International Warfare, Cooperative Statebuilding, and European Parliaments

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Abstract

We study the strategic underpinnings of a common argument: pressure from international warfare contributed to the historical prevalence of parliaments in Western Europe. In our model, a ruler decides whether to delegate spending authority to a parliament, and a representative elite actor chooses whether to fund the ruler. Our new insights into cooperative statebuilding arise because we consider how a war threat affects the elite's demand for parliament. War threats can prevent parliament from arising by either decreasing or increasing the elite's leverage to withhold funding. The war threat can undercut a landed elite's option to refuse funding because it needs protection from invasion—thereby enabling the ruler to gain funds without submitting to parliamentary constraints. Alternatively, the war threat can strengthen a merchant elite's leverage too much, causing it to exit the polity and avoid funding an effort that is likely to fail.

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Perhaps the most important proposition in European state development is that "war made the state" (Tilly 1975, 42). Although scholars, including Charles Tilly himself, have offered many qualifications and conditionalities for this thesis, it is clear that warfare was one important component of the process by which modern nation-states arose in Western Europe. A corollary of the process of fiscal and military centralization was the emergence of parliaments and, centuries later, full democracy across the region. How did warfare affect the emergence of representative institutions?

The conventional argument is that competition from international warfare pressured rulers to find new sources of revenue. This, in turn, increased the bargaining leverage of societal actors to demand representation in return for providing resources (Bates and Lien 1985). Despite a default preference to rule autocratically, the dire need for resources often induced rulers to delegate power to representative bodies known as parliaments, estates, or diets. Among all the major Western European powers during the late Middle Ages and Early Modern periods, historians provide examples of war-finance needs inducing kings to call sessions of parliament (Myers 1975, 56; Finer 1997, 1026; Graves 2001, 10; Hoffman 2015). Statistical analyses of European states show that warfare is correlated with both the first parliament (Cox, Dincecco and Onorato 2019) and the frequency of parliamentary meetings (Stasavage 2011; Van Zanden, Buringh and Bosker 2012; Møller 2017; Abramson and Boix 2019).

Despite extensive empirical research, the theoretical foundations of the relationship between warfare and representation remain underdeveloped. We rethink and propose conditionalities for the conventional logic about cooperative statebuilding. In our formal model, an external war threat affects a ruler's choice over whether to delegate authority to a parliament, given the ruler's goal of raising revenues from a domestic elite. We partially recover the conventional cooperative logic: a stronger war threat indeed increases the ruler's willingness to take on parliamentary constraints in exchange for revenues. However, existing theories do not closely analyze how a war threat affects the *elite's demand* for parliament. We highlight novel channels through which war threats can *prevent* parliament from arising by either decreasing or increasing the elite's leverage to withhold funding. On the one hand, the war threat can undercut the elite's option to refuse funding because it needs protection from invasion—thereby enabling the ruler to gain funds without submitting to parliamentary constraints. On the other hand, the war threat can strengthen the elite's leverage too much, causing it to exit the polity and avoid funding an effort that is likely to fail. The difficulty of getting parliament in equilibrium in our baseline model is particularly striking because we do not explicitly

introduce coercive choices, although later we present an extension that enables us to address alternative arguments from the literature about warfare enhancing absolutism. We not only provide clearer theoretical foundations for many arguments about war promoting parliament, but also yield new implications for empirical cases, which we discuss following the model analysis.

In addition to research on historical warfare and parliaments in Europe, we also contribute to various strands of the formal theory literature. Existing models link warfare to beneficial fiscal capacity investments, either unconditionally (Besley and Persson 2011) or conditional on the nature of the wars (Hoffman 2015), the importance of finance (Gennaioli and Voth 2015), or the quality of bureaucratic institutions (Lee and Paine 2020). Other models analyze how governments use specific types of fiscal instruments, including borrowing (Slantchev 2012; Queralt 2019), trade policies (Queralt et al. 2015), and tax farming (Johnson and Koyama 2014). Fewer analyze the effect of external wars specifically on representation, and produce implications consistent with the conventional wisdom either when studying historical parliaments (De Magalhaes and Giovannoni 2019) or more recent episodes of franchise expansion (Ticchi and Vindigni 2008). We also differ from models in which democratization occurs because of threats from below (Acemoglu and Robinson 2006; Boix 2003) or intra-elite splits (Ansell and Samuels 2014). In our model, the elite actor is internally unified and cannot threaten the ruler. Instead, prospects for equilibrium parliament are determined by how the external threat affects the ruler's demand for funds and the elite's willingness to supply them with and without constraints on the government. This relates to models in which autocrats create parliaments to induce agents to make costly investments that benefit the regime (Gailmard 2017), although related institutions such as creating parties (Gehlbach and Keefer 2011) or allowing military generals to communicate (Myerson 2008) can yield qualitatively similar effects.[1] The idea that war can undercut landed elites' outside option relates to existing models of military recruitment and coups (McMahon and Slantchev 2015; Paine 2019). We differ by analyzing how the external threat affects incentives for the ruler to choose to tie her hands, and show that replacing the outside option of refusing with that of exiting produces the opposite effect of war on the elite's negotiating leverage.

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[1]Imposing constraints on the executive can also decrease incentives for subordinates to overthrow the ruler (Boix and Svolik 2013; Meng 2019), although we do not analyze that possibility here.

1 OVERVIEW OF KEY CONCEPTS AND FINDINGS

1.1 SETUP AND KEY TRADEOFFS

The two strategic actors in our formal model are a ruler and a representative elite agent, who interact in the shadow of an exogenous external invader. The strategic actors each receive an economic endowment that they decide how to allocate during the following sequential interaction. First, the ruler decides whether to delegate spending authority to parliament. Second, the elite actor decides whether to fund the government or exercise an outside option, either simply refusing to fund the ruler or exiting the state altogether. Third, after learning exactly how strong the invader is, the ruler decides whether to provide public goods—which is possible only if she has been funded—or to privately consume her economic endowment and any revenues from the elite. Nature moves last and determines whether the external invasion succeeds.

The players face the following tradeoffs. The ruler's most-preferred outcome is to get funding from the elite without delegating to parliament. Then, she can freely choose between public and private goods in her last move. Public goods entail both a security and economic component.[2] The security benefit consists of a greater probability of successfully resisting invasion. The economic effect is to replace the players' private endowments with a public good, which raises joint consumption increases but also causes wealth redistribution. The public good is split evenly between the ruler and elite, and therefore may lower the ruler's consumption relative to her original endowment. Combining the security and economic effects implies that, after observing a low invasion threat, the ruler prefers private consumption over public goods—which it can act upon if unconstrained. This highlights a moral hazard–type problem inherent for an elite that funds an unconstrained ruler: "the king may use resources for purposes of which the elite does not approve" (Rosenthal 1998, 69). This concern might lead the elite to withhold funding from an unconstrained government, which in turn might give the ruler an incentive to delegate to parliament.

For the elite, funding the government creates the possibility of receiving beneficial public goods. However, funding leaves it subject to predation by either the ruler (if she has not delegated to parliament) or the

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[2]It is natural to assume that public goods provide both economic and security benefits. Complementarities could arise because beneficial economic activities can also facilitate war funding (for example, the Bank of England funded transportation infrastructure and war needs in the eighteenth century), and internal security can itself improve economic productivity.

invader, which may cause the elite to exercise an outside option. We separately analyze two possibilities. The first is to refuse to fund: the elite stands pat with its initial wealth while still facing possible takeover by the outsider, but lacking the security and economic benefits of public goods. The second is to exit, which makes the elite's consumption safe from invasion, but sacrifices some of its initial wealth. We think of the refuse option as substantively relevant for nobles whose wealth is concentrated in land. By contrast, for merchants with more mobile wealth, the outside option is to exit.[3]

Two simplifying assumptions underlie our baseline model of the interaction between the ruler and parliament. The first is that the war is inherently defensive—the ruler and elite each consume nothing if the war is lost, giving them an equal stake in winning. The second is that delegation by the ruler implies fiscal supremacy for parliament. Following the main analysis, we present extensions relaxing each of these assumptions.

In equilibrium, the ruler delegates to parliament if and only if three conditions are met. The following introduces these three conditions and explains how the war threat affects each.

1.2   RULER WILLINGNESS

The only reason the ruler would delegate to parliament is to gain funding from the elite. However, even if delegation is necessary and sufficient for elite funding, a parliamentary equilibrium also requires the *ruler's willingness* constraint to be met. That is, the ruler must prefer a constrained but funded government over not receiving funding. Absent an external threat, the distributional consequences of providing public goods might dissuade the ruler from delegating to parliament, which would tie its hands to provide public goods. Only if the ruler's initial wealth is low enough will she delegate, as then the distributional consequences of providing public goods are less adverse. This creates a baseline, non-bellicose setting for understanding cooperative incentives for the ruler to impose parliamentary constraints.

The ruler's initial endowment reflects the degree of political centralization, which encompasses not only revenue sources directly controlled by the crown, but also "ordinary" sources of revenue that it could collect from society. The most obvious sources of revenue in medieval and early modern Europe were Crown lands and spoils from occupation of foreign territories, such as Spanish control of American silver and Swedish

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[3]The elite's three choices intentionally resemble Hirschman's (1970) distinction among loyalty (fund the government), voice (refuse), and exit, although we highlight a distinct tradeoff.

spoils from conquests during the Thirty Years' War. "Ordinary" revenues consisted of various taxes that did not require parliamentary consent, such as custom taxes and various direct taxes (e.g., the Spanish *alcabala*, a sales tax; the French *taille*, a land tax); royal monopolies; and profits from the administration of justice. Rulers could sell off parts of the state through tax farming, selling offices, allowing cities to purchase charter rights, and selling immunities and pardons. Other acts were in essence outright confiscation, such as debasing the currency, English purveyance, and the French *chambre de justice*. At least earlier in this period, European states were more fragmented (i.e., low ruler endowment) than more centralized polities in China and the Middle East (Stasavage 2016; Blaydes 2017; Dincecco and Wang 2018).

How does the strength of the war threat affect the ruler's willingness constraint? We recover one component of the conventional wisdom by showing that the threat indeed expands the range of conditions under which the ruler is willing to delegate. A stronger threat makes security concerns more pressing, making the security benefits of public good provision outweigh the distributional consequences in the ruler's decision calculus. External threats therefore increase the ruler's willingness to delegate to parliament—but this is just one of the three conditions that must be satisfied for delegation to actually take place.

1.3   WAR AND ELITE CREDIBILITY

The next two findings highlight important problems with the conventional wisdom about cooperative state-building. In particular, existing research dedicates little attention to understanding how the war threat affects the *elite's* willingness to provide funding with and without parliamentary constraints.

The *elite credibility* constraint requires the elite to have a credible threat to withhold funds if the ruler does not delegate to parliament. The elite credibility constraint holds when delegation is necessary for the ruler to receive funds. If elite credibility fails, then the ruler will not delegate to parliament because she can enjoy the intended benefit of delegation (receiving funding from elite) without incurring the cost (requirement to provide public goods even if the threat is weak). Absent an external threat, elite credibility holds only if the elite's initial wealth is sufficiently large, which creates a high opportunity cost to funding an unconstrained ruler.

A stronger war threat affects the elite credibility constraint in two ways. First, the war threat decreases the landed elite's expected utility to refusing relative to that of funding the government. Refusing to fund the ruler necessarily prevents the elite from enjoying the security benefit of public goods. The value of

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this security benefit increases in the severity of the invasion threat, which undermines the elite credibility constraint. This effect is restricted to landed elites because merchants' exit option is unaffected by the probability of invasion.

Second, a stronger war threat enhances the ruler's fear of external takeover, which increases the probability that even an unconstrained ruler will choose to provide public goods. Thus, in effect, the war threat causes an unconstrained ruler to behave as if she were constrained, undercutting elite credibility. This effect applies to both types of elite.

Overall, one mechanism through which stronger war threats undermine prospects for delegation to parliament is *undercutting* the leverage of a landed elite to demand representation. We illustrate this with comparisons between France and Spain, where wars undercut elite credibility, and England, where they did not.

1.4 WAR AND ELITE WILLINGNESS

The *elite willingness* constraint is that the elite must prefer to fund the ruler in the best-case scenario, namely when she has delegated to parliament. In other words, delegation must be sufficient for the elite to fund the ruler. If elite willingness fails, then the ruler will not delegate, as there is no benefit to doing so. A landed elite is always willing to fund the ruler, for the reasons just described: even though the invasion threat diminishes its expected utility to funding the government, it undercuts the outside option of refusing even more.

However, the effect differs for the merchant elite. Intriguingly, the same mobile wealth that enables it to demand parliament even in the face of a strong invader can also cause it to exit rather than to fund what is likely a losing effort—even if the ruler provides public goods for sure. A very strong war threat causes the state to break apart by violating the willingness condition for the merchant elite. Thus, another mechanism through which stronger war threats undermine prospects for parliament is *bolstering* the leverage of a merchant elite to demand parliamentary representation *but by too much*. We compare examples of a high exit option in a moderate threat environment where parliament arose (e.g., early British North America) to examples where the exit option broke apart territorial states, e.g., when cities instead formed trading leagues.

One form of the exit option is to move/hide capital or physically flee. Bates and Lien (1985) discuss how the mobility of capital affected the bargaining leverage of elites when negotiating taxation with kings in early modern Europe. Although trade taxes could be "highly lucrative," they exhibited the shortcoming that "they could be easily avoided" (55). Dincecco and Onorato (2018) discuss the option for non-landlords to flee the countryside for the city during war. Cities provided a safe harbor and were rarely sacked, because they tended to be easier to defend and the gains from sacking cities were relatively low. Urban dwellers could move their wealth from centralized storage locations to private vaults run by goldsmiths in town, or could themselves move to new urban locations altogether and switch their allegiance to another polity. Mobile assets coupled with the small average size of European states in the early modern era made fleeing a viable possibility, as European sovereigns faced competition and did not want to lose taxable commerce to neighboring states (Cox, Dincecco and Onorato 2019, 5) Alternatively, merchants could exit by forming mutual-protection organizations beyond princely rule, such as trading leagues.

1.5   War and Coercive Statebuilding

To isolate *cooperative* incentives for elite funding and parliamentary delegation, we do not include in the baseline model a strategic choice for the ruler to coerce the elite. In essence, this creates a "hard case" for showing that war threats do not necessarily promote parliaments, given the more common contention in the literature that, by raising the stakes of the game, war can cause rulers to deliberately coerce and override their parliaments to collect funds directly (Mann 1986; Downing 1993). We consider an extension in which the ruler has a third option (besides delegating to parliament or not) to coerce the elites for funds. We do find that incentives to use coercion arise in the presence of a moderate invasion threat. However, these incentives are only the decisive factor preventing delegation to parliament in a narrow range of cases. Often when the invasion threat is strong, delegation is unsustainable even in the absence of coercion, as a strong invader undercuts the elite's credible threat to exercise its outside option (landed elite) or willingness to fund the ruler (merchant elite).

2 A MODEL OF COOPERATIVE STATEBUILDING

We model a strategic interaction between two players, a ruler R and a distinct elite actor E. We normalize total endowed wealth to 1 and let $\theta_R \in (0, 1)$ denote the proportion held by R, leaving $1 - \theta_R$ for E.

1. Parliament. R moves first and chooses whether or not to delegate policy choices to parliament. This choice does not directly affect anyone's payoff, but does constrain R's final action described in step 4.

2. Elite's choice. E decides whether or not to fund the government. Funding entails paying taxes and supplying troops to fight, and moves the game to step 3. Otherwise, E exercises its outside option, moving the game to step 5.

We consider two distinct types of outside option, each corresponding to a different type of elite class.[4] In the first case, the elite's outside option is to *refuse* to fund the government, without moving its wealth out of the ruler's dominion. When the elite exercises the refusal option, its wealth is safe from expropriation by the ruler, but remains at risk from the outsider. A landed elite, whose wealth cannot be easily liquidated or moved, would have refusal as its outside option.

The second outside option we model is to *exit* the ruler's dominion. By exiting, the elite keeps its wealth safe from both the ruler and from the external threat. However, exiting comes at a cost: an elite that exits only keeps a proportion $\sigma \in (0, 1)$ of its initial wealth. The outside option of exiting best corresponds to a merchant elite, whose wealth is more mobile than that of a landed elite.

3. Outsider's strength realized. After R has chosen whether to delegate to parliament and E has chosen whether to fund, Nature draws and reveals $\theta_X \geq 0$, the strength of the outsider threat. The distribution of θ_X is common knowledge throughout the game, but its realized value only becomes known just before R decides whether to provide public goods.

Throughout the text, we assume $\theta_X \sim U[\psi - \epsilon, \psi + \epsilon]$, where $\psi > \epsilon > 0$.[5] The parameter ψ represents the outsider's expected strength, so a greater value of ψ corresponds to a greater *ex ante* expectation about the magnitude of the external threat. The parameter ϵ represents the amount of prior uncertainty about θ_X. We sometimes refer to the limiting case of no external threat, which corresponds to $\psi = \epsilon = 0$ (i.e., $\theta_X = 0$ for

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[4]In Appendix A.11, we analyze the hybrid case in which the elite can choose either outside option.

[5]In Appendix A.15, we show that our main results hold up for a broad class of distributions.

certain).

