War, Cooperative State-Building, and Representation

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January 31, 2020

Abstract

Motivated by research on the relationship among wars, taxation, and parliaments in early modern Europe, we develop a new theory of cooperative statebuilding. A ruler decides whether to call parliament, which guarantees public good provision; and a representative elite chooses to fund the government, refuse, or flee. These decisions affect the likelihood of exogenous external takeover. We partially recover existing arguments: a strong war threat increases the ruler's willingness to trade parliamentary constraints for revenues. However, various indirect strategic effects show how war can undermine representation. Strong threats exert two effects that decrease elite demand for parliament: increasing the ruler's willingness to provide public goods even if not constrained by parliament, and undercutting the elite's leverage from refusing to fund the ruler. Strong threats can also break the state by causing the elite to flee, even if the ruler calls parliament. Overall, the relationship between external threats and equilibrium parliament is complex and nuanced—not a simple matter of greater threats encouraging state-building.

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1 INTRODUCTION

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, eventually, full democracy across the region. How did the threat of war affect representative institutions?

Numerous historical observations highlight the association between participation in (and preparation for) warfare, and either greater constraints on the executive or popular participation. Citizen hoplite armies in Athens and other ancient Greek city-states participated in direct democratic forums. Across Western Europe, between the twelfth and fifteenth centuries, kings often called parliament to raise revenues for war. The Glorious Revolution in England preceded a period in which, amid constant warfare with Louis XIV's France, Parliament established primacy over William III and subsequent kings. Mass franchise expansion in Europe and its colonies followed each of the two world wars of the twentieth century.

These cases share several common features. Competitive pressures for international warfare increased the need for rulers to accrue revenues and soldiers. This, in turn, increased the bargaining leverage of societal actors to demand representation in return for providing resources. Earlier in European history, the main actors were landed nobles and urban burghers. Later, the emergence of varied urban classes created new mass actors that could bargain for incorporation. But, whether rulers contemplated convening a parliament, deepening parliamentary powers, or incorporating new classes into the polity, the dire need for resources often induced rulers to grant some form of representation concessions. Thus, many argue that warfare, taxation, and representation go hand-in-hand (Bates and Lien 1985; Ticchi and Vindigni 2008; Van Zanden, Buringh and Bosker 2012; Cox, Dincecco and Onorato 2019).

We provide a new theory of cooperative state-building and representation. We study how the threat of international warfare affects a ruler's choice over whether to introduce parliamentary constraints, given its goal of raising revenues from a domestic elite. Our formal model partially recover the conventional cooperative logic: a stronger war threat indeed increases the ruler's willingness to trade parliamentary constraints for revenues. However, existing theories overlook various indirect strategic effects of war threats that alter the conventional relationship, undercutting either the necessity or sufficiency of calling parliament to gain revenues. By uncovering additional strategic channels, we highlight novel mechanisms through which war pressure can *undermine* prospects for parliamentary creation and revenue-raising. Overall, the relationship between external threats and the decision to call a parliament is complex and nuanced—not a simple matter of greater threats encouraging state-building.

The two strategic actors in our formal model are a ruler and 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. They engage in the following sequential interaction: (1) the ruler decides whether or not to create a parliament, (2) the elite actor decides whether to fund the government, refuse, or flee, and (3) after Nature determines the magnitude of the invasion threat, the ruler decides whether to provide public goods or to privately consume its economic endowment and any revenues from the elite. Nature moves last and determines whether the external invasion succeeds.

The players face the following tradeoffs. For the ruler, creating a parliament ties its hands to provide public goods (assuming the elite funds the government). This commitment device benefits the ruler by increasing the elite's expected utility to funding the government. However, then the ruler suffers an adverse distributional consequence if the invader turns out to be weak—the ruler could have instead consumed its rents privately. The elite's three choices conceptually resemble Hirschman's (1970) distinction among loyalty (fund the government), voice (refuse), and exit (flee), although we highlight a distinct tradeoff among the three. Funding the government results in public goods—which contain both a security and a welfare component—only if the ruler chooses to provide them. However, public goods are not guaranteed if the ruler did not call parliament. Alternatively, the elite has two outside options. It can refuse, that is, not fund while remaining on its land. However, then it is guaranteed to not receive the security benefit of public goods. This raises the probability of consuming nothing because of *external* takeover. Alternatively, the elite can flee. This provides a consumption guarantee (independent of the ruler's actions or the invader's success), but destroys a fraction of the elite's endowment.

