac{k_L}{6}\left(\gamma_P - \frac{2}{3}\gamma_L\right) + \frac{k_T}{2}\gamma_P + \left(\frac{k_L}{4} + \frac{k_T}{4}\right)\frac{4}{9}\gamma_L\right]\Bigg\} - f,
\end{aligned} \tag{A.29}$$

where (with α_L defined in the proof of Lemma 4):

$$\mathbb{E}\left(\left(\mathbb{E}_T \theta_P\right)^2\right) = \frac{1}{4}\left[\left(1 + \frac{\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^3}\right)\bar{\theta}_P^2 - \left(1 - \frac{3\alpha_L\left(1-\alpha_L\right)}{1-\alpha_L^3}\right)\left(\frac{\underline{\theta}}{\gamma_L - \gamma_T}\right)^2 \times \left(\frac{\left(1-\gamma_L\right)^2}{3} + \frac{\left(1-\gamma_T\right)^2}{3} - \frac{\left(1-\gamma_L\right)\left(1-\gamma_T\right)}{2}\right)\right]. \tag{A.30}$$

Online Appendix

Organizing a Kingdom

Charles Angelucci (MIT Sloan) Simone Meraglia (Exeter) Nico Voigtländer (UCLA, NBER, and CEPR)

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 $\mathbb{E}\left((\mathbb{E}_T(\theta_P))^2\right)$, 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:

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

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

(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:

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

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 $\tilde{k}\left(f, \cdot\right)$ 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 $k_T < \tilde{k}\left(f, \cdot\right)$. 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 $\tilde{k}\left(f, \cdot\right)$ 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 $\tilde{k}\left(f, \cdot\right)$, 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:

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

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

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]

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

<u>*Gain from Direct Communication.*</u> 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 $m_L = \theta_P \ \forall \theta_P \in \left[-\bar{\theta}, \bar{\theta}\right]$. 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]

$$U_P = -\Bigg\{ \frac{k_L}{2} \Bigg[\left(\gamma_P - \frac{2}{3}\gamma_L\right)^2 \frac{\bar{\theta}^2}{3} \tag{S.26}$$

$$- \frac{1}{144}\left(\gamma_L + 3\gamma_T\right)\left(24\gamma_P - 17\gamma_L - 3\gamma_T\right) \frac{\bar{\theta}^2}{4} \left(1 + \frac{\alpha_L^{Sep}\left(1 - \alpha_L^{Sep}\right)}{1 - \left(\alpha_L^{Sep}\right)^3}\right) \Bigg]$$

$$+ \frac{k_T}{2} \left[\gamma_P^2 \frac{\bar{\theta}^2}{3} - \frac{1}{16}\left(\gamma_L + 3\gamma_T\right)\left(8\gamma_P - \gamma_L - 3\gamma_T\right) \frac{\bar{\theta}^2}{4} \left(1 + \frac{\alpha_L^{Sep}\left(1 - \alpha_L^{Sep}\right)}{1 - \left(\alpha_L^{Sep}\right)^3}\right) \right]$$

$$+ \left(\frac{k_L}{4} + \frac{k_T}{4}\right) \left[\frac{4}{9}\gamma_L^2 \frac{\bar{\theta}^2}{3} - \frac{1}{36}\left(\gamma_L + 3\gamma_T\right)\left(7\gamma_L - 3\gamma_T\right) \frac{\bar{\theta}^2}{4} \left(1 + \frac{\alpha_L^{Sep}\left(1 - \alpha_L^{Sep}\right)}{1 - \left(\alpha_L^{Sep}\right)^3}\right) \right] \Bigg\}.$$

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:

$$\Delta^{Sep} = \left[\frac{\bar{\theta}^2}{3} - \frac{\bar{\theta}^2}{4} \left(1 + \frac{\alpha_L^{Sep}\left(1 - \alpha_L^{Sep}\right)}{1 - \left(\alpha_L^{Sep}\right)^3}\right) \right] \times \tag{S.27}$$

$$\times \left\{ \frac{\gamma_L + 3\gamma_T}{4} \left(\frac{k_L}{2} \frac{24\gamma_P - 17\gamma_L - 3\gamma_T}{36} + \frac{k_T}{2} \frac{8\gamma_P - \gamma_L - 3\gamma_T}{4} + \frac{k_L + k_T}{4} \frac{7\gamma_L - 3\gamma_T}{9} \right) \right\} \geq 0.$$

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.