4. Public good choice. Having observed the draw of the outsider's strength, θ_X, R decides whether to provide public goods or to privately consume its own rents. This choice is nontrivial only if R chose not to delegate to parliament in step 1 and E chose to provide funds in step 2. If R delegated, then at this point she must choose to provide public goods. If E did not provide funds, then R's only choice now is to consume her initial endowment.

Public goods encompass distinct security and welfare components under the premise that broadly productive activities taken by a government should enhance both. R and E commonly value the welfare component of public good provision at α. We assume these benefits are not so great that a player would forego consuming the total initial wealth in favor of the public good: $\alpha < 1$. We also assume public goods raise E's consumption: $\alpha > 1 - \theta_R$.

5. Outsider takeover. Nature makes the final move in the game, determining whether or not an exogenous external actor overthrows the regime. We assume the domestic actors' military capability vis-a-vis the external threat derives from their initial economic endowments. Specifically, if E chose not to fund the regime or if R chose to expropriate E, then the probability of surviving the external threat is $p_L(\theta_X) \equiv \frac{\theta_R}{\theta_R + \theta_X}$.[6] By contrast, and highlighting the security benefit of public good provision, if E funded the government and R provided public goods, then the probability of regime survival is higher because E's coercive endowment contributes to the common defense: $p_H(\theta_X) \equiv \frac{\theta_F}{\theta_F + \theta_X}$. We assume $\theta_F > 1$ (i.e., greater than the sum of initial endowments) to reflect the idea that successful internal cooperation may produce economies of scale in the provision of security. An important feature of the model is that the relative security benefit of public good provision is greater when the outside threat is stronger, as illustrated in Figure 1.

Throughout the main text, we assume $\theta_R < \alpha \cdot \theta_F$.[7] The main implication of this assumption is that if R does not delegate to parliament but is nonetheless funded, then R will provide public goods if the outsider turns out to be sufficiently strong (θ_X large). It also implies that if the outsider's expected strength, ψ, is large enough, then R will be willing to delegate to parliament at the outset of the game.

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[6]In Appendix A.15, we show that our main results hold up under alternative specifications of the survival probability functions.

[7]Imposing this assumption allows us to reduce tedious discussion of corner cases. In Appendix A.14, we outline how our main results would be modified if this condition were relaxed.

Figure 1: Stronger external threat makes internal cooperation more important

(a) Probability of successful resistance.

(b) Ratio of probabilities: p_H/p_L.

Note: $\theta_R = 0.75, \theta_F = 2.25$.
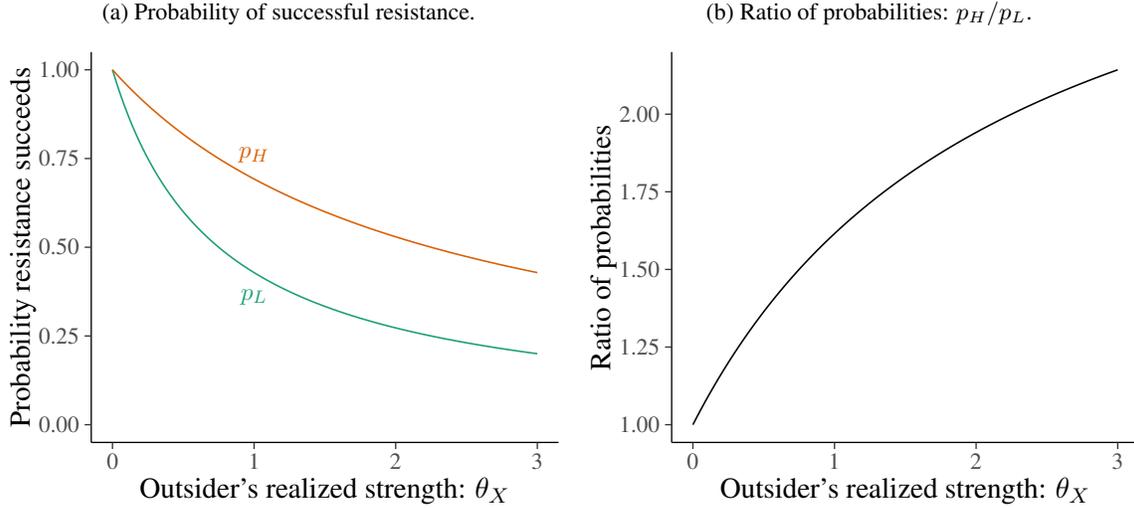
Consumption. Suppose no external takeover occurs. If E funds and R provides public goods, then they each consume α. If E funds and R expropriates, then R consumes 1 and E consumes 0. In case E does not fund, R consumes θ_R, and E's consumption depends on the nature of its outside option. Specifically, E consumes $1 - \theta_R$ if its outside option is to refuse, whereas it consumes $\sigma \cdot (1 - \theta_R)$ if its outside option is to exit.

If instead external takeover does occur, then both players consume 0 except in one circumstance: if E's outside option is to exit and it exercises that option, then its consumption equals $\sigma \cdot (1 - \theta_R)$ independent of whether external takeover occurs. Figure 2 displays the complete game tree for the interaction.

3   ANALYSIS

3.1   RULER'S WILLINGNESS TO DELEGATE TO PARLIAMENT

We first analyze the ruler's equilibrium behavior. When we exclusively consider the ruler's incentives, we largely recover the conventional logic about the relationship between war threats and parliamentary rule. Stronger threats increase the ruler's willingness to trade representation for revenues, opening up an important channel for parliamentary constraints to emerge in equilibrium. But we also show how very strong war threats can undermine parliamentary supremacy: a ruler who faces a strong enough threat will

Figure 2: Game Tree
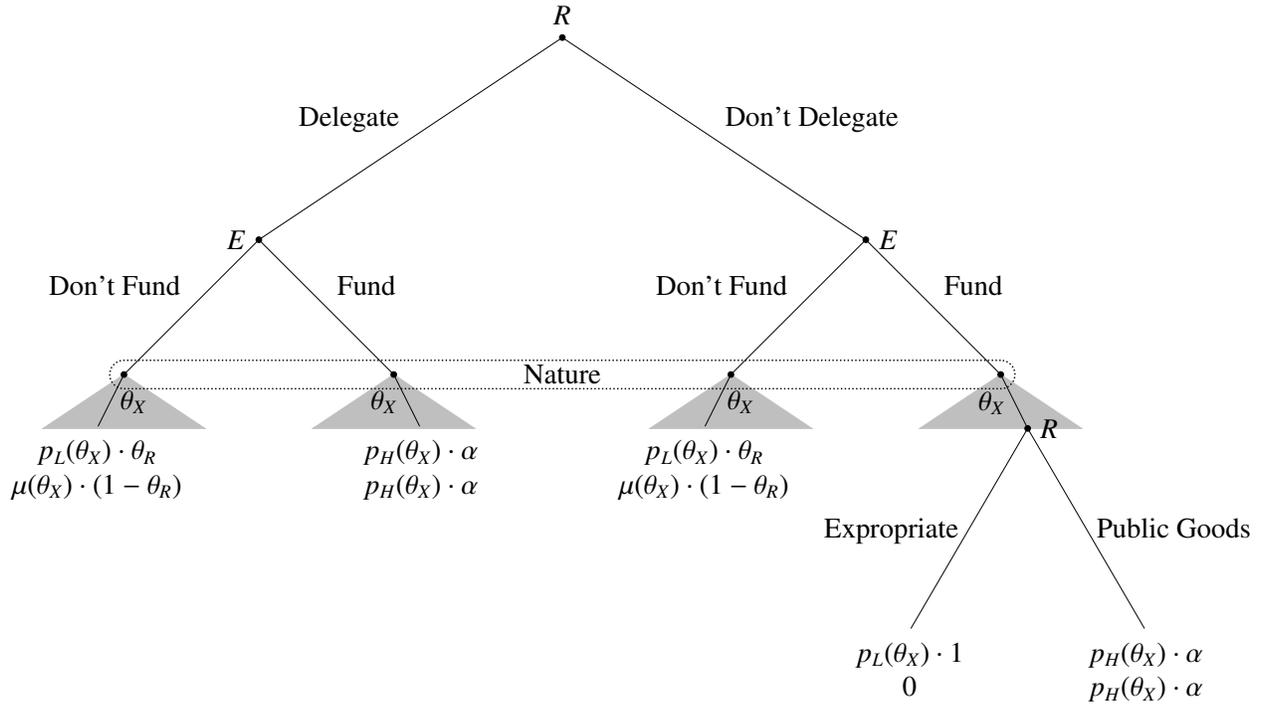
Outside option is refuse (landed elite): $\mu(\theta_X) = p_L(\theta_X)$.
Outside option is exit (merchant elite): $\mu(\theta_X) = \sigma$.

provide public goods for sure. When an unconstrained ruler acts identically to a constrained ruler, delegation is unnecessary.

The ruler chooses at the outset of the game whether to delegate to parliament. Delegation reduces the ruler's flexibility in case the elite decides to provide funds, but may make the difference for whether the elite will do so. Regardless of the ruler's choice here, if the elite chooses not to fund, then only the ruler's strength will be available to fend off the external threat, and the ruler will consume θ_R if resistance against the outsider succeeds. The ruler's expected utility from not being funded is therefore

$$\mathbb{E}\left[U_R(E \text{ doesn't fund})\right] = \bar{p}_L(\psi) \cdot \theta_R. \tag{1}$$

In this expression, $\bar{p}_L(\psi)$ denotes the *ex ante* probability of successful resistance against the outsider in the absence of public good provision when the outsider's expected strength equals ψ,

$$\bar{p}_L(\psi) = \mathbb{E}\left[p_L(\theta_X)\right] = \int_{\psi-\epsilon}^{\psi+\epsilon} \frac{p_L(\theta_X)}{2\epsilon} \, d\theta_X.$$

We define $\bar{p}_H$ analogously.

Delegation to parliament benefits the ruler only insofar as it may induce the elite to provide funds. If the ruler delegates and parliament funds, then the ruler has no choice but to provide public goods, ultimately consuming α as long as the external threat fails:

$$\mathbb{E}\left[U_R(R \text{ delegates}, E \text{ funds})\right] = \bar{p}_H(\psi) \cdot \alpha. \tag{2}$$

In combination with Equation 1 above, this gives us a condition for when the ruler would be willing to delegate if doing so were pivotal for receiving funds. In order to be willing to delegate, the ruler must weakly prefer facing parliamentary constraints over being unable to provide public goods. We summarize this as the *ruler willingness constraint*.

Ruler willingness constraint: $\qquad \bar{p}_H(\psi) \cdot \alpha \geq \bar{p}_L(\psi) \cdot \theta_R. \tag{3}$

The more wealth the ruler initially possesses, the less likely she is to be willing to delegate to parliament, as θ_R raises both the probability of successful resistance and the ruler's consumption conditional if the invasion fails. On the other hand, the ruler willingness constraint becomes easier to meet as the military returns to scale from cooperation (θ_F) and the value of public goods (α) increase.

So far we have characterized the ruler's payoffs from delegating to parliament and from failing to receive funds. The final possibility is that the ruler does not delegate but receives funds anyway. In the absence of parliamentary constraints, the ruler may provide public goods or consume all wealth privately—whichever benefits her more. This choice will be a function of θ_X, the realized value of the outsider's strength.[8] Formally, the condition for an unconstrained ruler to prefer public good provision over expropriation is $p_H(\theta_X) \cdot \alpha \geq p_L(\theta_X) \cdot 1$, which is equivalent to

$$\frac{p_H(\theta_X)}{p_L(\theta_X)} \geq \frac{1}{\alpha}. \tag{4}$$

This leads to our first result, illustrated in Figure 3: a stronger threat of invasion increases an unconstrained

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[8]Notice the difference with the initial choice to delegate, which can depend only on ψ, the *ex ante* expected value of the distribution from which θ_X is drawn.

ruler's propensity to provide public goods.

Lemma 1 (Invasion threats substitute for delegation)**.** *Assume that R does not delegate to parliament and that E funds the government. It is a best response for R to provide public goods if and only if $\theta_X \geq \hat{\theta}_X$, where $0 < \hat{\theta}_X < \infty$.*

Figure 3: *Ex ante* probability of public good provision by a funded, unconstrained ruler
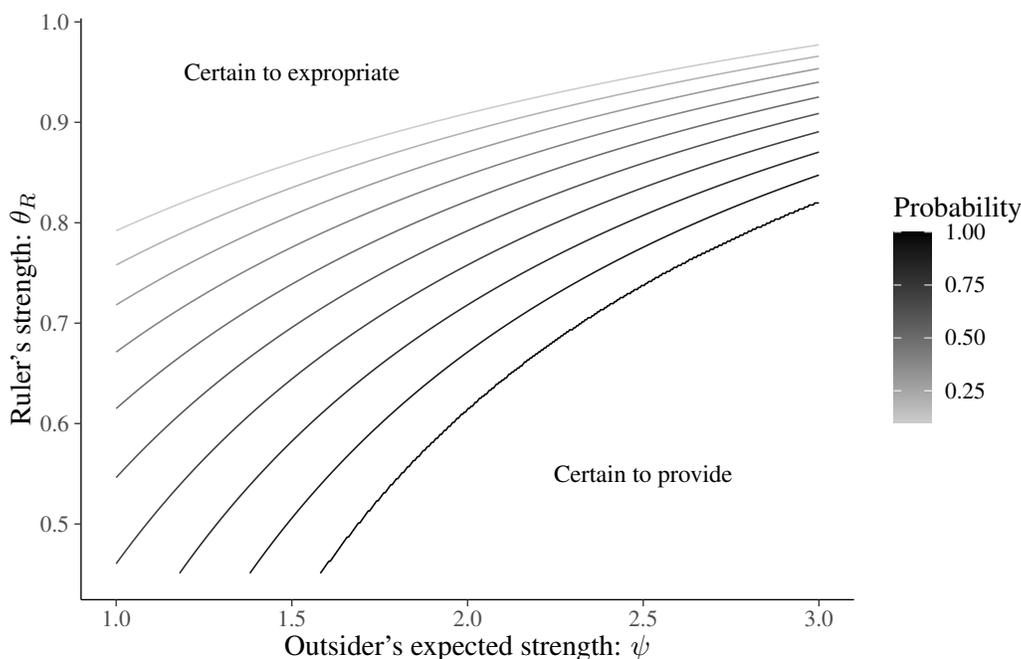
This and all subsequent figures use these parameters, except where otherwise noted: $\alpha = 0.55$, $\sigma = 0.65$, $\theta_F = 2.25$, $\epsilon = 1$.

When there is no chance of an external takeover, the ruler faces a choice between certain consumption of total initial wealth, or certain consumption of the public good. Per our assumption that $\alpha < 1$, the ruler prefers to expropriate under these circumstances.[9] As the invader's strength grows, the value of each option becomes worse, as the ruler's consumption is no longer a sure thing. But this is precisely when the provision of security makes the most difference, as illustrated above in Figure 1. The threshold $\hat{\theta}_X$ is the point where the security benefit of public good provision outweighs the loss in consumption conditional on resisting invasion.

Lemma 1 highlights a substitution effect that previous scholarship does not emphasize. By increasing the

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[9]If instead $\alpha > 1$, then the interaction would be strategically uninteresting: the ruler would always prefer to supply public goods, meaning there is no commitment problem and thus no need to call a parliament.

ruler's need for security, a stronger invasion threat raises the probability that the ruler will use its funds responsibly even without parliamentary constraints. We return to this logic below, in the analysis of the elite's decision to fund the government, to show that delegation to parliament becomes unnecessary when the external threat is great enough.

Knowing now that an unconstrained ruler will provide public goods if and only if the outsider is strong enough, we can characterize the ruler's *ex ante* expected payoff from being funded after choosing not to delegate to parliament. In this case, the ruler expects to consume $p_L(\theta_X) \cdot 1$ if the realized value of θ_X is low and to consume $p_H(\theta_X) \cdot \alpha$ if θ_X is high:[10]

$$\mathbb{E}\left[U_R(R \text{ doesn't delegate}, E \text{ funds})\right] = \int_{\psi-\epsilon}^{\hat{\theta}_X} \frac{p_L(\theta_X)}{2\epsilon} \, d\theta_X + \int_{\hat{\theta}_X}^{\psi+\epsilon} \frac{p_H(\theta_X)}{2\epsilon} \cdot \alpha \, d\theta_X. \tag{5}$$

We can now state the general conditions for an equilibrium in which the ruler delegates to parliament. The first condition is *elite credibility*: the elite must not provide funds if the ruler does not delegate. If funding were assured either way, the ruler would prefer to remain unconstrained. The second condition is *elite willingness*: the elite must provide funds if the ruler delegates.[11] When elite credibility and elite willingness are both satisfied, delegation to parliament is pivotal to whether the ruler receives funds. From there, the final condition for a delegation equilibrium is ruler willingness, characterized above in Equation 3.

Proposition 1. *In equilibrium:*

(a) R will not delegate to parliament if doing so is unnecessary to generate funding (elite credibility fails).

(b) R will not delegate to parliament if doing so is insufficient to generate funding (elite willingness fails).