In equilibrium, the ruler calls parliament if and only if three conditions are met. First, the *ruler's willingness* constraint requires that it creates parliament if doing so is necessary and sufficient to gain funding. Absent an external threat, this condition holds only if the ruler's endowed rents are low enough. If instead rents are high, then the ruler prefers not to trade constraints for revenue, given the adverse distributional consequence

that providing public goods would entail. Second, the *elite necessity* constraint requires that the elite will not fund the government without parliament. If elite necessity fails, then the ruler will not call parliament because it enjoys the intended benefit of imposing the constraint (receives funding from elite) without incurring the cost (requirement to provide public goods even if the threat is weak). Absent an external threat, elite necessity holds only if the elite's economic endowment is sufficiently large, which creates a high opportunity cost to funding the government. Third, the *elite sufficiency* constraint requires that calling parliament is sufficient for the elite to fund the government. If elite sufficiency fails, then the ruler will not create a parliament because it suffers a cost without securing funding.

Combining these three constraints shows that, in the absence of war pressure, the ruler calls parliament in equilibrium if rents are relatively evenly distributed between the ruler and elite. This creates a baseline, nonbellicose setting for understanding cooperative incentives for the ruler to impose parliamentary constraints, which relates to various existing models. Autocrats can induce agents to make costly investments that benefit the regime not only by creating parliaments (Gailmard 2017), but also by creating parties (Gehlbach and Keefer 2011) or allowing military generals to communicate (Myerson 2008).¹

The main results analyze comparative statics on the expected strength of the invader. One aspect of the conventional wisdom on the war-taxation-parliament relationship holds unambiguously: a stronger expected threat increases the likelihood that the ruler's willingness constraint holds.² A stronger threat amplifies the extent to which providing public goods decreases the probability of external takeover. This effect enhances the ruler's benefit from providing public goods, and therefore increases its willingness to call parliament (assuming the elite necessity and sufficiency conditions each hold).

However, analyzing how the invader affects the *elite*'s demand for parliament demonstrates problems with the conventional cooperative logic. Existing theories do not analyze a first-order consideration: how a war threat—the main explanatory variable in this literature—affects the elite's demand for parliament. We explain how a war threat can undermine either the necessity or sufficiency constraint, and therefore prevent

¹Imposing 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.

²At the outset of the game, there is common knowledge regarding whether each of the three conditions holds. By the "likelihood" of a condition holding, we more precisely mean the size of the parameter range in which it holds.

parliament from emerging in equilibrium.

War threats can undermine the elite necessity constraint through two distinct mechanisms. The first is a substitution effect. A stronger war threat enhances the ruler's fear of external takeover, which increases the probability that a non-constrained ruler will choose to provide public goods. This effect raises the elite's expected utility to funding the government without parliament, which decreases the likelihood that the elite necessity constraint holds. Second, a stronger war threat decreases the elite's expected utility to refusing relative to that of funding the government. Refusing necessarily prevents the elite from enjoying the security benefit of public goods. The value of this security benefits increases in the severity of the invasion threat, and therefore this effect also decreases the likelihood that the elite necessity constraint holds. Finally, the war threat can violate the elite sufficiency condition. If the invader is sufficiently strong, then the elite prefers to flee rather than fund what is likely a losing effort—even if the ruler provides public goods for sure. Following the model analysis, we provide numerous historical and contemporary examples that highlight the empirical relevance of these new mechanisms.

Beyond engaging with existing arguments about cooperative state-building and representation in Western Europe, we also situate our approach within the broader literature on democratization and state-building. To isolate the effects of war on *cooperative* incentives for state-building, we do not include options for either (1) the elite actor to coerce the ruler or (2) the ruler to coerce the elite actor. By contrast, societal actors threat-ening the government features prominently in theories in which the threat of revolt can either induce rulers to expand the franchise (Acemoglu and Robinson 2006; Boix 2003) or to comply with established democratic procedures (Weingast 1997; Fearon 2011). The ability of rulers to bypass parliament and coercively raise revenues features prominently in other strands of the European state-building literature (Mann 1986; Downing 1993; Ertman 1997; Hoffman 2015). We conclude by bridging our framework for cooperative statebuilding.