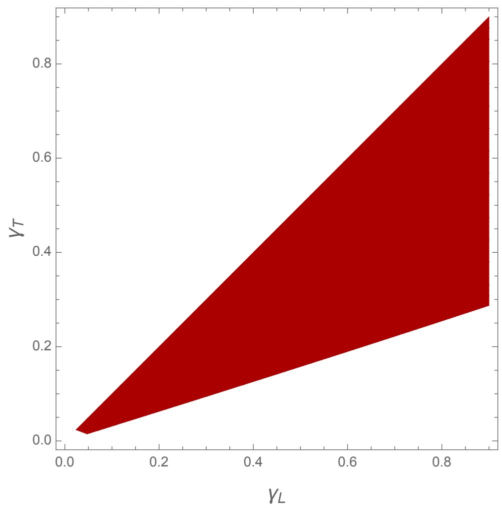
We therefore have two opposing forces: On the one hand, because information transmission is less accurate under *Separation*, all else equal, the *information effect* implies that there is greater scope for P to benefit from *direct* communication with A_T under *Separation* than under *Integration*. 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]

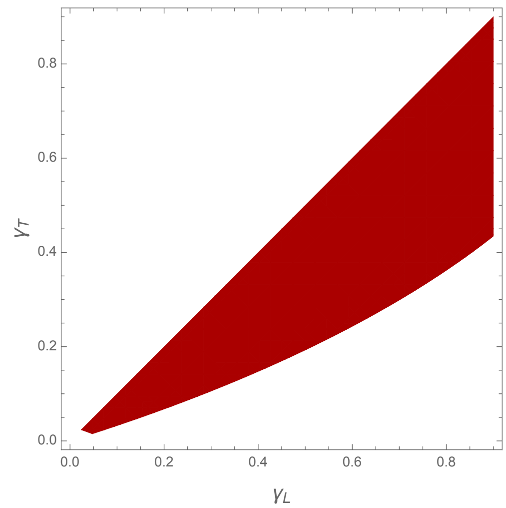
To build intuition for why sufficiently high values of γ_T are necessary for P to benefit more from *direct* communication with A_T as A_T gains control over more actions, consider the following extreme example (which, formally speaking, is not part of our analysis). Suppose P chooses between *Separation* 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

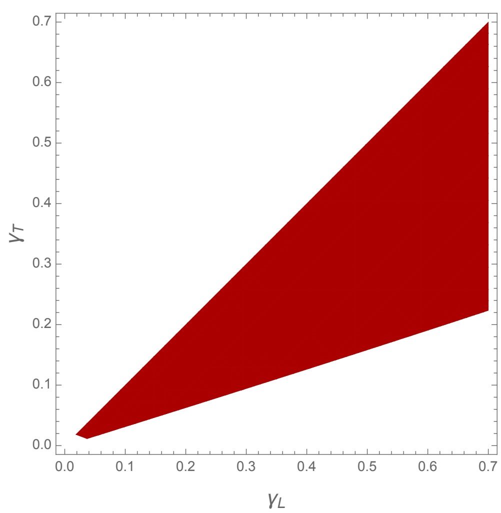
[11] The cost of communication f and the variance of θ_P are irrelevant when comparing Δ^{Int} to Δ^{Sep}.



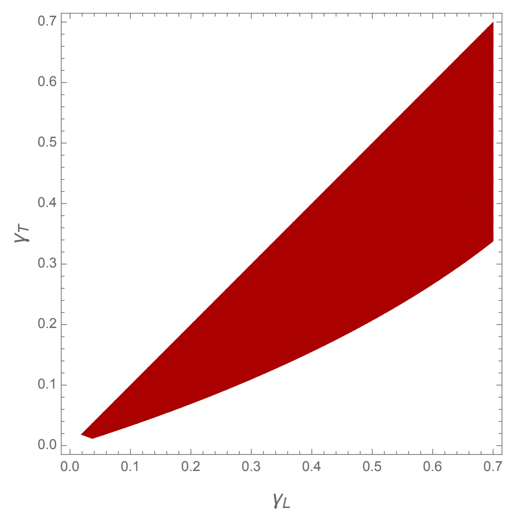
(a) Baseline γ_P and low k_T



(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:

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

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:

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

[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 $m_L^R = \theta_T$, $\forall \theta_T \in [\underline{\theta}, \overline{\theta}]$.*

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:

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

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:

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

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

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

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).