(c) R may delegate to parliament if doing so is necessary and sufficient to generate funding. In this case:

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[10]The following expression assumes $\hat{\theta}_X \in [\psi - \epsilon, \psi + \epsilon]$. It would equal $\bar{p}_H(\psi) \cdot \alpha$ if $\hat{\theta}_X < \psi - \epsilon$ and $\bar{p}_L(\psi)$ if $\hat{\theta}_X > \psi + \epsilon$.

[11]Technically, R is indifferent if E never funds, as the outcome is the same irrespective of her delegation decision. If there were a small but positive cost to calling a parliament, as is plausible, then R would strictly prefer not to do so. For ease of exposition, we instead assume R has a lexicographic preference not to delegate to parliament.

- *If $\theta_R \leq \alpha$, then R is willing to delegate to parliament regardless of ψ.*

- *If $\theta_R > \alpha$, then R is willing to delegate to parliament if and only if $\psi \geq \hat{\psi}$, where $0 < \hat{\psi} < \infty$.*

Figure 4: Ruler's willingness to call parliament
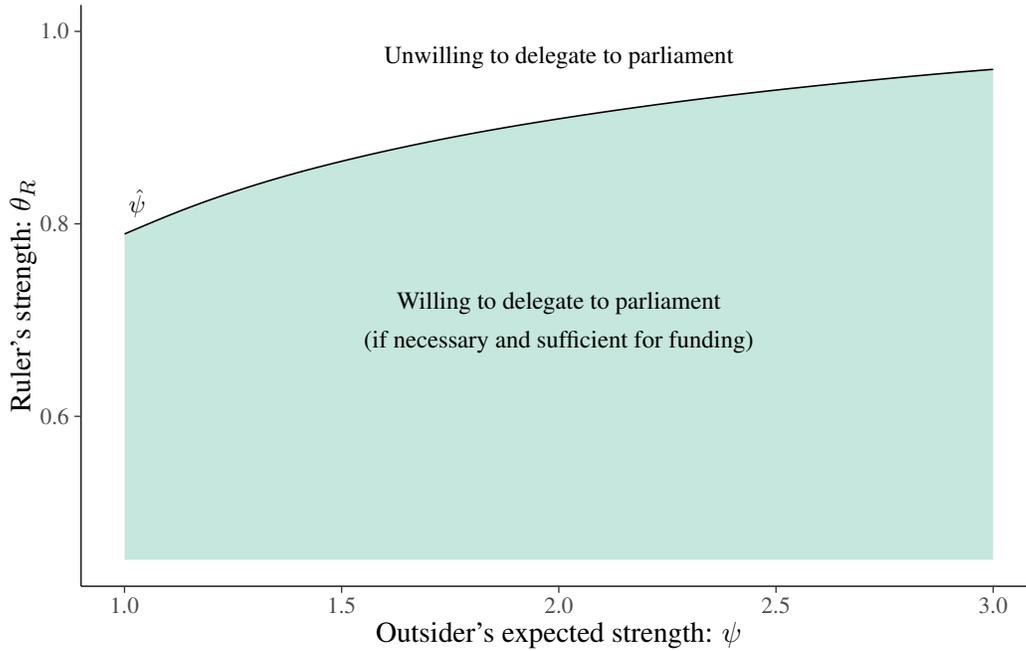
Part c of Proposition 1 highlights two important comparative statics for funding. The first relates to the ruler's endowed rents. If the ruler's endowed rents are low enough that her consumption would benefit from public goods provision even in the absence of an external threat, then the willingness constraint holds trivially. However, a ruler with greater endowed rents may be unwilling to tie her own hands because of the anticipated adverse distributional consequences of public goods provision.

Second, this result confirms a key element of the conventional logic of cooperative statebuilding: stronger external threats promote the ruler's incentive to delegate to parliament, as long as doing so is pivotal for receiving funds. This result is driven by a simple but important property of the contest against the invader: the incremental addition of E's military capability makes the most difference when the outsider is strongest, as illustrated above in Figure 1. In choosing to call a parliament and constrain itself in order to receive funding, R is trading off flexibility for additional security against the external threat. This tradeoff is most attractive when E's military support makes the most difference—i.e., when the outsider is expected to be relatively strong. Figure 4 illustrates how the ruler's willingness to call a parliament varies as a function of

the ruler's initial wealth and the outsider's *ex ante* expected strength.

3.2 ELITE DEMAND FOR PARLIAMENT

We now analyze the elite's demand for parliamentary constraints. When will the elite require the ruler to delegate fiscal authority as a condition to receive funds? By incorporating elite demand for parliament into our model, we fill a crucial gap in the existing literature on cooperative statebuilding. We uncover novel channels through which war threats undercut parliament in equilibrium, contrary to the conventional expectation. These channels differ depending on the type of elite. For a landed elite, which is dependent on the ruler for security even if it refuses to fund her, a strong external threat makes parliament unnecessary—the elite will prefer to fund the ruler even if she does not delegate fiscal authority. For a merchant elite, however, a strong war threat means delegation to parliament is insufficient to garner funds, as the elite would rather exit than risk losing everything in war.

If the ruler delegates to parliament and the elite supplies funds, then public good provision is assured. This means resistance against the outsider is elevated from p_L to p_H, and the elite will consume the public good α as long as resistance succeeds. The elite's payoff in this case is

$$\mathbb{E}\left[U_E(R \text{ delegates, } E \text{ funds})\right] = \bar{p}_H(\psi) \cdot \alpha.$$

We say delegation is sufficient for funding if the elite would rather fund a ruler who has delegated than exercise its outside option, which is either refuse or exit. This is summarized in the *elite willingness constraint*.

Elite willingness constraint: $\qquad \bar{p}_H(\psi) \cdot \alpha \geq \mathbb{E}\left[U_E(\text{outside option})\right].$ $\qquad\qquad$ (6)

If the ruler does not delegate to parliament, the elite still has the option to fund her. It is risky to so, as a ruler who has not delegated to parliament will expropriate funds unless the outsider turns out to be quite strong (Lemma 1). Let $\tilde{p}_H(\psi)$ denote the *ex ante* probability that, if funded, an unconstrained government chooses to provide public goods and then successfully resists the outsider:

$$\tilde{p}_H(\psi) = \Pr(\theta_X \geq \hat{\theta}_X) \cdot \mathbb{E}[p_H(\theta_X) \,|\, \theta_X \geq \hat{\theta}_X].$$

The elite consumes the public good α if the ruler decides not to expropriate and the outsider fails to take over, so the elite's payoff from funding an unconstrained ruler is

$$\mathbb{E}\left[U_E(R \text{ doesn't delegate}, E \text{ funds})\right] = \tilde{p}_H(\psi) \cdot \alpha.$$

The *elite credibility constraint* is satisfied when the elite has a credible threat to exercise its outside option if the ruler does not delegate:

$$\textbf{Elite credibility constraint:} \qquad \mathbb{E}\left[U_E(\text{outside option})\right] \geq \tilde{p}_H(\psi) \cdot \alpha. \tag{7}$$

As with the elite willingness constraint, the exact form of the elite credibility constraint depends on whether the elite's outside option is to refuse or to exit.

There is an important tension between the willingness and credibility constraints. If even an unconstrained ruler is very likely to provide public goods, so that $\tilde{p}_H(\psi) \approx \bar{p}_H(\psi)$, then it will be nearly impossible to satisfy both constraints simultaneously. The elite's threat to withhold funds will lack credibility, and thus delegation will not happen in equilibrium, unless there is a nontrivial chance of expropriation by an unconstrained ruler. Consulting Figure 3, this rules out delegation equilibria with a strong outsider (high ψ) and weak ruler (low θ_R), as then even an unconstrained ruler is certain to provide public goods if funded.

Lemma 2. *If $\psi \geq \hat{\theta}_X + \epsilon$ and the elite willingness constraint* (6) *holds strictly, then the elite credibility constraint* (7) *fails.*

One immediate consequence of this result is that there generally cannot be an equilibrium with delegation to parliament if $\psi \geq \hat{\theta}_X + \epsilon$; i.e., if an unconstrained ruler would be certain to provide public goods. This finding, of course, severely undercuts the conventional claim that strong war threats promote cooperative statebuilding.

3.2.1   Refusal as Outside Option: Landed Elites

For landed elites, whose wealth cannot easily be moved out of the ruler's dominion, the outside option is to refuse. By refusing to fund the ruler without actually moving its endowment, the elite runs the risk of expropriation by the outsider, but otherwise gets to consume its full endowment:

$$\mathbb{E}\left[U_E(\text{outside option})\right] = \bar{p}_L(\psi) \cdot (1 - \theta_R).$$

Importantly, a landed elite is dependent on the ruler for security against the external threat even if it does not fund her.

If the ruler chooses to delegate to parliament, then funding the ruler carries no downside for a landed elite. By doing so, the elite raises its consumption from its endowment, $1 - \theta_R$, to the public good, α, in case the external threat is defeated. It also raises the *ex ante* probability of successful resistance from $\bar{p}_L$ to $\bar{p}_H$. The elite willingness constraint is thus trivial for a landed elite.

Lemma 3. *If E's outside option is to refuse, the elite willingness constraint holds for all ψ.*

By contrast, the credibility constraint for a landed elite is closely related to the strength of the war threat. There are two complementary mechanisms by which the war threat affects the elite's threat to refuse to fund if the ruler does not delegate to parliament. The first channel of influence is the security of elite consumption. If there is no external threat, then an elite that refuses to fund is still assured full consumption of its initial endowment. But as the war threat grows, the elite's consumption becomes less secure, increasing its demand for security provision. Holding fixed the likelihood of public good provision by the ruler, a stronger war threat undermines elite credibility.

Lemma 4. *Assume that R does not delegate to parliament and, if funded, chooses public goods with probability $\Pr(\text{public goods}) \in [0, 1]$ for all θ_X. Then as the war threat ψ increases, it becomes more difficult for the elite credibility constraint to hold.*

This is only a partial equilibrium result, as the probability of public good provision is not in fact fixed. We

have already shown that a strong war threat increases the likelihood that an unconstrained ruler will choose to provide public goods (Lemma 1). This is the second channel by which a stronger war threat raises the relative attractiveness of funding an unconstrained ruler. Because war threats increase the demand for security and decrease the chance of expropriation, a stronger outsider tends to undermine elite credibility.

Lemma 5. *If E's outside option is to refuse, the elite credibility constraint holds if and only if $\psi \leq \psi^*_{refuse}$, where $\hat{\theta}_X - \epsilon < \psi^*_{refuse} < \hat{\theta}_X + \epsilon$.*

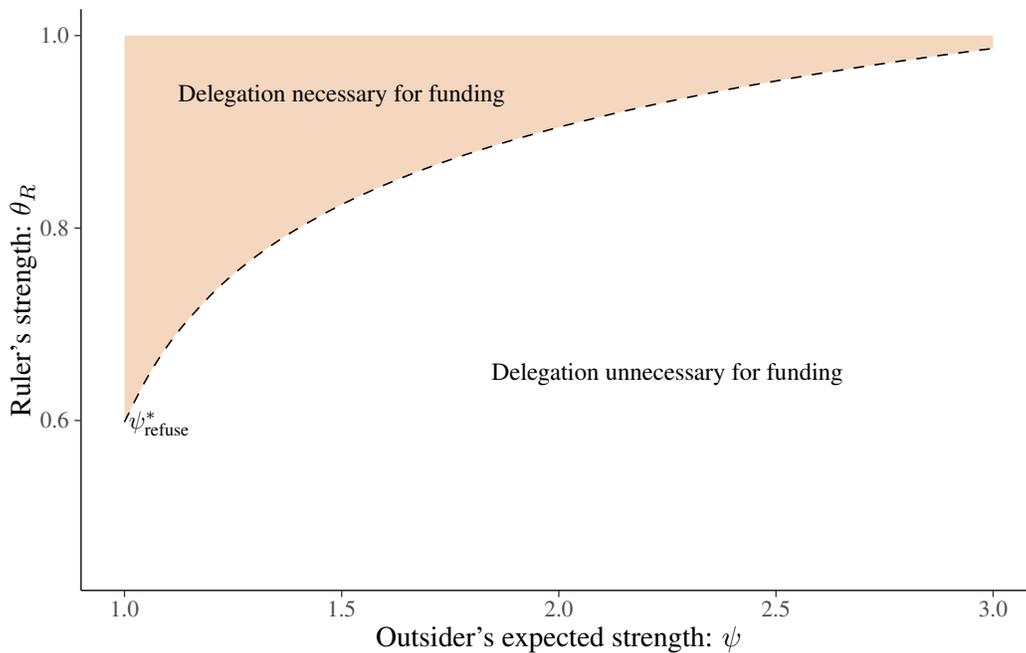**Figure 5: Credibility constraint for a landed elite**

Figure 5 illustrates when the credibility constraint is satisfied as a function of the war threat's strength and the ruler's initial endowment (which, again, is inversely related to the elite's endowment). One result evident from this figure is that a strong outside threat undermines the elite credibility constraint. Holding the ruler's strength fixed (the y-axis), increasing the war threat (moving from right on the x-axis) eventually results in a failure of elite credibility. The ruler's initial endowment is another important determinant of whether the elite credibility constraint holds. Notice that if we hold the war threat fixed (x-axis) and increase the ruler's strength (moving up on the y-axis), the elite credibility constraint becomes more likely to hold. The value of funding an unconstrained ruler decreases with θ_R because stronger rulers are more likely to expropriate rather than provide public goods. Meanwhile, ruler strength has countervailing effects on the elite's payoff

from refusing, as it increases the probability of successful resistance but decreases the elite's consumption value. To sum up, the most favorable conditions for the credibility constraint with a landed elite are a weak war threat and a strong ruler, placing us in the upper-left portion of Figure 5.

The two conditions for an equilibrium with delegation to parliament are that delegation is pivotal to the decision to fund and that the ruler is willing to accept constraints in exchange for funding. Because the willingness constraint holds trivially for a landed elite, delegation is pivotal for the funding decision if and only if the credibility constraint holds. As we have just shown, this is true when the outsider is sufficiently weak. The second condition—the ruler's willingness to accept parliamentary constraints—works the other way, as a stronger external threat promotes ruler willingness (Proposition 1). At most, therefore, there is an interval of external threat strength for which delegation to parliament will occur in equilibrium. If the threat is too weak, the ruler will be unwilling to accept constraints; if it is too strong, the ruler can forego delegation and still receive funding from a landed elite.

Proposition 2. *Assume E's outside option is to refuse. If $\theta_R \leq \alpha$, there is an equilibrium in which R delegates to parliament if and only if $\psi \leq \psi^*_{refuse}$. Otherwise, if $\theta_R > \alpha$, such an equilibrium exists if and only if $\hat{\psi} \leq \psi \leq \psi^*_{refuse}$.*

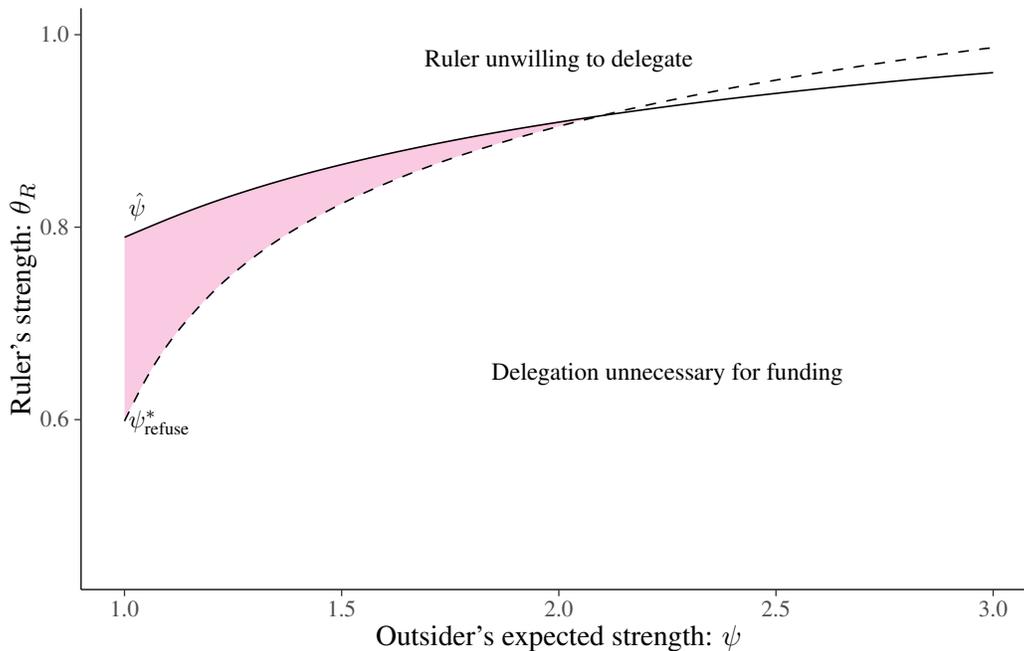**Figure 6: Delegation equilibrium with a landed elite**

Figure 6 illustrates the conditions for an equilibrium with delegation to parliament when the elite's outside option is to refuse. The most favorable conditions for such an equilibrium are when the ruler's endowment, θ_R, is moderate and the outsider's expected strength, ψ, is low. If the ruler's initial endowment is too low or the outsider's expected strength is too great, then the constraints imposed by delegation to parliament do too little to change the ruler's behavior if funded, so delegation is unnecessary for funding. But if the ruler's initial endowment is too great, then the benefits of delegation are not worth the cost to the ruler, who would rather take a gamble on consuming her initial endowment than commit to public good provision.