2 Setup

2.1 SEQUENCE OF MOVES AND PAYOFFS

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 call a parliament, which constrains R's final action described in step 3.

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. There are two possibilities for not funding the government, both of which move the game directly to step 4. E can refuse, that is, not fund the government and then attempt weather the external threat (described in step 4). Alternatively, E can flee while taking $\sigma \in (0, 1)$ of its wealth with it. The benefit of fleeing is that E's consumption is independent of external takeover. The fact that E stays on its land if it refuses justifies why it still faces the external threat, whereas fleeing enables it to go somewhere outside the reach of the threat.

3. Public good choice. At this point in the game, Nature draws and reveals $\theta_X \ge 0$, the strength of the outsider threat. Then, if R did not call a parliament and E chose to fund the government, R decides between providing a public good and privately consuming its rents as well as expropriating E's wealth. If instead R called a parliament in step 1, then this decision node is trivial, as R's only option is to provide public goods. Similarly, if E did not fund the government in step 2, then this decision is trivial because R cannot choose to provide public goods.

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 E would rather consume the public good with certainty than its own endowment: $\alpha > 1 - \theta_R$.

The outsider's strength, θ_X , is drawn according to a cumulative distribution function F. This distribution is common knowledge from the outset of the interaction, but the exact value of θ_X is only realized at this stage of the game. Consequently, when R chooses whether to call a parliament and E chooses whether to fund the government, there is some uncertainty about just how strong an external threat they will ultimately face. We assume F is strictly increasing and continuously differentiable on \mathbb{R}_+ , with associated density function f.³ Let this distribution be characterized by a parameter $\psi \in \Psi \subseteq \mathbb{R}$, such that greater values of ψ correspond to a stronger external threat. Formally, we assume F satisfies the strict monotone likelihood ratio property

³Except in the limiting case of no external threat, when $\theta_X = 0$ with probability one.

in ψ , so that if $\psi' > \psi$ then the ratio $f(\theta_X; \psi') / f(\theta_X; \psi)$ is strictly increasing in θ_X .⁴

4. 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 equals $p_L(\theta_X) \equiv \frac{\theta_R}{\theta_R + \theta_X}$. 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.

As regularity conditions, we assume low values of ψ correspond to virtually no chance of takeover, and that high values correspond to nearly certain takeover. Let $\bar{p}_L(\psi)$ denote the expected value of $p_L(\theta_X)$ when the prior distribution of θ_X has parameter ψ , so that $\bar{p}_L(\psi) = \int_0^\infty p_L(\theta_X) dF(\theta_X; \psi)$, and define $\bar{p}_H(\psi)$ analogously. We assume that for all $\epsilon \in (0, 1)$, there exist $\psi', \psi'' \in \Psi$ such that $1 - \epsilon < \bar{p}_L(\psi) < \bar{p}_H(\psi)$ for all $\psi < \psi'$ and $\bar{p}_L(\psi) < \bar{p}_H(\psi) < \epsilon$ for all $\psi > \psi''$.

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. If E flees, then it consumes $\sigma \cdot (1 - \theta_R)$ and R consumes θ_R . If E refuses, then it consumes $1 - \theta_R$ and R consumes θ_R . If instead external takeover does occur, then both players consume 0 except in one circumstance: if E exits, then its consumption equals $\sigma \cdot (1 - \theta_R)$ independent of whether or not external takeover occurs.

2.2 **DISCUSSION OF ASSUMPTIONS**

Existing research debates the cooperative versus coercive origins of states. The former view is inherently Lockean and conceives of states as contracts between consenting parties, whereas the latter view is inherently Hobbesian and conceives of states as—using Tilly's (1992) terminology—protection rackets. We do

⁴For example, this property is satisfied if *F* is an exponential distribution with rate parameter $1/\psi$, so that $f(\theta_X; \psi) = \frac{\exp(-x/\psi)}{\psi}$ for all $\psi \in \Psi = \mathbb{R}_{++}$.