References

Alarcón Olivos, M. G. (2017). *El Papel de los Cabildos en el Primer Orden Colonial Peruano, 1529-1548*. Ph. D. thesis, Pontificia Universidad Católica del Perú. Facultad de Letras y Ciencias Humanas.

Alvarez, F. J. G. (1991). Algunas Reflexiones sobre el Cabildo Colonial como Institución. *Anales de Historia Contemporánea 8*, 151–161.

Amadori, A. (2023). Los Gobernadores del Río de la Plata y el Control de la Comunicación Atlántica a través de Buenos Aires.: El caso de Fray Horacio Genari, Procurador de Vilcabamba (1603-1604). *Prohistoria* (39), 1–17.

Angelucci, C., S. Meraglia, and N. Voigtländer (2022). How Merchant Towns Shaped Parliaments: From the Norman Conquest of England to the Great Reform Act. *American Economic Review 112*(10), 3441–87.

Arias, L. M. (2013). Building Fiscal Capacity in Colonial Mexico: From Fragmentation to Centralization. *The Journal of Economic History 73*(3), 662–693.

Ballard, A. and J. Tait (1923). *British Borough Charters 1216–1307* (1st ed.). Cambridge University Press.

Barriera, D. G. (2012). Tras las Huellas de un Territorio. In R. Fradkin (Ed.), *Historia de la Provincia de*

[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').

Buenos Aires. De la Conquista a la Crisis de 1820, Volume 2, Chapter 2, pp. 53–84. UNIPE, Editorial Universitaria.

Calvo, T. and G. Gaudin (2023). Manila and Their Agents in the Court: Long-Distance Political Communication and Imperial Configuration in the Seventeenth-Century Spanish Monarchy. *European Review of History: Revue Européenne d'Histoire 30*(4), 624–644.

Ciaramitaro, F. and L. D. Nardi (2019). El Régimen Fiscal de los Donativos en las Indias como Alternativa a las Asambleas Estamentarias Europeas: Una Reinterpretación del Imperio (Siglos XVI y XVII). *Mexican Studies/Estudios Mexicanos 35*(3), 300–326.

Domínguez-Guerrero, M. L. and J. M. López Villalba (2018). Una Institución Española en el Nuevo Mundo: El Cabildo de Cuzco en el Siglo XVI. *Colonial Latin American Review 27*(2), 153–177.

Escamilla, I. (2008). La Representación Política en Nueva España: Del Antiguo Régimen al Advenimiento de la Nación. *Historias 46*, 23–43.

Garfias, F. and E. A. Sellars (2021). From Conquest to Centralization: Domestic Conflict and the Transition to Direct Rule. *The Journal of Politics 83*(3), 992–1009.

Grafe, R. and A. Irigoin (2012). A Stakeholder Empire: The Political Economy of Spanish Imperial Rule in America. *The Economic History Review 65*(2), 609–651.

Hernández, S. T. S. (2020). *Building an Empire in the New World. Taxes and Fiscal Policy in Hispanic America during the Seventeenth Century*. Ph. D. thesis, Universidad Carlos III de Madrid.

Lohmann Villena, G. (1947). Las Cortes en Indias. *Anuario de historia del derecho español*, 655–662.

Lynch, J. (1992). The Institutional Framework of Colonial Spanish America. *Journal of Latin American Studies 24*(S1), 69–81.

Mauro, I. (2021). La Justificación del Envío de Legaciones ante la Corte por las Ciudades de la Monarquía Hispánica (Siglos XVI-XVII). *Prohistoria* (35), 223–251.

Mazín, Ó. (2013). Leer la Ausencia: Las Ciudades de Indias y las Cortes de Castilla, Elementos para su Estudio (Siglos XVI y XVII). *Historias 84*, 99–110.

Morales, M. A. (1979). El Cabildo y Regimiento de la Ciudad de México en el Siglo XVII – Un Ejemplo de Oligarquía Criolla. *Historia Mexicana*, 489–514.

Salway, P. (1981). *Roman Britain*. Oxford History of England. Clarendon Press, Oxford.

Tait, J. (1936). *The Medieval English Borough: Studies on Its Origins and Constitutional History* (1st ed.). Manchester University Press.