By accounting for the elite's incentives to fund the ruler, we find some important exceptions to the usual logic of cooperative statebuilding. At the margins, a greater external threat may decrease the likelihood that a ruler submits to parliamentary constraints on her use of state revenues. Precisely because a strong external threat increases the ruler's willingness to supply public goods, it also decreases the elite's demand for meaningful parliamentary constraints. Facing a strong threat, the elite need not attach conditions to funds handed over to the ruler, as the ruler is overwhelmingly likely to use those funds to advance the public good of security anyway. So while we should still expect a strong external threat to promote internal cooperation to defeat it, that cooperation may not produce the same kind of institutional arrangements as when delegation is necessary to secure funding.

While a delegation equilibrium cannot exist once the outsider becomes sufficiently strong, there are some conditions under which a small increase in outsider strength promotes delegation to parliament. If elite credibility is satisfied but the ruler willingness constraint just barely fails, then a small increase in ψ would cause delegation to parliament to become the equilibrium outcome. Thus, war threats may promote cooperative statebuilding at certain margins, even though very strong threats ultimately discourage delegation.

3.2.2 Exit as Outside Option: Merchant Elites

The value of the outside option is distinct for merchant elites, whose wealth is more liquid than that of landed elites. Unlike in the previous case, merchant elites' wealth is not subject to expropriation by the outside threat in case they decide to exercise their outside option, as doing so presumably takes their wealth outside the territory that is under threat.[12] The cost of exiting is that a merchant elite expects to lose (or

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[12]In practice, exit by a merchant elite may change the value of invading the territory, which in turn may alter an outsider's decisions about the strength of an invasion attempt. We do not model this possibility here,

leave behind) a fraction $1 - \sigma$ of its initial wealth:

$$\mathbb{E}\left[U_E(\text{outside option})\right] = \sigma \cdot (1 - \theta_R).$$

Consequently, the outside option value for a merchant elite is not a function of the outsider's expected strength, ψ, unlike in the case of a landed elite.

For a merchant elite, the question of willingness—whether it is better to fund a constrained ruler than to exit—is no longer trivial. When the external threat is weak, the logic is the same as for a landed elite: successful resistance is nearly assured, and the elite would rather consume the public good than its own relatively small initial endowment, so delegation is sufficient to make funding preferable. However, this logic breaks down as the outsider grows stronger. If the external threat is great enough, then resistance is likely to fail even with the boost from the elite's funding, so the expected utility of funding the government becomes infinitesimal. At this point, the elite would rather exit and consume σ of the initial endowment than almost certainly end up with nothing. Consequently, for a merchant elite, the willingness constraint holds if and only if the outsider is weak enough.

Lemma 6. *If E's outside option is to exit, then the elite willingness constraint holds if and only if $\psi \leq \psi_{exit}^{\dagger}$, where $\psi_{exit}^{\dagger} > 0$.*

This result illustrates an important difference in the strategic logic for the landed elite and merchant elite cases. For a landed elite, as the external threat becomes stronger, the expected value of funding a constrained ruler goes down, but so does that of the outside option. Because the importance of security cooperation increases with the outsider's strength, as illustrated above in Figure 1, funding the ruler becomes more attractive relative to the refusal option as ψ increases. But for a merchant elite with mobile wealth, internal security only affects the expected utility of funding the ruler. The decrease in the payoff from funding the ruler due to an increase in the outsider's strength is not offset by a concomitant decrease in the value of the outside option, unlike for a landed elite.

Here we also observe a distinct mechanism causing the conventional logic of cooperative statebuilding to fail. A strong external threat may induce an elite with mobile wealth to exit, as even the promise of

leaving it as a consideration for future work with a strategic outside actor.

Figure 7: Willingness constraint for a merchant elite
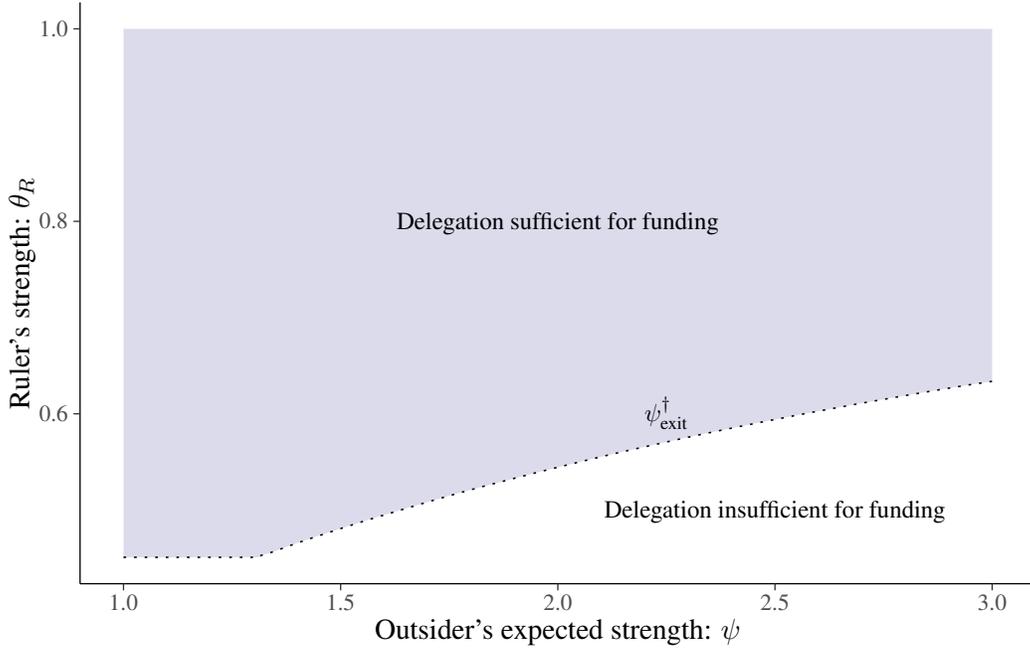
public goods and the attendant security benefit is insufficiently attractive. Hence a delegation equilibrium might break down due to the elite's unwillingness to supply funds even if the ruler submitted to stringent parliamentary constraints. This dynamic can upset the possibility of delegation only in the case of an elite with mobile wealth, as this is precisely when the elite's demand for delegation would be highest if the elite's only option were to remain in place.

Mobile wealth also changes the nature of the elite credibility condition, which holds when the elite would rather exercise its outside option than fund an unconstrained ruler. For a merchant elite, the value of the outside option, $\sigma \cdot (1 - \theta_R)$, is independent of the external threat's strength. Meanwhile, the value of funding an unconstrained ruler depends primarily on $\tilde{p}_H(\psi)$, the probability that the ruler provides public goods and subsequently resists the external threat. This probability is ∩-shaped, peaking at $\psi = \hat{\theta}_X + \epsilon$, due to the countervailing effects of the war threat: it makes the ruler more likely to provide public goods, but decreases the probability of successful resistance.[13] Consequently, if the outside option is preferable to funding a ruler who chose not to delegate even at the peak point, then it must be preferable regardless of the outsider's strength. This is true if the proportion of wealth retained by an exiting elite, σ, is great enough. Otherwise, there is an interval around the peak where elite credibility fails.

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[13]See Figure A.1 in the Appendix.

Lemma 7. *Assume E's outside option is to exit. If $\sigma \geq \sigma^* \equiv (\bar{p}_H(\hat{\theta}_X + \epsilon) \cdot \alpha)/(1 - \theta_R)$, then the elite credibility constraint holds for all ψ. Otherwise, if $\sigma < \sigma^*$, then the elite credibility constraint holds if and only if $\psi \notin (\psi^*_{exit}, \psi^\dagger_{exit})$, where $\hat{\theta}_X - \epsilon < \psi^*_{exit} < \hat{\theta}_X + \epsilon < \psi^\dagger_{exit}$.*

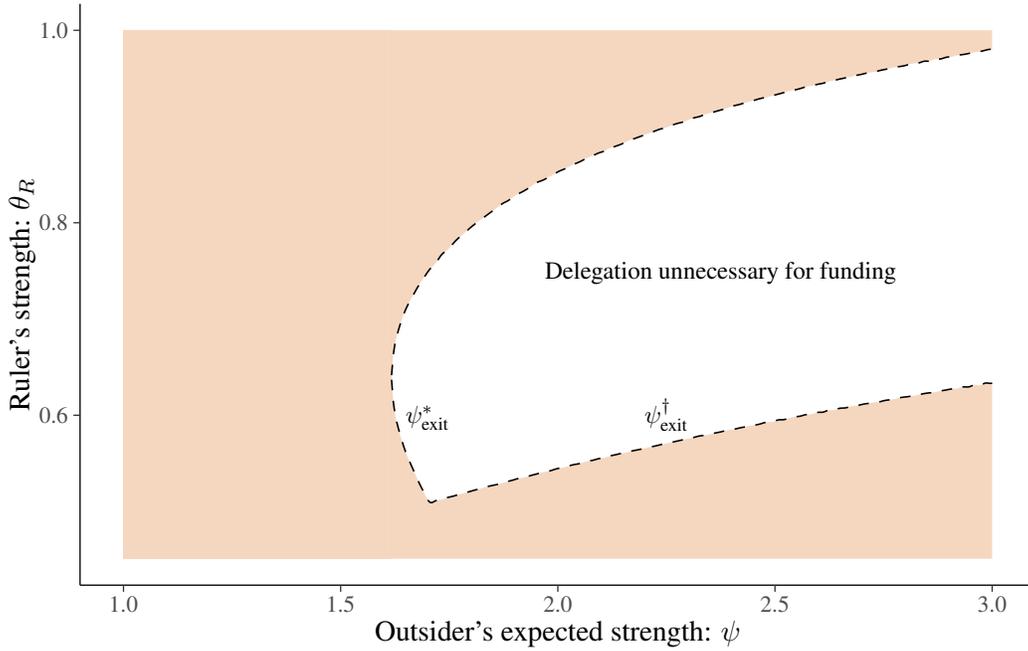**Figure 8: Credibility constraint for a merchant elite**

Figure 8 illustrates the credibility constraint for a merchant elite. At low levels of ruler strength (bottom portion), elite credibility always holds. At higher levels of ruler strength, as the war threat increases (left to right along the x-axis), elite credibility goes from holding, to failing, to holding again—there is a gap. This contrasts with the landed elite case, where a stronger war threat always pushes elite credibility toward failing. In that case, we saw two mechanisms responsible for the negative relationship between ψ and elite credibility. One of these, the elite's demand for security, works the opposite way for a merchant elite. Holding fixed the likelihood of public good provision, a stronger war threat now makes the outside option more attractive, as the consumption loss from exiting is independent of the outsider's strength. However, the other mechanism, the probability of public good provision, still works the same here—a stronger war threat increases the value of funding an unconstrained ruler insofar as it decreases the chance of expropriation. These countervailing effects produce the gap observed in Figure 8, with the elite's demand for security becoming dominant as ψ grows large.

Putting the elite constraints together with the ruler's willingness constraint, we again see that an equilibrium with delegation to parliament exists for at most an interval of values of the outsider's expected strength.

Proposition 3. *If E's outside option is to exit, then there is an equilibrium in which R delegates to parliament if and only if $\underline{\psi} \leq \psi \leq \overline{\psi}$, where*

$$
\underline{\psi} = \begin{cases} 0 & \theta_R \leq \alpha, \\ \hat{\psi} & \theta_R > \alpha, \end{cases} \qquad \overline{\psi} = \begin{cases} \psi^*_{exit} & \sigma < \sigma^*, \\ \psi^\dagger_{exit} & \sigma \geq \sigma^*. \end{cases}
$$

Figure 9: Delegation equilibrium with a merchant elite
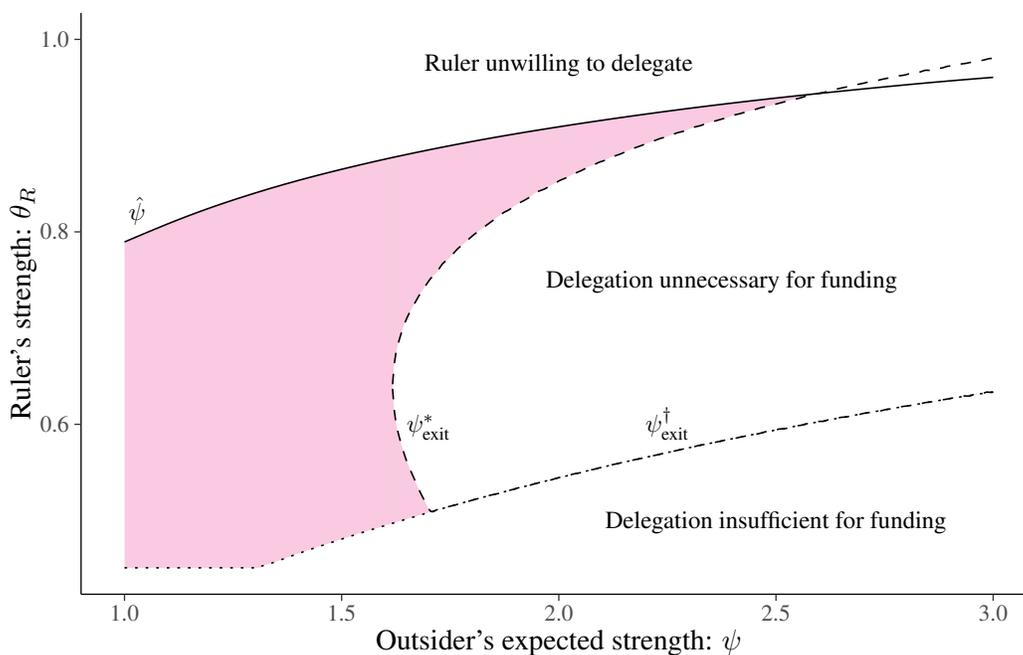
We again see a partial conformance with the conventional logic. As long as the ruler would rather consume her endowment than the public good, an equilibrium with delegation to parliament requires sufficient strength on the part of the outsider. However, by introducing the elite's demand for parliament into our analysis, we show that an equilibrium with delegation is also unsustainable if the outsider's strength is too high. When exiting is relatively unattractive, the first constraint to bind is elite credibility; otherwise, it is elite willingness.

4 EXTENSIONS

4.1 WAR AND COERCIVE STATEBUILDING

The core model intentionally omits a strategic option for the ruler to coerce the elite. The mechanisms that undermine the relationship between warfare and parliament in our model, based on elite credibility and willingness, are thus distinct from coercive options that rulers can pursue to avoid delegation. In other words, it creates a hard case for war not to cause parliament in equilibrium. However, coercion is part of the statebuilding process anywhere. Famous examples in early modern Europe include the Prussian and French kings during the Thirty Years' War using their armies to crush resistance to taxation and to establish fiscal absolutism. Although the dominant thrust of the historical statebuilding literature is that warfare contributes to parliament, historians and political scientists alike have discussed how in some cases, warfare contributed to absolutism (Mann 1986; Downing 1993; Ertman 1997; Hoffman 2015).

We extend the model to allow the ruler to choose between coercive and cooperative statebuilding at the outset of the game. When the ruler chooses whether to delegate or not in the baseline model (step 1), we introduce a third option: coercion. By coercing, the ruler makes a costly initial investment in her military capabilities, giving her the ability to expropriate the domestic elite's wealth while also increasing the likelihood she will successfully resist the external threat. The cost of coercion is denoted κ, where $0 < \kappa < \theta_R$, and it yields for the ruler a fraction ω of the elite's endowment. If the leader coerces, then there is no possibility of voluntary elite funding or public good provision; the game proceeds immediately to the external conflict (step 5). We assume the military advantage due to coercion is less than that of successful cooperative statebuilding, making the probability of resistance $p_C(\theta_X) \equiv \frac{\theta_C}{\theta_C + \theta_X}$, where $\theta_R < \theta_C < \theta_F$. Following our earlier convention, we let $\bar{p}_C(\psi) = \mathbb{E}[p_C(\theta_X)]$.

By introducing coercion, we essentially add another constraint on the ruler's incentives that must be satisfied in order for delegation to parliament to prevail as an equilibrium. We call the *ruler cooperation constraint* the requirement that the ruler prefer delegation over coercion:

**Ruler cooperation constraint:** $\quad \bar{p}_H(\psi) \cdot \alpha \geq \bar{p}_C(\psi) \cdot [\theta_R - \kappa + \omega(1 - \theta_R)]$.

This condition holds trivially if the cost of coercion is high, $\kappa > \omega + (1 - \omega)\theta_R - \alpha$, as then both the value

of consumption and the chance of successful resistance are greater if the ruler delegates.

Like the ruler willingness constraint in the baseline model, the cooperation constraint becomes easier to satisfy when the war threat is stronger. When there is little to no outside threat, the dominant incentive is the possibility of additional consumption from expropriating the domestic elite. For the ruler, the main benefit of delegation—relative to both sheer coercion and cooperation without delegation—is the boost in strength against the outsider, and the importance of this benefit increases with the outsider's power.