Figure 1: Stronger external threat makes internal cooperation more important



Note: $\theta_R = 0.5, \theta_F = 1.25..$

not take a stand on this broader consideration, but we note that our model only examines the cooperative origins of states. There is no strategic choice for either the ruler or elite to coerce the other actor, nor can the ruler force the elite to sit in parliament.⁵ The absence of coercive choices in the model enables us to isolate specific strategic tradeoffs involved with cooperative statebuilding. We discuss coercive statebuilding in the conclusion.

The parameter θ_R expresses the degree of political fragmentation. Whereas high θ_R indicates a ruler with a centralized bureaucracy and tax system, low θ_R indicates a weaker ruler that is more reliant on bargaining with the elite to gain revenues. The historical literature commonly distinguishes between the relatively centralized polities in China and the Middle East in the early modern period compared to fragmented states in Europe (Stasavage 2016; Blaydes 2017; Dincecco and Wang 2018). Such fragmentation could arise because of imperial collapse (e.g., Roman and Carolingian empires) or because economic changes empower a new elite. For example, Acemoglu, Johnson and Robinson (2005) discuss how massive profits from Atlantic trade in the seventeenth century strengthened English and Dutch merchants. Earlier, the commercial revolution in Europe had a similar effect on generating wealth for cities that was, at least initially, outside the reach of the

⁵Boucoyannis (2015) characterizes approaches such as ours as bargaining models of representation, in contrast to her argument that kings in early modern Europe needed an initial coercive advantage to compel nobles to sit in parliament.

sovereign ruler. In contemporary polities, high θ_R could result from oil production, collectivized agriculture, or cash crop marketing boards.

We also assume that the distribution of economic power and the distribution of military power is identical, with both parameterized by θ_R . No results hinge on this assumption, that is, we could introduce separate and uncorrelated parameters for each. However, it is difficult to envision scenarios in which these two are not highly correlated. Even if the elites are merchants that do not supply arms of their own, the king could use their money to pay knights to show up (who might otherwise shirk their feudal military obligations) or to buy mercenary soldiers (Stasavage 2011, 26).

However, we do consider variation in economic activities, which the flee parameter σ expresses. This relates to Bates and Lien's (1985) discussion of how asset specificity affected the bargaining leverage of elites when negotiating taxation with kings in early modern Europe, and Boix (2003) analyzes how asset mobility has affected contemporary democratization. The historical Europe literature commonly distinguishes between merchant elites with relatively high asset mobility and landed nobles with low asset mobility. 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, both because they tended to be easier to defend and because 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. In addition to the type of wealth that merchants had, the small average size of European states in the early modern era enhanced this flee option (Cox, Dincecco and Onorato 2019, 5). The value of fleeing also depends on the elite's distance from the war zone (Bates and Lien 1985, 56). In the extreme case where the invader does not pose a threat to the elite, we would have $\sigma = 1$. Outside of Europe, actors had a viable flee option in areas with low population density, as in many parts of Africa (Dincecco and Onorato 2018, 102-7); or in mountainous areas, as in the Zomia region of Southeast Asia (Scott 2010).

Public goods in our model entail both an economic and security component. There are various ways to ground this assumption. First, the allocation of personnel could affect both. Recruiting military officers and cabinet officials from broad sectors of society should improve the quality of defense while also providing a mechanism for widely distributing revenues, whereas narrow personalist regimes usually exhibit deficiencies on both fronts. Second, the same economic activities could affect both. In eighteenth century

Britain, Parliament bargained for a central Bank of England and considerable expenditure on transportation infrastructure (Pincus and Robinson 2011). These enhanced economic growth as well as helped Britain fight wars more effectively. Third, the economic component of the public good, α , could itself encompass internal security. Hoffman (2015, 135) argues that Charles V, a fourteenth century French king, gained tax revenues "by showing that he could use the money effectively to provide the public good of security. In particular, he and his emissaries dealt ruthlessly with widespread brigandage by the bands of furloughed soldiers who ravaged the countryside during periods of truce. Protection against the brigands convinced his subjects that it was worth paying peacetime taxes." Fourth, α could constitute the aims and spoils of war. Merchants could benefit from military victory by gaining a commercial advantage or a share of monopoly profits (Hoffman 2015, 23-24). For example, in Britain, William III and Whigs in Parliament shared the aim of defeating Louis XIV's attempt to monopolize world trade (Pincus and Robinson 2011).

We simplify by assuming that the actors commonly value the public good and that they suffer equally from losing a war (unless the elite exercises its flee option). 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 harbor different values of the public good and of losing 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. This creates incentives for the ruler to use funds to fight wars that the elites do not support (Rosenthal 1998).⁶ Beyond Europe, in divided societies, actors may value public goods differently (as Alesina, Baqir and Easterly 1999 discuss for ethnic differences) or may benefit from low state capacity to prevent redistribution away from themselves (Besley and Persson 2011; Suryanarayan and White 2019).

We also impose the stark assumption that the existence of parliament necessarily constrains the ruler to provide public goods. Stasavage (2011) highlights two impediments in early modern Europe. First, it was more difficult to constrain the king in large states because of the long distance between the capital and the

⁶Correspondingly, the payoffs in our model should be interpreted relatively rather than absolutely. Between 1500 and 1790, not a single Western European ruler lost his or her throne following a loss in international warfare (Hoffman 2015, 27). Thus, the assumed payoff of 0 is relative to higher spoils that would have been gained from war, as opposed to assuming the ruler loses their head. We could add additional parameters to distinguish the costs of losing from the benefits of winning. location of individual representatives. Second, one important goal that elites sought through parliamentary representation was to prevent kings from reneging on loan repayments. However, this required debt-holding elites to be the ones represented in parliament. Beyond that specific historical context, general models of self-enforcing democracy (Przeworski 1991; Weingast 1997; Acemoglu and Robinson 2006) explain how rulers can undermine democratic institutions.

We do not contest these premises about the moral hazard problem of offensive wars, possible disagreements over public goods, or the difficulties of constructing self-enforcing parliamentary constraints. Instead, we note that our setup creates a hard case for, in equilibrium, the elite to not fund the government or for the ruler to not call parliament—yet we still establish numerous possible reasons that either would fail to hold.

3 ANALYSIS

3.1 RULER'S WILLINGNESS TO CALL PARLIAMENT

We now consider the determinants of R's choice to call a parliament. Regardless of R's choice here, if E chooses not to fund, then R consumes its initial endowment as long as the external takeover attempt is unsuccessful.

$$\mathbb{E}\left[U_R(E \text{ doesn't fund} \mid \text{no parliament})\right] = \mathbb{E}\left[U_R(E \text{ doesn't fund} \mid \text{parliament})\right] = \bar{p}_L(\psi) \cdot \theta_R.$$
(1)

It is also simple to characterize R's payoff in case it calls a parliament and receives funding. In this case, R has no choice but to provide public goods, so it ultimately consumes α as long as the invasion fails:

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

The final payoff to characterize for R is for when it receives funding after not calling a parliament. Lacking parliamentary constraints, R may either provide public goods or consume all production privately. This choice will be a function of the realized value of the outsider's strength, θ_X . Formally, the condition for R

to prefer public good provision over expropriation is $p_H(\theta_X) \cdot \alpha \ge p_L(\theta_X) \cdot 1$, which is equivalent to

$$\frac{p_H(\theta_X)}{p_L(\theta_X)} \ge \frac{1}{\alpha}.$$
(3)

This leads to our first result: a stronger threat of invasion increases an unconstrained ruler's propensity to provide public goods, and Figure 2 depicts the result.

Lemma 1 (Invasion threats substitute for parliament). Assume that R does not call parliament and that E funds the government. If $\alpha \leq \frac{\theta_R}{\theta_F}$, then R's best response is always to expropriate. Otherwise, if $\alpha > \frac{\theta_R}{\theta_F}$, then there is a cutpoint $\hat{\theta}_X > 0$ such that R's best response is to provide public goods if and only if $\theta_X \geq \hat{\theta}_X$.

Figure 2: Probability the ruler provides public goods (if funded and unconstrained)



Note: $\alpha = 0.8, \sigma = 0.65, \theta_F = 1.25, \theta_X \sim \text{Exponential}(\frac{1}{\psi})$. Darker colors in the heat map correspond with a higher probability that *R* (if funded and unconstrained) provides public goods.

In the absence of external pressure, with 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.⁷ As the invader's strength grows,

⁷If 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.

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 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 a stronger outsider makes parliament less necessary.