Figure 10: Ruler's equilibrium choice when coercion is available
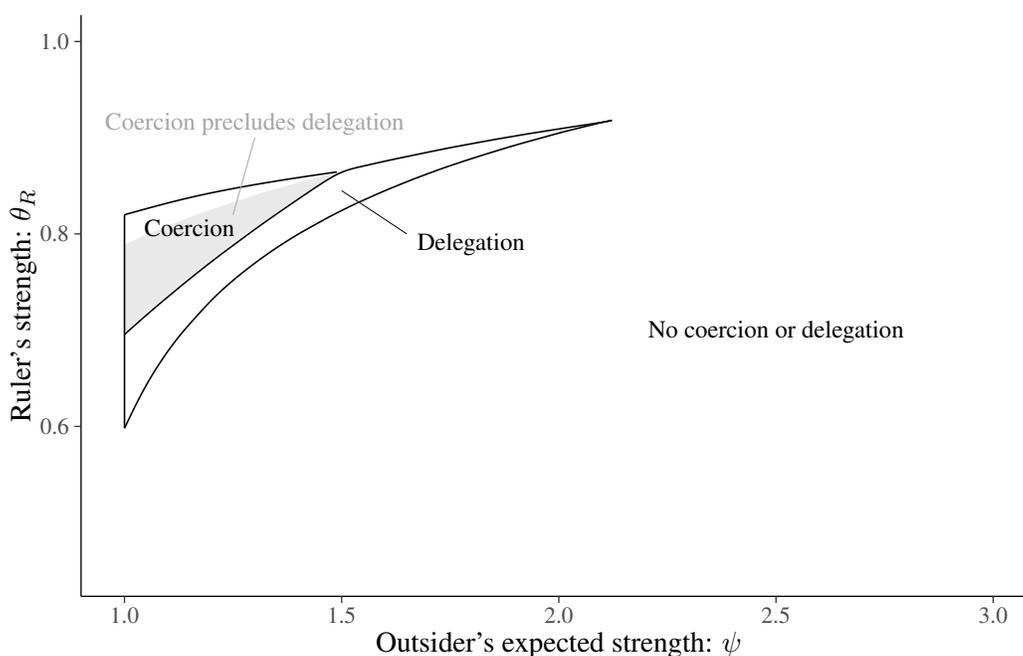
Note: $\kappa = 0.25, \omega = 0.7, \theta_C = 1.25$. *Outside option is refuse. Other parameters same as Figure 6. Shaded region represents parameters where the ruler would choose delegation if coercion were not available.*

Viewed in isolation, the coercion constraint appears to conform to the traditional logic of war making the state, as coercion is preferable to delegation unless there is a strong war threat. However, when we consider elite incentives, we see that the introduction of a coercive option makes the most difference when the war threat's strength is in a middle range. Figure 10 illustrates the equilibrium choices by a ruler who has the option to coerce or else seek funds from a landed elite. When the war threat is strong (right-hand side of the figure), the ability to use coercion is immaterial to the equilibrium. In this case, the ruler can get her first-best outcome—receiving funds without submitting to parliamentary constraints—regardless of the coercion option. On the other hand, for weak war threats ($\psi < \hat{\psi}$, top-left of the figure), the introduction

of coercion does not erode parliamentary strength, as the leader would not have been willing to delegate anyway. Only for middling values of ψ (shaded region) do we see coercion overtake delegation as the equilibrium outcome.

4.2   Offensive Wars

In the baseline model, we simplify by assuming that the actors suffer equally from losing a war (unless the elite exits). Thus, as also indicated by the nomenclature "invader," we conceive of the war as defensive in its aims. By contrast, the ruler and elite are more likely to value war outcomes differently if the war is offensive (Levi 1988; Kiser and Linton 2002; Cox, Dincecco and Onorato 2019). This is in part because offensive wars entail a moral hazard problem. Elites usually fund the bulk of the costs regardless, but the ruler reaps most of the spoils of winning (Rosenthal 1998).

To model offensive wars, we extend the baseline model with additional parameters. We focus on the case when the elite's outside option is to refuse, as this is when the nature of the war makes the most difference for elite incentives. First, we allow for the ruler and elite to each retain some of their domestic consumption even if they lose the conflict with the outsider. This reflects the possibility that the stakes of conflict might be partially or even primarily abroad, leaving only a fraction of their initial wealth at risk. Formally, let $\phi \in [0, 1]$ denote the proportion of consumption that each domestic actor retains even if the war is lost. This parameter is our primary measure of the war's offensiveness, as greater values mean less of the state's wealth is at stake in the conflict.

Second, we introduce the possibility of expropriating from the outsider in case of victory in the international conflict. Let $\beta \geq 0$ denote the total amount of additional consumption available to R and E if they win the conflict. The baseline model represents the special case of this extension with $\phi = 0$ (all domestic consumption at stake) and $\beta = 0$ (no expropriation from the outsider).

Finally, we assume that the ruler keeps all of the international prize if she wins the conflict unassisted, but that she must share a fraction of it with the elite if she received funds and provided public goods. Going back to our conceptualization of public goods as a bundled security and consumption benefit, this represents the idea that benefiting from elite support may involve incorporating elites into the state's security forces, thereby giving them bargaining power to demand some of the spoils of war. Formally, we assume that a fraction $\pi \in [0, 1]$ of the international prize β goes to the elite in case of victory following public goods

provision, with the remainder going to the ruler.

Our main finding in this extension is that the elite's bargaining power is stronger when the external conflict is offensive in nature. This is easiest to see when we hold fixed the chance that an unconstrained ruler provides public goods. The outside option of refusal is more attractive when the war is more offensive, as then less of the elite's wealth is at stake in the conflict, making the elite less dependent on the ruler for security. At the same time, the elite's expected payoff from funding the ruler also rises with the offensiveness of the conflict, due to the greater security of its public good consumption. The first of these effects dominates the second as long as there is a meaningful chance of expropriation (high enough that the elite would prefer refusal even in the absence of an outside threat). Therefore, holding the ruler's behavior fixed, it should be easier for the elite credibility constraint to hold when facing an offensive war.

Lemma 8. *In the model with offensive wars, assume that R does not delegate to parliament and, if funded, chooses public goods with probability $\Pr(public\ goods) \leq \frac{1-\theta_R}{\alpha}$ for all θ_X. Then as the offensiveness of the external conflict ϕ increases, it becomes easier for the elite credibility constraint to hold.*

The offensiveness of the conflict also affects the ruler's incentives and decisions. In a purely defensive conflict, the ruler's incentive to provide public goods increases with the outsider's strength (Lemma 1). In that case, losing the conflict is catastrophic for the ruler, making her more willing to trade off consumption for security by providing public goods. This logic changes when the war is offensive—losing the war is no longer catastrophic when a portion of the ruler's domestic consumption is assured in either case. In the extreme case of a purely offensive conflict ($\phi = 1$), the condition for the ruler to prefer public goods provision after learning the outsider's strength is

$$\alpha + p_H(\theta_X) \cdot (1 - \pi) \cdot \beta \geq 1 + p_L(\theta_X) \cdot \beta.$$

If the ruler faces a very strong outsider, she is unlikely to win the external conflict either way, and would strictly prefer consuming all domestic wealth over consuming the public good. The ruler is therefore certain to expropriate if the conflict is purely offensive and the outsider is quite strong. The same logic carries over even to partially offensive conflicts.

Lemma 9. *In the model with offensive wars, the probability of public good provision by an unconstrained ruler decreases with the offensiveness of the external conflict ϕ. If $\phi > 0$ and ψ is sufficiently large, an unconstrained ruler is certain to expropriate.*

This result implies that the *ex ante* probability of public good provision is low when the war is partially or totally offensive and the external actor is strong. Returning to the elite's incentives, this means that the necessary condition of Lemma 8—namely, a high probability of expropriation by an unconstrained ruler— will always be satisfied under these circumstances. With an offensive war and a strong opponent, the elite's bargaining power is at its highest; its threat to withhold funding if the ruler does not delegate is certain to be credible. This is in stark contrast with the purely defensive case analyzed in the baseline model, in which outsider strength undercut the elite's credibility rather than bolstering it.

Proposition 4. *In the model with offensive wars, if $\phi > 0$, then the elite credibility constraint holds for all sufficiently large ψ.*

4.3 PARLIAMENT WITHOUT FISCAL SUPREMACY

The most important service of parliaments in early modern Europe was financial assistance to the crown (Finer 1997, 1026; Graves 2001, 192-5). However, parliaments ranged considerably across time and space in their functions and powers. Most could refuse to grant taxes for undesired policies, but especially early on, most imposed only limited constraints on the ruler.[14] Large kingdoms posed particular logistical difficulties for parliaments to hold rulers accountable (Stasavage 2011). We extend our baseline model to allow for the possibility that parliament may fail to constrain even a ruler who has agreed to delegate,[15] and recover qualitatively similar implications for the relationship between war and parliament.

In the extended model, there is a fixed probability that the ruler who delegates will nonetheless be able to expropriate if funded. This produces two countervailing effects on the existence of equilibria with delegation. The more obvious effect is that this hinders prospects for parliament by making the elite more skeptical of funding a ruler who has delegated (tighter elite willingness constraint). But the overall effect is

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[14]Myers (1975, 29-34) and Finer (1997, 1036-9) provide an overview.

[15]Details are in online Appendix A.13.

ambiguous, because greater leeway for the ruler increases her willingness to submit to parliament in the first place.

5 CASE ILLUSTRATIONS

The following examples suggest how to operationalize key factors in the model in real-world cases. They also motivate that these theoretical conditioning factors help to explain, empirically, why war threats sometimes yield parliamentary outcomes consistent with the conventional wisdom and sometimes not.

5.1 ELITE CREDIBILITY CONDITION

The war threat exerts ambiguous equilibrium effects on parliament in our model. One reason is that despite enhancing the ruler's willingness to call parliament, the threat also undermines a landed elite's leverage to demand parliament. The elite credibility constraint is more likely to bind (either for a landed or merchant elite) if the war aims are offensive rather than defensive (Lemma 8).[16] Thus, cases of offensive war should tend to correspond with the conventional logic of war causing parliament, whereas strong defensive war threats should provide examples of our alternative mechanism.

This proposition has considerable empirical face-validity. Many scholars attribute England's stronger constitutional development relative to continental states on its insular island location, which enabled it to avoid the defensive land wars prevalent in Europe.[17] English nobles consistently resisted royal requests for war funds on the grounds that they did not want to finance foreign wars. Henry III faced resistance from nobles to gain funding for wars to recover his continental lands.

> "None of them had any interest in the southern lands of the old Angevin Empire . . . Henry might try to persuade the magnates that his rights on the Continent were their concern, as he did in the parliament of July 1248, but the point was not taken . . . For Henry, direct taxation was the great honeypot. But between the king and his subjects' wealth there now stood parliament, the firm controller of the honeypot's lid" (Maddicott 2010, 171-2).

In 1525, Henry VIII sought to regain the French Crown or at least recover provinces that England had

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[16]Theoretically, we show that the elite credibility constraint is driven not only by the value of the elite's outside option, but also by the ruler's moral hazard problem (the probability of providing public goods if unconstrained). In the empirical cases, we focus mainly on the first mechanism.

[17]See, for example, Ertman's (1997, 11-12) summary of Otto Hintze's arguments.

previously lost to France, but elites engaged in widespread opposition (Graves 2001, 80). Tudor monarchs in the sixteenth century faced particular resistance given their demands to collect taxes in coin. "Short of an actual invasion of the realm by a foreign power, many MPs undoubtedly thought that no crisis could be severe enough to warrant . . . draining away more of their fiscal resources and coin than they could afford" (Hoffman and Norberg 1994, 51). Instead, England "counted on the protection of the seas to keep it from invasion" (52). Charles I faced similar resistance to fighting continental wars. "On five occasions—in 1625 (twice), 1626, 1628 and 1629—Charles called Parliaments to fund his wars, but only twice did he obtain subsidies. Unlike the Dutch, the English were not fighting for independence and so there was less enthusiasm for war, especially for the French war which seemed to have little to do with the national interest" (Graves 2001, 124).[18]

By contrast, France did not benefit from these natural geographic protections. The French king's ability to levy taxes during the Hundred Years' War with England (1337–1453) exemplifies an invasion undercutting the elite credibility constraint. The French Estates-General convened periodically during the war, but even compared to the contemporaneous English Parliament, it was quite weak. Instead, the less centralized nature of French elites at the time left greater power in regional *parlements*, judicial bodies that seconded as legislatures. Thus, despite the existence of an Estates General that convened elites from across the country, we interpret this as a case, using terminology from the model, of not delegating to parliament.

Nevertheless, in the 1430s, the Estates General granted extensive taxation prerogatives to King Charles VII in the form of the *taille*. One historian refers to this decision as "institutional suicide" for the Estates-General (Wolfe 1972, 40). Especially given the lack of coercive means that later French monarchs used against elites during the Thirty Years War, why would elites that lacked any real ability to check the king grant such broad privileges to him? Hopcroft's (1999, 76) explanation matches closely with our proposed mechanism:

> "The initial breakdown of resistance to direct taxation in France may be partly accounted for by the fact that at the time France had experienced many long years of war on its territory. People were prepared to make great sacrifices to stop the warfare on their lands. At the time the taille was instituted in the 1430s, France was an occupied country, with the English permanently stationed in Normandy and English control extending all over northern France, Brittany, and Guyenne."

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[18]As an example of the moral hazard problem of offensive warfare, Charles II used funds granted by Parliament to ally with the Dutch to instead fight them. This led Parliament in 1674 to cut off funding for the war (Hoffman and Norberg 1994, 74).

The regional distribution of anti-tax revolts provides corroborating evidence. In the south of France, where there was no military threat, the state faced considerable resistance to tax collection. By contrast, in the occupied north, there was comparatively little resistance (Hopcroft 1999, 82).

In other cases, defensive wars induced parliamentary reversals. The Castilian Cortes entered the seventeenth century in a relatively strong position such that we can think of the Spanish Crown as having delegated to parliament.[19] Spain accumulated considerable debt following the failed Armada against England in 1588 and turned to the Castilian Cortes to impose a new direct tax, the *millones*. The Cortes acquiesced, but in return for concessions that placed the relationship between Crown and Cortes onto a "formally contractual basis" (Hoffman and Norberg 1994, 187). Specifically:

> "[T]he *millones* contracts were far beyond their predecessors not only in being concerned with the administration of the 'service' itself, but also in specifying the purposes to which the new money was to be applied and in making the grant conditional on the the promulgation of a large number of general measures deemed to be for the common good of the kingdom . . . [including] economic regulation, the administration of justice, social policy, even the organization of defense" (186).

However, the Thirty Years' War interrupted the progress made in the beginning of the seventeenth century. By the 1640s, Philip IV appealed directly to individual cities for funds rather than call the Cortes, which fell into permanent disuse by Habsburg monarchs starting in the 1660s. In the interim, Philip IV gained tax concessions without bargaining with parliament. "[T]he fact that from the mid 1630s the war was being fought on Spanish soil was also a crucial factor in determining the climate in which the king's demands were received . . . Spain itself was under threat and the integrity of the Monarchy in jeopardy. There could be no question that the demands were just and that to accede to them was a necessity of survival as well as conscience" (197).[20] Other examples in which defensive wars undermined the bargaining leverage of parliament and led to a stronger executive include Denmark following repeated Swedish invasions and "hu-

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[19]This reflects a relatively recent change in the historiography of the topic (Hoffman and Norberg 1994, 181-2; Graves 2001, 90).

[20]Thompson then explicitly contrasts this stance with the Cortes' earlier opposition to funding what was essentially an offensive war to prevent Dutch independence from the Habsburg empire. "The Cortes of Castile, appalled at the high cost of seeking the salvation of the Dutch, petitioned Philip [II] in 1593 to abandon the crusade and to leave the matter more economically and more efficiently to God. As for the heretics, 'if they want to be damned, let them be'" (Maland 2015, 6).

miliating" peace terms (which engendered a period of absolutism from 1660 to 1835; Graves 2001, 118); Poland in 1791 following invasion during the French Revolutionary, which made elites "terrified of further invasion" (Finer 1997, 1049); and the Netherlands in the 1748. The populace believed that "only an Orange prince could save the Republic from destruction now that the French had invaded its territory" (Hoffman and Norberg 1994, 130).

Moving beyond European countries proper to analyze parliamentary development in their early overseas colonies, Jamaica provides an informative example for our mechanism. Rather than highlighting the offensive/defensive distinction, the main threat perceived by elites was always defensive and grew in magnitude over time, eventually causing a parliamentary reversal. England conquered Jamaica in the 1650s, and by 1660 its population was predominantly English (E). The white settlers refused to consent to taxation without representation, and amid a low threat the Crown (R) acquiesced to a local Jamaican Assembly. Soon after, Jamaica became a major sugar producer, which it achieved in part through large-scale enslaved African labor (X), who white elites perceived as a grave "outsider" threat despite the domestic nature of the threat. But rather than a threat *facilitating* parliament, it eventually caused white settlers to voluntarily disband their legislature, consistent with the elite credibility threat failing. The triggering event was a rebellion at Morant Bay in 1865, which whites brutally suppressed. Emblematic of the elites' views of the now-freed Africans, in the vote to disband parliament and become a directly ruled British Crown Colony, Jamaica's governor "declared that only a strong-minded government could preserve the island from further violence" (Green 1976).