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 call a parliament. In this case, the government expects to consume $p_L(\theta_X) \cdot 1$ if θ_X is low and to consume $p_H(\theta_X) \cdot \alpha$ if θ_X is high:

$$\mathbb{E}\left[U_R(E \text{ funds} \mid \text{no parliament})\right] = \int_0^\infty \max\{p_L(\theta_X), p_H(\theta_X) \cdot \alpha\} \, dF(\theta_X; \psi). \tag{4}$$

This provides what we need to establish the conditions under which R calls parliament in equilibrium. The first condition is *elite necessity*: calling a parliament must be necessary to secure funding. Otherwise, if funding is assured either way, R would prefer to remain unconstrained. The second condition is *elite sufficiency*: calling a parliament must actually induce E to provide funds.⁸ Below, we formalize the conditions under which either of these hold for E. The third condition highlights the role of both initial rents and the external threat for calling parliament.

⁸ Technically, R is indifferent if E never funds, as the outcome is the same whether a parliament is called or not. 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 call a parliament.

Proposition 1. In equilibrium:

- (a) R will not call parliament if doing so is unnecessary to generate funding: $\mathbb{E}[U_R(E \text{ funds} \mid \text{no parliament})] > \mathbb{E}[U_R(E \text{ funds} \mid \text{parliament})].$
- (b) R will not call parliament if doing so is insufficient to generate funding.
- (c) R may call parliament if doing so is necessary and sufficient to generate funding. In this case:
 - If $\alpha < \theta_R$ and there is no external threat, then the ruler is unwilling to call parliament.
 - If $\alpha < \theta_R$ and there is an external threat, then the ruler's willingness to call parliament increases with the invader's anticipated strength, ψ . Specifically, if $\mathbb{E}[U_R(E \text{ funds } | \text{ parliament})] > \mathbb{E}[U_R(E \text{ doesn't fund})]$ at ψ , then the same is true for all $\psi' > \psi$.
 - If $\alpha \ge \theta_R$, then the ruler is willing to fund parliament for all $\psi \in \Psi$.

Part c of Proposition 1 highlights two important comparative statics for funding. The first relates to the ruler's endowed rents. In the absence of an external threat, the ruler is willing to call parliament if and only if her endowed rents are less than she would expect to receive from the public good. Otherwise, R's endowed rents are so high that it is unwilling to tie its hands because of the anticipated adverse distributional consequences of providing public goods.

Second, this result also confirms a key element of the conventional bellicose logic: stronger external threats promote the ruler's incentive to call a parliament (assuming parliament is necessary and sufficient to generate funding). This result is driven by a simple but important property of the contest for territorial control: the incremental addition of E's military capability makes the most difference when the outsider is strongest.⁹ 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 3 illustrates how the ruler's willingness to call a parliament varies as a function of the ruler's strength and the outsider's.

⁹Formally, the critical condition is that the ratio of resistance probabilities, p_H/p_L , is strictly increasing in the outsider's strength, θ_X . See Lemma A.1.

Figure 3: Ruler's willingness to call parliament



Note: $\alpha = 0.8, \theta_F = 1.25, \theta_X \sim \text{Exponential}(\frac{1}{\psi})$. The figure shows that when there is no outsider threat ($\psi = 0$), R is willing to call parliament only if its rents are sufficiently low (low θ_R). Otherwise, the adverse distributional effects of providing public goods is too high, despite the joint welfare gains. As the outsider threat increases, R becomes more willing to call parliament because the security benefits of providing the public good increase in magnitude.

3.2 ELITE DEMAND FOR PARLIAMENT

So far, our analysis is consistent with the bellicose model of state formation. As long as calling a parliament is necessary and sufficient to generate funding for R, stronger external threats promote the establishment of parliamentary constraints. But this leaves open the question of how external threats affect E's decisions. We establish, contrary to the bellicose logic, how stronger external threats can diminish the sufficiency or necessity of parliament for E to fund the government.

3.2.1 Elite's Preferred Outside Option

We first characterize E's preferred outside option. It has two alternatives to funding R: refuse funds but remain, or flee. Calling a parliament does not affect E's payoff to either, so E's preferred outside option is independent of R's initial choice. Fleeing leaves E with a proportion σ of its initial wealth:

$$\mathbb{E}[U_E(\text{flee})] = \sigma \cdot (1 - \theta_R).$$

Similarly, refusing to fund while remaining leaves E's wealth at the mercy of R's strength against the outsider:

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

Unlike with fleeing, the payoff to refusing depends on the strength of the external threat. Therefore, as formalized in the following lemma, E prefers fleeing over refusal if the anticipated invasion threat is great enough.