5.2 ELITE WILLINGNESS CONDITION

We also uncover countervailing effects of the war threat on equilibrium parliament by showing that war enhances a merchant elite's leverage over the ruler. Moderate amounts of leverage promote parliament by making the elite credibility constraint bind, but high leverage undermines parliament by violating the elite willingness constraint. Thus, paradoxically, the war threat can strengthen the elite's leverage to demand parliament *by too much*.

There are two intuitive ways to operationalize the exit option. The first is physical migration. This threat is typically effective when the land-to-labor ratio is high. For example, Spain was a frontier society in the

Middle Ages, which contributed to early parliamentary gains.[21] As Visigothic peoples defeated Muslim polities on the Iberian peninsula:

> "[T]he need was to resettle the successive layers of reconquered territory and to organize the defense of the unconsolidated frontier. A new population had to be attracted by allowing them personal liberty and allocating lands to them on favorable terms, and charters of privileges and self-government (*fueros*) had to be granted to the new towns . . . The Cortes had emerged as an institution in the late-twelfth and thirteenth centuries as kings sought to mobilize the political and financial resources of an expanding urban sector" (Hoffman and Norberg 1994, 142).

A similar dynamic explains the spread of representative institutions across English North American colonies in the seventeenth century. Following the Stuart Restoration, the typical mode of colonization was for Charles II to issue grants to individual proprietors. Given their inherent desire to concentrate control and maximize profits, this would seem to create less auspicious conditions for parliamentary development than, for example, earlier English charter settlements in Massachusetts. However, potential settlers had a viable exit option to either not move at all to the New World, or to move to a colony that granted political rights. Thus, proprietors faced strong incentives to allow assemblies. "Throughout the empire, propertied Englishmen cherished legislative control over taxation as their most fundamental liberty. The proprietors accepted assemblies as a means to attract or retain propertied colonists, who were essential to a colony's economic development, which was critical to the proprietors' revenues" (Taylor 2002, 246-7).

Another way to operationalize exit is in terms of asset mobility, the focus of Bates and Lien's (1985) early argument connecting war and parliament. Two of the strongest parliaments in Western Europe throughout the early modern era were in England and the Netherlands. In both countries, long-distance trade was an important component of national wealth and government revenues, and merchants were influential elites.[22] As we discussed prior to the model analysis, mobile capital enables merchants to hide or otherwise move their assets outside the reach of the state, creating leverage to demand parliamentary representation.

However, the negotiating leverage of mobile elites can also *undermine* state formation in a high-threat environment. In both medieval Spain and early English North American colonies, the exit option triggered

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[21]Historians typically date the first European parliament to Leon (Spain) in 1188, as opposed to earlier protoparliaments or king's councils that were informal and did not include representatives from towns.

[22]This was particularly true by the end of the seventeenth century, as profits from Atlantic trade accrued primarily to merchants beyond the direct reach of either the English king or the Dutch stadtholder (Acemoglu, Johnson and Robinson 2005).

parliament in *moderate* threat environments. Given the viable migration option, counterfactually, it seems likely that a stronger external threat would have undermined state formation. In fact, perhaps the most important reason that English colonies did not emerge south of Virginia until the mid-seventeenth century was the earlier credible threat of Spanish invasion, which waned over time. "Charles Town boldly defied Spanish claims to that coast, signifying England's new confidence in its emerging imperial power as Spain grew weaker. In 1607, the English had felt obliged to hide their Jamestown colony up a distant river, but in 1670 they defiantly planted Charles Town near the coast on the very margins of Florida" (Taylor 2002, 224).

The Hanseatic League in Europe provides a factual example of exit and state fragmentation in a high-threat environment. The fall of the Carolingian empire enabled many independent towns to emerge in central Europe beyond the reach of princely control (Stasavage 2011). Although there were clear benefits to coalescing into a broader political unit, joining a territorially defined state was not necessarily the best option even if granted charter or parliamentary protection by a particular prince. Given the fragmented nature of the European state system in the late Middle Ages, "[t]owns that transacted business across these feudal units were faced with a variety of different legal codes, local tolls, differences in weights and measures, variation in coinage, and sometimes outright robbery, all to the detriment of the burghers' business" (Spruyt 1996, 119). To counteract the problem of numerous points along a trading route where a rival state could expropriate or extort them (therefore posing a large threat, from the perspective of merchants), cities could band together in a league not controlled by nobles. The possibility of joining such a mutual protection network indicated high σ. The Hanseatic League, the most prominent of the trading leagues, was a not a territorial state. It "lacked a clear hierarchical authority and formal territorial borders. It attempted to construct political institutions to organize its long-distance commerce, wherever that went" (129). Despite its non-territorial organization, it was still able to effectively protect the privileges of its merchants amid the military revolution and rising warfare across Europe. "This community of traders, the *universi mercatores*, would sail together in convoy and seek joint representation in foreign countries. Sailing together in convoy provided for better defense against deprivations by pirates and lords. . . . Burghers formed these leagues with the explicit purpose of defending towns against encroachment by the nobility" (120-1).

5.3 Ruler Willingness Condition

In our model, the effect of the ruler's endowment, θ_R, recovers existing understandings for the rise of parliaments in Europe in contrast to China or the Middle East, based on the greater fragmentation of the European state system throughout most of the medieval period (Downing 1993; Stasavage 2016; Blaydes 2017; Dincecco and Wang 2018). Throughout much of Europe, local elites consolidated hereditary control over land nominally owned by the Crown, and feudal knights controlled military power, yielding low θ_R. This lowered the opportunity cost of delegating to parliament and providing public goods. By contrast, in Mamluk-controlled Egypt, for example, a highly centralized and efficient slave army controlled the territory. Rulers offered land grants to pay senior officers, but "sultans strove mightily and successfully to prevent the *iqta* from becoming hereditary" (Finer 1997, 733). Elites not directly connected to the Crown possessed little wealth (high θ_R), which created minimal incentives to make concessions to elites.

The model also provides a new perspective on well-known cases of coercive statebuilding such as Prussia and France during the Thirty Years War. In both cases, θ_R was higher than in the medieval period, as both rulers had access to a standing army and were able to divide and rule among regional elites to gain some funding sources without needing to call the national parliament. Consistent with the implications from our coercive statebuilding extension, high θ_R induced kings in each case to use their army as a means to avoid parliament and to directly collect taxes. However, the results from our baseline model highlight various reasons why war would have failed to stimulate parliament in these cases even absent a coercive option (and, as noted for France, the national Estates General had traditionally been weak).[23] Thus, although these are particularly stark exceptions to the war-makes-parliaments argument, they are better interpreted among the broader reasons that war can undermine parliament rather than exceptional cases.

6 Conclusion

This paper developed and analyzed a formal model to examine the strategic underpinnings of the conventional argument that war threats stimulated the rise of parliaments in Western Europe. We recover conditions under which this logic holds, but also highlight two new mechanisms that yield the opposite implication, both of which arise from considering how the war threat affects an elite actor's demand for parliament. A strong threat makes incredible a landed elite's refusal to provide funding without the ruler delegating to

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[23]See also Finer (1997, 1037).

parliament (too little leverage), and also makes a merchant elite unwilling to fund even a constrained government (too much leverage). We highlight the empirical relevance of these mechanisms with numerous examples from European statebuilding.

There are numerous possible ways to extend the model to address related questions. To facilitate a richer interaction on the domestic side, we simplified the international threat. However, one possibility would be to model an endogenous threat and examine how this might engender a parliament "arms race," or how the threat of elite exit could endogenously lower the value of capturing territory. We also deliberately omitted a strategic coercive option from the baseline model to highlight alternative mechanisms that undermine cooperative statebuilding. However, rather than the simple cost for the ruler of using coercion that we consider in the extension here, it would also be fruitful to examine other constraints that a standing army imposes on rulers, such as the threat of a coup or of refusing orders to repress. Such extensions would provide further insight into the statebuilding process in historical Europe and elsewhere.

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A APPENDIX

A.1 PROOF OF LEMMA 1

We begin with a useful fact about our contest success function, proving the property illustrated in Figure 1.

Lemma A.1. p_H/p_L *is strictly increasing in* θ_X.

Proof. We have

$$
\begin{aligned}
\frac{\partial}{\partial \theta_X}\left[\frac{p_H}{p_L}\right] &= \frac{1}{p_L} \cdot \frac{\partial p_H}{\partial \theta_X} - \frac{p_H}{p_L^2} \cdot \frac{\partial p_L}{\partial \theta_X} \\
&= \frac{1}{p_L}\left[-\frac{\theta_F}{(\theta_F + \theta_X)^2} + \frac{p_H}{p_L} \cdot \frac{\theta_R}{(\theta_R + \theta_X)^2}\right] \\
&= \frac{1}{p_L}\left[\frac{p_H}{p_L} \cdot \frac{p_L^2}{\theta_R} - \frac{p_H^2}{\theta_F}\right] \\
&= \frac{p_H}{p_L}\left[\frac{p_L}{\theta_R} - \frac{p_H}{\theta_F}\right] \\
&= \frac{p_H}{p_L}\left[\frac{1}{\theta_R + \theta_X} - \frac{1}{\theta_F + \theta_X}\right] \\
&> 0,
\end{aligned}
$$

as claimed. $\qquad\square$

This result drives the proof of the lemma.

Lemma 1 (Invasion threats substitute for delegation)**.** *Assume that R does not delegate to parliament and that E funds the government. It is a best response for R to provide public goods if and only if $\theta_X \geq \hat{\theta}_X$, where $0 < \hat{\theta}_X < \infty$.*

Proof. Because $p_H(0) = p_L(0) = 1$ and $\alpha < 1$, Equation 4 cannot hold at $\theta_X = 0$. At the other extreme, we have

$$
\lim_{\theta_X \to +\infty} \frac{p_H(\theta_X)}{p_L(\theta_X)} = \lim_{\theta_X \to +\infty}\left(\frac{\theta_F}{\theta_F + \theta_X}\right)\left(\frac{\theta_R + \theta_X}{\theta_R}\right) = \frac{\theta_F}{\theta_R}.
$$

Our assumption that $\theta_R < \alpha\theta_F$ thus implies that Equation 4 holds for sufficiently large ψ. The existence of the cutpoint $\hat{\theta}_X \in (0, \infty)$ then follows from the fact that p_H/p_L is continuous and strictly increasing. $\qquad\square$

A.2 PROOF OF PROPOSITION 1

We first prove that the important monotonicity of p_H/p_L (see Lemma A.1) carries over to the ratio of their expectations. Treating ϵ as fixed, let $F(\cdot;\psi)$ and $f(\cdot;\psi)$ denote the CDF and PDF, respectively, of the uniform distribution over $[\psi - \epsilon, \psi + \epsilon]$.

Lemma A.2. $\bar{p}_H/\bar{p}_L$ *is strictly increasing in* ψ.

Proof. Observe that

$$\frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} = \frac{\int_0^\infty p_H(\theta_X) f(\theta_X; \psi)\, d\theta_X}{\int_0^\infty p_L(\theta_X) f(\theta_X; \psi)\, d\theta_X}.$$

Because p_H/p_L is strictly increasing in θ_X (per Lemma A.1) and f satisfies the MLRP in ψ, this ratio of integrals is strictly increasing in ψ (Wijsman 1985). $\qquad\square$

We can also show that the limit of $\bar{p}_H/\bar{p}_L$ as the outsider grows arbitrarily strong in expectation is the same as that of p_H/p_L as the outsider's realized strength increases without bound.

Lemma A.3.

$$\lim_{\psi \to +\infty} \frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} = \frac{\theta_F}{\theta_R}.$$

Proof. First observe that

$$\begin{aligned}
\bar{p}_H(\psi) &= \int_0^\infty p_H(\theta_X) f(\theta_X; \psi)\, d\theta_X \\
&= \frac{\theta_F}{2\epsilon} \int_{\psi-\epsilon}^{\psi+\epsilon} \frac{1}{\theta_F + \theta_X}\, d\theta_X \\
&= \frac{\theta_F}{2\epsilon} \log\left(\frac{\theta_F + \psi + \epsilon}{\theta_F + \psi - \epsilon}\right),
\end{aligned}$$

and, following an analogous line of logic,

$$\bar{p}_L(\psi) = \frac{\theta_R}{2\epsilon} \log\left(\frac{\theta_R + \psi + \epsilon}{\theta_R + \psi - \epsilon}\right).$$

Therefore, via repeated application of L'Hôpital's rule,

$$
\begin{aligned}
\lim_{\psi \to +\infty} \frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} &= \frac{\theta_F}{\theta_R} \lim_{\psi \to +\infty} \frac{\log\left(\frac{\theta_F + \psi + \epsilon}{\theta_F + \psi - \epsilon}\right)}{\log\left(\frac{\theta_R + \psi + \epsilon}{\theta_R + \psi - \epsilon}\right)} \\
&= \frac{\theta_F}{\theta_R} \lim_{\psi \to +\infty} \frac{(\theta_R + \psi)^2 - \epsilon^2}{(\theta_F + \psi)^2 - \epsilon^2} \\
&= \frac{\theta_F}{\theta_R} \lim_{\psi \to +\infty} \frac{\theta_R + \psi}{\theta_F + \psi} \\
&= \frac{\theta_F}{\theta_R}.
\end{aligned} \qquad \square
$$

This allows us to prove the proposition.

Proposition 1. *In equilibrium:*

(a) R will not delegate to parliament if doing so is unnecessary to generate funding (elite credibility fails).

(b) R will not delegate to parliament if doing so is insufficient to generate funding (elite willingness fails).

(c) R may delegate to parliament if doing so is necessary and sufficient to generate funding. In this case:

- *If $\theta_R \leq \alpha$, then R is willing to delegate to parliament regardless of ψ.*

- *If $\theta_R > \alpha$, then R is willing to delegate to parliament if and only if $\psi \geq \hat{\psi}$, where $0 < \hat{\psi} < \infty$.*

Proof. To prove part (a), observe that by Lemma 1 we have $p_L(\theta_X) > p_H(\theta_X) \cdot \alpha$ for all $\theta_X \in [0, \hat{\theta}_X)$. Therefore,

$$
\begin{aligned}
\mathbb{E}[U_R(R \text{ doesn't delegate}, E \text{ funds})] &= \int_0^\infty \max\{p_L(\theta_X), p_H(\theta_X) \cdot \alpha\} \, dF(\theta_X; \psi) \\
&\geq \int_0^\infty p_H(\theta_X) \cdot \alpha \, dF(\theta_X; \psi) \\
&= E[U_R(R \text{ delegates}, E \text{ funds})].
\end{aligned}
$$

In case the above holds with equality (i.e., if $\hat{\theta}_X \notin (\psi - \epsilon, \psi + \epsilon)$), the argument follows by the lexical preference ordering assumed in footnote 11.

To prove part (b), observe that R's expected utility from not being funded does not depend on whether R

Figure A.1: Probability of public good provision and successful resistance
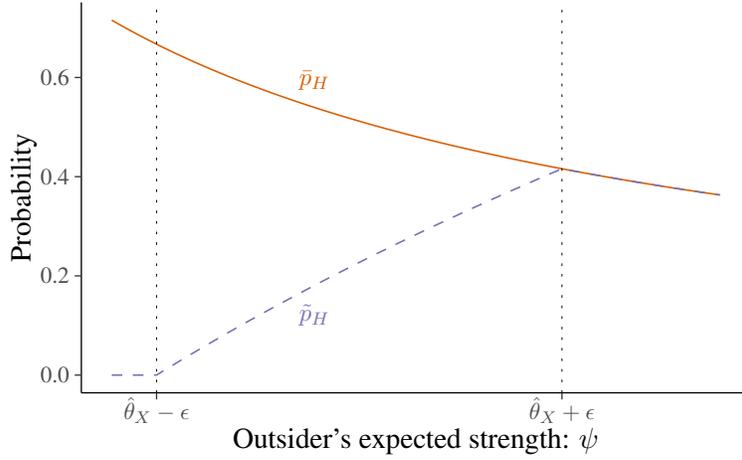
delegates to parliament. From there the argument follows by the lexical preference ordering assumed in footnote 11.

To prove part (c), first observe that the condition to prefer constrained funds over no funds is

$$\frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} \geq \frac{\theta_R}{\alpha}. \tag{A.1}$$

The LHS of this expression is strictly increasing in ψ, per Lemma A.2. Our assumption that $\theta_R < \alpha\theta_F$ guarantees that the condition holds for large enough ψ, per Lemma A.3. Because $\bar{p}_H \geq \bar{p}_L$ with equality at 0, the condition holds for all ψ if and only if $\theta_R \leq \alpha$. □

A.3 PROOF OF LEMMA 2

Define $\tilde{p}_H(\psi)$ as the expected probability of success against the outsider in case R is funded without having delegated to parliament. Specifically, let

$$\tilde{p}_H(\psi) = \int_{\hat{\theta}_X}^{\infty} p_H(\theta_X) \, dF(\theta_X; \psi), \tag{A.2}$$

where $\hat{\theta}_X$ is defined as in Lemma 1. Under our assumption that $\theta_X \sim U[\psi - \epsilon, \psi + \epsilon]$, we have

$$\tilde{p}_H(\psi) = \begin{cases} 0 & \psi \leq \hat{\theta}_X - \epsilon, \\ \int_{\hat{\theta}_X}^{\psi+\epsilon} \frac{p_H(\theta_X)}{2\epsilon} \, d\theta_X & \hat{\theta}_X - \epsilon < \psi < \hat{\theta}_X + \epsilon, \\ \bar{p}_H(\psi) & \psi \geq \hat{\theta}_X + \epsilon. \end{cases} \quad \text{(A.3)}$$

Notice that $\tilde{p}_H$ is strictly increasing on $(\hat{\theta}_X - \epsilon, \hat{\theta}_X + \epsilon)$ and strictly decreasing on $(\hat{\theta}_X + \epsilon, \infty)$, as illustrated in Figure A.1.

Lemma 2. *If $\psi \geq \hat{\theta}_X + \epsilon$ and the elite willingness constraint* (6) *holds strictly, then the elite credibility constraint* (7) *fails.*

Proof. For $\psi \geq \hat{\theta}_X + \epsilon$, we have $\tilde{p}_H(\psi) = \bar{p}_H(\psi)$ per Equation A.3. It is then immediate that Equation 7 fails if Equation 6 holds strictly. $\square$

A.4   PROOF OF LEMMA 3

Lemma 3. *If E's outside option is to refuse, the elite willingness constraint holds for all ψ.*

Proof. The elite willingness constraint in this case is equivalent to

$$\bar{p}_H(\psi) \cdot \alpha \geq \bar{p}_L(\psi) \cdot (1 - \theta_R), \quad \text{(A.4)}$$

which always holds as $\bar{p}_H \geq \bar{p}_L$ and $\alpha > 1 - \theta_R$. $\square$

A.5   PROOF OF LEMMA 4

Lemma 4. *Assume that R does not delegate to parliament and, if funded, chooses public goods with probability $\Pr(\text{public goods}) \in [0, 1]$ for all θ_X. Then as the war threat ψ increases, it becomes more difficult for the elite credibility constraint to hold.*

Proof. The elite credibility constraint in this case is equivalent to

$$\Pr(\text{public goods}) \cdot \frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} \leq \frac{1 - \theta_R}{\alpha}.$$

The LHS is strictly increasing in ψ, per Lemma A.2, which proves the claim. □

A.6 PROOF OF LEMMA 5

Lemma 5. *If E's outside option is to refuse, the elite credibility constraint holds if and only if $\psi \leq \psi^*_{refuse}$, where $\hat{\theta}_X - \epsilon < \psi^*_{refuse} < \hat{\theta}_X + \epsilon$.*

Proof. In this case, the elite credibility constraint is equivalent to

$$\bar{p}_L(\psi) \cdot (1 - \theta_R) \geq \tilde{p}_H(\psi) \cdot \alpha. \tag{A.5}$$

It is evident from Equation A.3 that this holds if $\psi \leq \hat{\theta}_X - \epsilon$, as then $\tilde{p}_H(\psi) = 0$. For all $\psi \geq \hat{\theta}_X + \epsilon$, elite credibility is equivalent to $\bar{p}_L(\psi) \cdot (1 - \theta_R) \geq \bar{p}_H(\psi) \cdot \alpha$, which cannot hold as $0 < \bar{p}_L \leq \bar{p}_H$ and $1 - \theta_R < \alpha$. From there, the existence of the cutpoint ψ^*_{refuse} follows from the fact that $\tilde{p}_H$ is continuous and is strictly increasing on $(\hat{\theta}_X - \epsilon, \hat{\theta}_X + \epsilon)$. □

A.7 PROOF OF PROPOSITION 2

Proposition 2. *Assume E's outside option is to refuse. If $\theta_R \leq \alpha$, there is an equilibrium in which R delegates to parliament if and only if $\psi \leq \psi^*_{refuse}$. Otherwise, if $\theta_R > \alpha$, such an equilibrium exists if and only if $\hat{\psi} \leq \psi \leq \psi^*_{refuse}$.*

Proof. Immediate from Proposition 1, Lemma 3, and Lemma 5. □

A.8 PROOF OF LEMMA 6

We first provide an implicit definition of the cutpoint $\psi^\dagger_{exit}$. This will prove useful in showing that the elite credibility constraint is defined in terms of the same point.

Lemma A.4. *There exists a unique $\psi^\dagger_{exit} > 0$ such that*

$$\sigma \cdot (1 - \theta_R) = \bar{p}_H(\psi^\dagger_{exit}) \cdot \alpha. \tag{A.6}$$

Proof. $\bar{p}_H$ is continuous and strictly decreasing with $\lim_{\psi \to \infty} \bar{p}_H(\psi) = 0$. Because $\alpha > 1 - \theta_R$ and $\sigma < 1$, we have $\sigma \cdot (1 - \theta_R) < \bar{p}_H(0) \cdot \alpha = \alpha$. The claim then follows from the intermediate value theorem. □

This allows us to prove the lemma in the text.

Lemma 6. *If E's outside option is to exit, then the elite willingness constraint holds if and only if $\psi \leq \psi^\dagger_{exit}$, where $\psi^\dagger_{exit} > 0$.*

Proof. The elite willingness constraint in this case is equivalent to

$$\bar{p}_H(\psi) \cdot \alpha \geq \sigma \cdot (1 - \theta_R).$$

As $\bar{p}_H$ is strictly decreasing, it is obvious that this condition holds if and only if $\psi \leq \psi^\dagger_{exit}$ as defined in Lemma A.4. $\square$

A.9 PROOF OF LEMMA 7

Lemma 7. *Assume E's outside option is to exit. If $\sigma \geq \sigma^* \equiv (\bar{p}_H(\hat{\theta}_X + \epsilon) \cdot \alpha)/(1 - \theta_R)$, then the elite credibility constraint holds for all ψ. Otherwise, if $\sigma < \sigma^*$, then the elite credibility constraint holds if and only if $\psi \notin (\psi^*_{exit}, \psi^\dagger_{exit})$, where $\hat{\theta}_X - \epsilon < \psi^*_{exit} < \hat{\theta}_X + \epsilon < \psi^\dagger_{exit}$.*

Proof. In this case, the elite credibility constraint is equivalent to

$$\sigma \cdot (1 - \theta_R) \geq \tilde{p}_H(\psi) \cdot \alpha. \tag{A.7}$$

The LHS of this condition is constant in ψ. Per Equation A.3, the RHS is constant in ψ on $(0, \hat{\theta}_X - \epsilon)$, strictly increasing on $(\hat{\theta}_X - \epsilon, \hat{\theta}_X + \epsilon)$, and strictly decreasing thereafter. It is immediate that the RHS is maximized at $\psi = \hat{\theta}_X + \epsilon$, so elite credibility must hold for all ψ if it holds at this point, which is equivalent to $\sigma \geq \sigma^*$. Otherwise, there is an interval around $\hat{\theta}_X + \epsilon$ for which elite credibility fails. It is immediate from Equation A.3 and Equation A.7 that the upper bound of this interval is $\psi^\dagger_{exit}$, as defined in Lemma A.4. Finally, the lower bound $\psi^*_{exit} > \hat{\theta}_X - \epsilon$ because $\tilde{p}_H(\psi) = 0$ for all $\psi \leq \hat{\theta}_X - \epsilon$. $\square$

Proposition 3. *If E's outside option is to exit, then there is an equilibrium in which R delegates to parliament if and only if $\underline{\psi} \leq \psi \leq \overline{\psi}$, where*

$$
\underline{\psi} = \begin{cases} 0 & \theta_R \leq \alpha, \\ \hat{\psi} & \theta_R > \alpha, \end{cases} \qquad \overline{\psi} = \begin{cases} \psi^*_{exit} & \sigma < \sigma^*, \\ \psi^{\dagger}_{exit} & \sigma \geq \sigma^*. \end{cases}
$$

Proof. Immediate from Proposition 1, Lemma 6, and Lemma 7. □

A.11   HYBRID OUTSIDE OPTION

In practice, the elite may not be restricted to a single outside option in case they elect not to fund the ruler. Consider a merchant elite that faces a moderate cost of exiting the country. If the external threat is insignificant, such merchants might prefer to stay put and run a small risk of losing their wealth to the outsider, rather than incurring the costs of exiting. Conversely, a landed elite might prefer to liquidate whatever assets they can, even at a high cost, if the alternative is near-certain expropriation by the external threat. To allow for these possibilities, we now briefly consider an elite that can choose to refuse *or* exit.

Figure A.2: Elite's choice and value with hybrid outside option
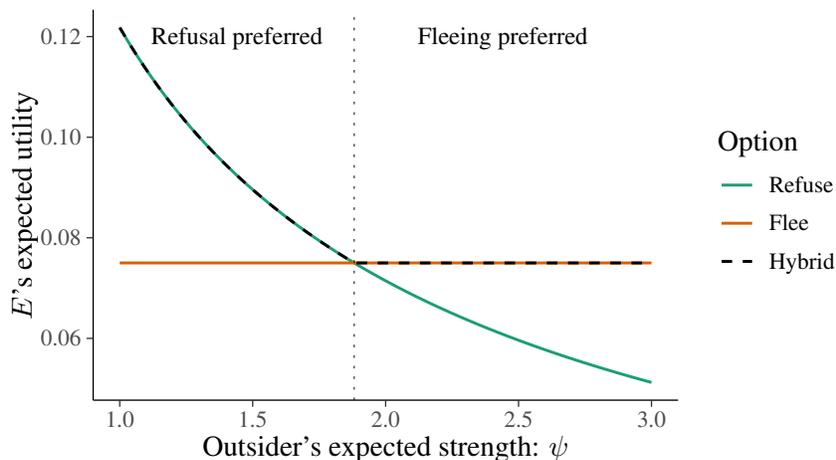
Note: $\sigma = 0.3, \theta_R = 0.75$. Other parameters same as Figure 3.

In this case, the elite effectively has two outside options. If the elite chooses not to fund the ruler, then it

will exercise whichever outside option yields a greater expected utility:

$$\mathbb{E}\left[U_E(\text{outside option})\right] = \max\left\{\underbrace{\bar{p}_L(\psi) \cdot (1 - \theta_R)}_{\text{refuse}}, \underbrace{\sigma \cdot (1 - \theta_R)}_{\text{exit}}\right\}.$$

The value of the refusal option declines with the outsider's expected strength, ψ, while the value of exiting is constant. Therefore, as illustrated in Figure A.2, the elite's preferred outside option is to refuse if the outsider is weak; its preference is to exit if the outsider is strong.

When the outsider is relatively weak, so ψ is low, then the elite willingness and credibility constraints from the refusal case will apply. Willingness holds trivially (Lemma 3), while credibility holds for small enough ψ (Lemma 5). Once the outsider is strong enough that the elite would rather exit than remain and refuse, the constraints from the exit case apply. In particular, elite willingness will fail for large enough ψ (Lemma 6).

Altogether, allowing the elite to choose either outside option does not alter the main substantive conclusions of our analysis. At most, delegation to parliament is sustainable as an equilibrium only for a bounded set of values of ψ. There cannot exist a delegation equilibrium when the war threat is very strong, as then the elite would rather exit than fund even a ruler who has submitted to parliamentary oversight. On the other hand, when the war threat is weak, the main threat to the existence of a delegation equilibrium is the ruler's willingness to accept parliamentary constraints.

A.12   OFFENSIVE WARS

Payoffs in the offensive wars extension are as follows:

E's action	R's action	Conflict outcome	E's payoff	R's payoff
Don't fund	–	Win	$1 - \theta_R$	$\theta_R + \beta$
Don't fund	–	Lose	$\phi(1 - \theta_R)$	$\phi\theta_R$
Fund	Expropriate	Win	0	$1 + \beta$
Fund	Expropriate	Lose	0	ϕ
Fund	Public goods	Win	$\alpha + \pi\beta$	$\alpha + (1 - \pi)\beta$
Fund	Public goods	Lose	$\phi\alpha$	$\phi\alpha$

Lemma 8. *In the model with offensive wars, assume that R does not delegate to parliament and, if funded,*

chooses public goods with probability $\Pr(\text{public goods}) \leq \frac{1-\theta_R}{\alpha}$ *for all* θ_X. *Then as the offensiveness of the external conflict* ϕ *increases, it becomes easier for the elite credibility constraint to hold.*

Proof. Letting $\gamma \equiv \Pr(\text{public goods})$, the elite credibility constraint in the extended model is equivalent to

$$[\phi + \bar{p}_L(\psi) \cdot (1 - \phi)] (1 - \theta_R) - \gamma [\phi\alpha + \bar{p}_H(\psi) \cdot [(1 - \phi)\alpha + \pi\beta]] \geq 0. \tag{A.8}$$

The partial derivative of the LHS of this expression with respect to ϕ is

$$(1 - \bar{p}_L(\psi)) \cdot (1 - \theta_R) - (1 - \bar{p}_H(\psi)) \cdot \gamma\alpha.$$

This expression is positive if $\gamma \leq \frac{1-\theta_R}{\alpha}$, as $\bar{p}_H \geq \bar{p}_L$. $\qquad\square$

Lemma 9. *In the model with offensive wars, the probability of public good provision by an unconstrained ruler decreases with the offensiveness of the external conflict* ϕ. *If* $\phi > 0$ *and* ψ *is sufficiently large, an unconstrained ruler is certain to expropriate.*

Proof. The condition for an unconstrained ruler to prefer public good provision over expropriation is

$$\underbrace{[p_H(\theta_X) \cdot (\alpha + (1 - \pi)\beta) + (1 - p_H(\theta_X)) \cdot (\phi\alpha)]}_{U_R(\text{public goods})} - \underbrace{[p_L(\theta_X) \cdot (1 + \beta) + (1 - p_L(\theta_X)) \cdot \phi]}_{U_R(\text{expropriate})} \geq 0.$$

The partial derivative of the LHS of this expression with respect to ϕ is

$$p_L(\theta_X) - p_H(\theta_X) \cdot \alpha < 0,$$

proving the first claim of the lemma. To prove the second claim, observe that $\lim_{\theta_X \to \infty} p_L(\theta_X) = \lim_{\theta_X \to \infty} p_H(\theta_X) = 0$ and therefore, if $\phi > 0$,

$$\lim_{\theta_X \to \infty} \left\{ [p_H(\theta_X) \cdot (\alpha + (1 - \pi)\beta) + (1 - p_H(\theta_X)) \cdot (\phi\alpha)] - [p_L(\theta_X) \cdot (1 + \beta) + (1 - p_L(\theta_X)) \cdot \phi] \right\}$$

$$= \phi(\alpha - 1) < 0.$$

Consequently, the probability of public good provision by an unconstrained ruler is zero for sufficiently

large ψ. $\qquad\qquad\square$

Proposition 4. *In the model with offensive wars, if $\phi > 0$, then the elite credibility constraint holds for all sufficiently large ψ.*

Proof. Immediate from Equation A.8 and Lemma 9. $\qquad\qquad\square$

A.13 PARLIAMENT WITHOUT FISCAL SUPREMACY

In this extension, we assume parliament is able to enforce constraints on a leader who has delegated with probability $q \in [0, 1]$. The parameter q represents the strength of parliamentary constraints, with the limiting case $q = 1$ corresponding to our baseline model. The ruler's expected utility from delegating to parliament and receiving funds is now

$$\mathbb{E}\left[U_R(R \text{ delegates}, E \text{ funds})\right]$$
$$= \int \left[qp_H(\theta_X)\alpha + (1-q)\max\{p_H(\theta_X)\alpha, p_L(\theta_X)\}\right] dF(\theta_X; \psi)$$
$$= \begin{cases} q[\bar{p}_H(\psi) \cdot \alpha] + (1-q)\bar{p}_L(\psi) & \psi \leq \hat{\theta}_X - \epsilon, \\[2mm] q[\bar{p}_H(\psi) \cdot \alpha] + (1-q)\left[\displaystyle\int_{\psi-\epsilon}^{\hat{\theta}_X} \frac{p_L(\theta_X)}{2\epsilon} \, d\theta_X + \int_{\hat{\theta}_X}^{\psi+\epsilon} \frac{p_H(\theta_X) \cdot \alpha}{2\epsilon} \, d\theta_X\right] & \hat{\theta}_X - \epsilon < \psi < \hat{\theta}_X + \epsilon, \\[2mm] \bar{p}_H(\psi) \cdot \alpha & \psi \geq \hat{\theta}_X + \epsilon. \end{cases}$$
$$\text{(A.9)}$$

The elite's utility from this outcome is now

$$\mathbb{E}\left[U_E(R \text{ delegates}, E \text{ funds})\right] = [q\bar{p}_H(\psi) + (1-q)\tilde{p}_H(\psi)] \cdot \alpha. \qquad\text{(A.10)}$$

Expected utilities for all other outcomes are the same as in the baseline model.

The ruler's expected utility from delegating and being funded enters on the left-hand side of the ruler willingness constraint, Equation 3. Per Equation A.9, this utility is strictly decreasing in q if $\psi < \hat{\theta}_X + \epsilon$, and otherwise is constant in q. Therefore, as parliament's fiscal supremacy declines, the ruler willingness constraint becomes looser if ψ is small enough, and otherwise is unaffected.