Lemma 2. There is a unique $\hat{\psi}$ such that E's preferred outside option is to refuse if $\psi < \hat{\psi}$ and otherwise to flee.

3.2.2 Elite Sufficiency Constraint

We now consider the conditions under which calling a parliament is sufficient to generate funding—i.e., when the elite is willing to fund a ruler who has called a parliament. Because R must provide public goods if she has called for a parliament and received funding, the expected payoff to E from funding a constrained ruler is simply the value of the public good, weighted by the *ex ante* expected probability of resisting takeover:

$$\mathbb{E}\left[U_E(\text{fund} \mid \text{parliament})\right] = \bar{p}_H(\psi) \cdot \alpha.$$

The sufficiency constraint concerns whether this is better for E than its outside option. Formally, the elite sufficiency condition is

$$\mathbb{E}\left[U_E(\mathsf{fund} \mid \mathsf{parliament})\right] \ge \max\left\{\mathbb{E}[U_E(\mathsf{flee})], \mathbb{E}[U_E(\mathsf{refuse})]\right\},\$$

which is equivalent to

$$\bar{p}_H(\psi) \cdot \alpha \ge \max\{\bar{p}_L(\psi), \sigma\} \cdot (1 - \theta_R).$$
(5)

In the limiting case of no outside threat, if the government calls a parliament, then the elite's choice is between guaranteed consumption of α if it funds and of $1-\theta_R$ if it does not. As we have assumed $\alpha > 1-\theta_R$, the elite would always prefer to fund a constrained government in the absence of an outside threat.¹⁰ This

¹⁰In the proof of Proposition 2 in the Appendix, we discuss what changes if instead $\alpha < 1 - \theta_R$.

logic extends more generally: as long as the elite's preferred outside option is to refuse rather than to flee, the elite sufficiency constraint is sure to hold.

On the other hand, once the outside threat is strong enough that the elite's preferred outside option is to flee, the elite sufficiency constraint is no longer guaranteed to hold. The constraint becomes harder to hold as the invader grows stronger, and at a certain point the condition is sure to fail. The logic of this comparative static is simple. When $\psi > \hat{\psi}$, meaning the elite would rather flee than refuse, the outside option payoff is invariant to the outsider's strength. Meanwhile, for the same reasons as before, the payoff to funding the ruler decreases with the strength of the external threat. Consequently, an increase in ψ pushes the elites toward fleeing rather than funding even a constrained government. The following proposition formalizes these claims.

Proposition 2 (Elite sufficiency constraint). There exists $\psi^* > \hat{\psi}$ such that the elite sufficiency constraint holds if and only if $\psi \le \psi^*$.

An important corollary to this result is that the government will never be funded in equilibrium—and thus a parliament will never be called—if the outsider is strong enough. Recall from Proposition 1 that the government has no reason to call a parliament if doing so is insufficient to garner funds from the elite. We have just shown in Proposition 2 that a sufficiently strong outside threat makes calling a parliament insufficient. An elite that is unwilling to fund a constrained ruler will necessarily be unwilling to fund an unconstrained one, who retains the option to expropriate and thereby yields a strictly worse outcome for the elite in expectation. Altogether, this means there will be neither parliaments nor successful taxation if the outside threat is strong enough, contrary to the usual bellicose logic.

Proposition 3 (Strong threats break states). If $\psi > \psi^*$, then E will not fund the government in equilibrium, and a parliament will not be called.

Figure 4 illustrates the elite sufficiency constraint as a function of the invader's anticipated strength, ψ , and the ruler's initial endowment, θ_R . Per Proposition 2, we see that calling a parliament is sufficient to induce funding if and only if the outside threat is weak enough. Additionally, the greater the ruler's initial endowment, the stronger the threat it takes to break the elite sufficiency constraint.