The elite's expected utility from funding a constrained ruler enters on the left-hand side of the elite willingness constraint, Equation 6. Per Equation A.10, this utility is strictly increasing in q if $\psi < \hat{\theta}_X + \epsilon$,

and otherwise is constant in q. Therefore, as parliament's fiscal supremacy declines, the elite willingness constraint becomes tighter if ψ is small enough, and otherwise is unaffected.

Figure A.3: Delegation equilibrium with partial fiscal supremacy
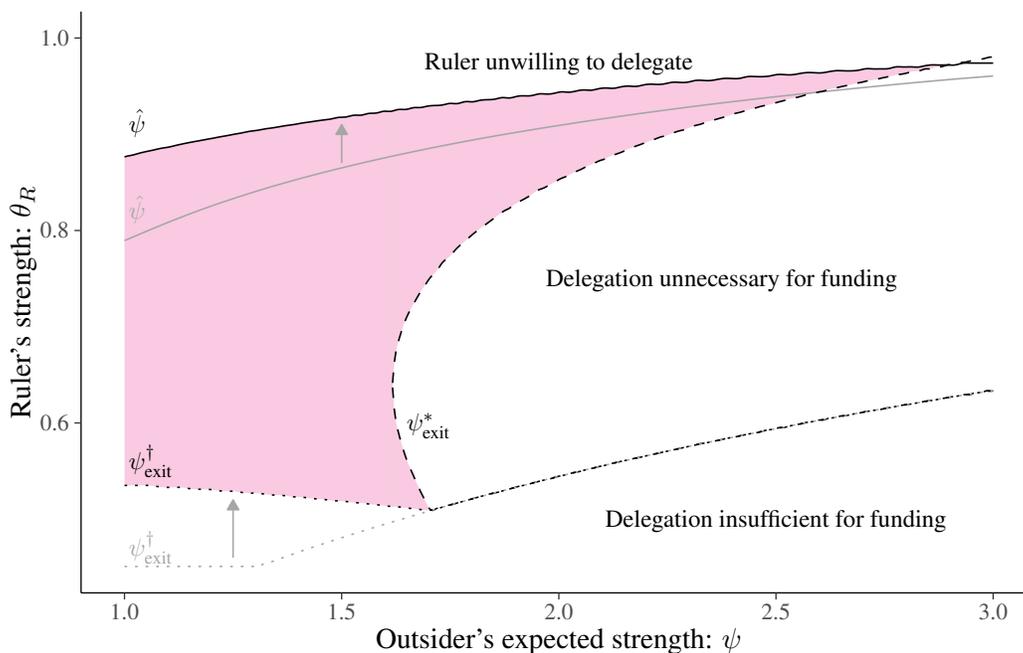
Note: $q = 0.5$. Outside option is exit. Other parameters same as Figure 9.

Incomplete fiscal supremacy does not uniformly enable or hinder the possibility of delegation to parliament in equilibrium, as illustrated in Figure A.3. If the ruler would be just barely unwilling to accept constraints under full supremacy, and the war threat were expected to be weak or moderate, then a weakening of parliamentary constraints tends to promote the occurrence of delegation. We see this in the upper-left and -middle of the figure, where a decrease in the constraining power of parliament makes a ruler with a high initial endowment more willing to delegate. On the other hand, if the elite would be just barely willing to fund a ruler who had delegated in the case of full supremacy, then looser parliamentary constraints might break the possibility of an equilibrium with delegation. This is what happens in the lower-left of the figure, when the temptation for the ruler to expropriate is greatest, and thus the elite's demand for true constraints on ruler behavior is highest.

A.14 RELAXING BOUNDARY CONDITIONS

In this section, we briefly outline how the relaxation of the boundary condition $\theta_R < \alpha\theta_F$ would affect our baseline results. This condition has two primary implications for the baseline analysis:

- That an unconstrained ruler who receives funds will provide public goods if the realized θ_X is great enough.

- That the ruler is willing to accept constraints *ex ante* if ψ is great enough. (Reversal of this claim requires an even stronger violation of the original boundary condition: $\theta_R^2 > \alpha\theta_F$. See the proof of Proposition 1.)

The following results would require qualification if these conditions were relaxed. As the original boundary condition holds trivially if $\alpha\theta_F \geq 1$, in what follows assume $\alpha\theta_F < 1$.

Lemma 1 (unconstrained ruler's choice).   If $\theta_R \geq \alpha\theta_F$, then it is never a best response for R to provide public goods, regardless of θ_X.

Proposition 1 (ruler willingness), part (c).   If $\theta_R \geq \sqrt{\alpha\theta_F}$, then R is unwilling to delegate to parliament regardless of ψ.

Lemma 5 (credibility when outside option is refuse).   If $\theta_R \geq \alpha\theta_F$, then the elite credibility constraint holds regardless of ψ. (This is because an unconstrained ruler now never provides public goods, so the RHS of Equation A.5 is always 0.)

Proposition 2 (delegation equilibrium when outside option is refuse).   If $\alpha\theta_F \leq \theta_R < \sqrt{\alpha\theta_F}$, then a delegation equilibrium exists if and only if $\hat{\psi} \leq \psi$, as the elite credibility constraint now holds for all ψ. If $\theta_R \geq \sqrt{\alpha\theta_F}$, then there is never a delegation equilibrium, as the ruler is never willing to delegate to parliament.

Lemma 7 (credibility when outside option is exit).   As with Lemma 5, if $\theta_R \geq \alpha\theta_F$, then the elite credibility constraint holds regardless of ψ.

Proposition 3 (delegation equilibrium when outside option is exit).   If $\alpha\theta_F \leq \theta_R < \sqrt{\alpha\theta_F}$, then a delegation equilibrium exists if and only if $\hat{\psi} \leq \psi \leq \psi_{\text{exit}}^{\dagger}$. If $\theta_R \geq \sqrt{\alpha\theta_F}$, then there is never a delegation equilibrium, as the ruler is never willing to delegate to parliament.

A.15 General Functional Forms

We now briefly outline how our results generalize when we consider alternative functional forms for p_L and p_H as well as alternative distributional assumptions on θ_X. Let $p_L : \mathbb{R}_+ \to [0,1]$ and $p_H : \mathbb{R}_+ \to [0,1]$ be strictly decreasing functions such that:

- $p_L(0) = p_H(0) = 1$.

- $p_L(\theta_X) < p_H(\theta_X)$ for all $\theta_X > 0$.

- p_H/p_L is strictly increasing.

The functional forms in the main text, $p_L(\theta_X) = \theta_R/(\theta_R + \theta_X)$ and $p_H(\theta_X) = \theta_F/(\theta_F + \theta_X)$, belong to the class of functions meeting these conditions. In what follows, let $\rho = \lim_{\theta_X \to \infty} p_H(\theta_X)/p_L(\theta_X)$. The monotonicity assumption on p_H/p_L ensures that ρ is well-defined, with $\rho \in (1, \infty]$. As an analogue of our baseline model assumption $\theta_R < \alpha\theta_F$, which ensured that it was a best response for an unconstrained government to provide public goods if the realized θ_X were sufficiently high, we will assume here that $\rho > 1/\alpha$.

Let θ_X be distributed according to a continuous CDF F with support on $\mathbb{R}_+$ and an associated density function f. Let F be characterized by a parameter $\psi \in \Psi \subseteq \mathbb{R}$ such that F satisfies the monotone likelihood ratio property in ψ. Again letting $\bar{p}_L(\psi) = \int_0^\infty p_L(\theta_X)f(\theta_X; \psi)\, d\theta_X$ and $\bar{p}_H(\psi) = \int_0^\infty p_H(\theta_X)f(\theta_X; \psi)$, we assume the following regularity conditions on F:

- For all $\psi', \psi'' \in \Psi$ such that $\psi' < \psi''$, there exists $\theta_X \in \mathbb{R}$ such that $f(\theta_X; \psi') < f(\theta_X; \psi'')$.[24]

- For any $\theta_X \in \mathbb{R}_+$ and $\epsilon > 0$, there exists $\psi' \in \Psi$ such that $F(\theta_X; \psi) < \epsilon$ for all $\psi > \psi'$.[25]

We refer to the limiting case of F being a degenerate distribution on 0 as "no external threat."

The proof of Lemma A.2 carries over to the general environment, which implies that $\bar{\rho} \equiv \lim_{\psi \to \sup \Psi} \bar{p}_H(\psi)/\bar{p}_L(\psi)$ is well-defined, with $\bar{\rho} \in (1, \infty]$. In the baseline model, our assumption $\theta_R < \alpha\theta_F$ ensured that $\theta_R^2 < \alpha\theta_F$, which in turn implied that the ruler would be willing to delegate to parliament for sufficiently high ψ. The analogue of that condition in the general environment is $\bar{\rho} > \theta_R/\alpha$, which we assume hereafter. (If $\bar{\rho} \approx \rho$, as in the uniform case studied in the main text, then this is weaker

---

[24]This ensures that $\bar{p}_H/\bar{p}_L$ increases strictly, per Wijsman (1985).

[25]This ensures that $\bar{p}_L(\psi) \approx 0$, $\bar{p}_H(\psi) \approx 0$, and $\tilde{p}_H(\psi) \approx \bar{p}_H(\psi)$ for sufficiently large ψ.

than the condition imposed above, $\rho > 1/\alpha$.)

We now revisit the results stated in the main text. Broadly speaking, the results about the ruler's willingness to delegate to parliament and the elite willingness constraint do not change substantively in the general environment. However, our baseline results on the set of ψ for which the elite credibility constraint is satisfied do not necessarily carry over.

Lemma 1 (Invasion threats substitute for delegation)**.** *Assume that R does not delegate to parliament and that E funds the government. It is a best response for R to provide public goods if and only if $\theta_X \geq \hat{\theta}_X$, where $0 < \hat{\theta}_X < \infty$.*

Our conditions on functional forms ensure that Lemma A.1 still holds, so there is still a cutpoint condition, $\theta_X \geq \hat{\theta}_X$, defining when it is a best response for an unconstrained ruler to provide public goods if funded. We have $\hat{\theta}_X > 0$ because $\alpha < 1$, and we have $\hat{\theta}_X < \infty$ because $\rho > 1/\alpha$.

Proposition 1. *In equilibrium:*

(a) R will not delegate to parliament if doing so is unnecessary to generate funding (elite credibility fails).

(b) R will not delegate to parliament if doing so is insufficient to generate funding (elite willingness fails).

(c) R may delegate to parliament if doing so is necessary and sufficient to generate funding. In this case:

- *If $\theta_R \leq \alpha$, then R is willing to delegate to parliament regardless of ψ.*

- *If $\theta_R > \alpha$, then R is willing to delegate to parliament if and only if $\psi \geq \hat{\psi}$, where $0 < \hat{\psi} < \infty$.*

(a) and (b) follow as before. For (c), first notice that Equation A.1 is still the condition for the ruler to prefer constrained funds over no funds in the general case. Because Lemma A.2 carries over to the general environment, so the LHS of this condition is still strictly increasing in ψ. Therefore, the condition holds for all ψ if and only if $\theta_R \leq \alpha$. Otherwise, if $\theta_R > \alpha$, then there exists $\hat{\psi} > 0$ such that the condition holds if and only if $\psi \geq \hat{\psi}$. Our assumption that $\bar{\rho} > \theta_R/\alpha$ ensures that $\hat{\psi} < \infty$.

Lemma 2. *If $\psi \geq \hat{\theta}_X + \epsilon$ and the elite willingness constraint (6) holds strictly, then the elite credibility*

constraint (7) *fails.*

Our regularity conditions on F ensure that $\lim_{\psi \to \sup \Psi} F(\hat{\theta}_X; \psi) = 0$, which in turn implies $\tilde{p}_H(\psi) \to \bar{p}_H(\psi)$. Therefore, for any fixed $\delta > 0$, there exists $\psi' < \sup \Psi$ such that $\bar{p}_H(\psi) \cdot \alpha \geq \mathbb{E}\left[U_E(\text{outside option})\right] + \delta$ implies failure of Equation 7 for all $\psi > \psi'$.

Lemma 3. *If E's outside option is to refuse, the elite willingness constraint holds for all ψ.*

As in the baseline model, the condition that $\alpha > 1 - \theta_R$ suffices to ensure that elite willingness (Equation A.4) holds for all ψ.

Lemma 4. *Assume that R does not delegate to parliament and, if funded, chooses public goods with probability $\Pr(\text{public goods}) \in [0, 1]$ for all θ_X. Then as the war threat ψ increases, it becomes more difficult for the elite credibility constraint to hold.*

This result follows as before because Lemma A.2 carries over to the general environment.

Lemma 5. *If E's outside option is to refuse, the elite credibility constraint holds if and only if $\psi \leq \psi^*_{refuse}$, where $\hat{\theta}_X - \epsilon < \psi^*_{refuse} < \hat{\theta}_X + \epsilon$.*

As before, the expected probability of resisting the external threat if the ruler is funded but unconstrained is given by Equation A.2. As in the baseline model, elite credibility (Equation A.5) must hold if there is no external threat, as then $\bar{p}_L(\psi) = 1$ and $\tilde{p}_H(\psi) = 0$. The result that elite credibility cannot hold for sufficiently large ψ also carries over. This is because the probability mass on $\theta_X < \hat{\theta}_X$ vanishes as ψ increases, meaning $\tilde{p}_H(\psi) \approx \bar{p}_H(\psi)$ and therefore $\tilde{p}_H(\psi) > \bar{p}_L(\psi)$ for sufficiently large ψ. However, it is not necessarily true that the set of ψ satisfying elite credibility is an interval, as the single-peaked structure of $\tilde{p}_H$ observed in the baseline case (Equation A.3) does not hold in general.

Proposition 2. *Assume E's outside option is to refuse. If $\theta_R \leq \alpha$, there is an equilibrium in which R delegates to parliament if and only if $\psi \leq \psi^*_{refuse}$. Otherwise, if $\theta_R > \alpha$, such an equilibrium exists if and only if $\hat{\psi} \leq \psi \leq \psi^*_{refuse}$.*

Following the results discussed above, we can pin down the following about the existence of an equilibrium with delegation to parliament:

- If $\theta_R \leq \alpha$, then the ruler willingness constraint holds trivially, so a delegation equilibrium exists if and only if elite credibility is satisfied. Consequently, a delegation equilibrium exists in the absence of an external threat. Additionally, a delegation equilibrium cannot exist if ψ is sufficiently large, as then elite credibility fails.

- If $\theta_R > \alpha$, then ruler willingness fails for sufficiently small ψ, and elite credibility fails for sufficiently large ψ. A delegation equilibrium may fail to exist for any ψ, or may exist at some interior values.

Lemma 6. *If E's outside option is to exit, then the elite willingness constraint holds if and only if $\psi \leq \psi_{exit}^{\dagger}$, where $\psi_{exit}^{\dagger} > 0$.*

Lemma A.4 continues to hold in the general case, and thus so does Lemma 6.

Lemma 7. *Assume E's outside option is to exit. If $\sigma \geq \sigma^* \equiv (\bar{p}_H(\hat{\theta}_X + \epsilon) \cdot \alpha)/(1 - \theta_R)$, then the elite credibility constraint holds for all ψ. Otherwise, if $\sigma < \sigma^*$, then the elite credibility constraint holds if and only if $\psi \notin (\psi_{exit}^*, \psi_{exit}^{\dagger})$, where $\hat{\theta}_X - \epsilon < \psi_{exit}^* < \hat{\theta}_X + \epsilon < \psi_{exit}^{\dagger}$.*

In the general environment, elite credibility (Equation A.7) will still hold if there is no external threat, as then $\tilde{p}_H(\psi) = 0$. Elite credibility will also hold for sufficiently large ψ, as then $\tilde{p}_H(\psi) \approx 0$. However, as discussed above with respect to Lemma 5, in the general case $\tilde{p}_H$ need not be single-peaked. So while elite credibility will hold for sufficiently small and large values of ψ, it may not be the case that the set of ψ for which it fails to hold is an interval.

Proposition 3. *If E's outside option is to exit, then there is an equilibrium in which R delegates to parliament if and only if $\underline{\psi} \leq \psi \leq \overline{\psi}$, where*

$$\underline{\psi} = \begin{cases} 0 & \theta_R \leq \alpha, \\ \hat{\psi} & \theta_R > \alpha, \end{cases} \qquad \overline{\psi} = \begin{cases} \psi_{exit}^* & \sigma < \sigma^*, \\ \psi_{exit}^{\dagger} & \sigma \geq \sigma^*. \end{cases}$$

Following the results discussed above, we can pin down the following:

- If $\theta_R \leq \alpha$, then the ruler willingness constraint holds trivially, so a delegation equilibrium exists if and only if elite credibility and willingness are satisfied. Consequently, a delegation equilibrium exists in the absence of an external threat. Additionally, a delegation equilibrium cannot exist if ψ is sufficiently large, as then elite willingness fails.

- If $\theta_R > \alpha$, then ruler willingness fails for sufficiently small ψ, and elite willingness fails for sufficiently large ψ. A delegation equilibrium may fail to exist for any ψ, or may exist at some interior values.