Figure 4: Elite sufficiency constraint



Note: $\alpha = 0.8, \sigma = 0.65, \theta_F = 1.25, \theta_X \sim \text{Exponential}(\frac{1}{\psi})$. The figure shows that if the outsider threat is strong enough (high ψ), then *E* will not fund *R* even if it calls parliament. The probability of outsider takeover is too high relative to the exit option of fleeing, in which case *E*'s consumption is independent of the external threat. The range of parameter values in which the sufficiency constraint is violated decreases in θ_R because higher θ_R implies a less valuable flee option for *E*.

3.2.3 Elite Necessity Constraint

Calling a parliament is necessary to generate funding when E would rather take its preferred outside option over funding an unconstrained R. Formally, the elite necessity constraint is

 $\max \{ \mathbb{E}[U_E(\text{flee})], \mathbb{E}[U_E(\text{refuse})] \} \ge \mathbb{E}[U_E(\text{fund} | \text{no parliament})].$

Because an unconstrained R only provides public goods when the realized external threat is high enough, and otherwise expropriates E's contribution, E's payoff from funding an unconstrained R is

$$\mathbb{E}[U_E(\text{fund} | \text{no parliament})] = \begin{cases} 0 & \alpha \le \frac{\theta_R}{\theta_F}, \\ \alpha \int_{\hat{\theta}_X}^{\infty} p_H(\theta_X) \, dF(\theta_X; \psi) & \alpha > \frac{\theta_R}{\theta_F}. \end{cases}$$
(6)

We see that the elite necessity constraint holds trivially if there is no external threat or if $\alpha \leq \frac{\theta_R}{\theta_F}$, as then any contribution to an unconstrained ruler is sure to be expropriated. Otherwise, if an external threat is present

and $\alpha > \frac{\theta_R}{\theta_F},$ the elite necessity constraint is equivalent to

$$\max\{\sigma, \bar{p}_L(\psi)\} \cdot (1 - \theta_R) \ge \alpha \cdot \mathbb{E}[p_H(\theta_X) \,|\, \theta_X > \hat{\theta}_X] \cdot \Pr(\theta_X > \hat{\theta}_X). \tag{7}$$

An increased external threat has countervailing effects on the elite necessity constraint. Suppose the elite's preferred outside option is to flee, so the constraint is

$$\sigma \cdot (1 - \theta_R) \ge \alpha \cdot \underbrace{\mathbb{E}[p_H(\theta_X) \mid \theta_X > \hat{\theta}_X]}_{\text{decreases with } \psi} \cdot \underbrace{\Pr(\theta_X > \hat{\theta}_X)}_{\text{increases with } \psi}.$$

Here we see two distinct effects of a stronger invader. On one hand, the direct effect of a stronger threat is to reduce p_H , the chance of resisting takeover in case the ruler provides public goods. The greater risk of takeover makes funding the government less attractive relative to fleeing, making it easier for the elite necessity constraint to hold. On the other hand, there is also an indirect effect—a stronger threat makes the ruler more likely to provide public goods. As internal cooperation becomes more important in the presence of a pressing threat, an unconstrained government is less likely to exercise the option to expropriate the elite's funds. The indirect effect thus cuts in the opposite direction of the direct effect, making the elite necessity constraint harder to satisfy. Insofar as a stronger threat makes the ruler more likely to provide public goods

When the elite's preferred outside option is to refuse rather than to flee, the invader's strength has an additional effect cutting against the elite necessity constraint. In this case the constraint is

$$\underbrace{\bar{p}_L(\psi)}_{\text{decreases with }\psi} \cdot (1-\theta_R) \ge \alpha \cdot \underbrace{\mathbb{E}[p_H(\theta_X) \,|\, \theta_X > \hat{\theta}_X]}_{\text{decreases with }\psi} \cdot \underbrace{\Pr(\theta_X > \hat{\theta}_X)}_{\text{increases with }\psi}.$$

The effects on the elite's expected utility from providing funds to an unconstrained ruler are the same as before. But now the invader's strength also negatively affects the elite's outside option payoff, as it reduces p_L , the probability of successful resistance when the ruler fails to provide public goods. This is an additional channel through which a stronger outsider can reduce elite demand for parliament. However, even in this case, the overall effect of a stronger outsider on the elite necessity constraint is ambiguous; none of the three effects is guaranteed to dominate the others. Figure 5 illustrates the elite sufficiency constraint as a function of the invader's anticipated strength and the ruler's initial endowment, displaying the sometimes

nonmonotonic relationship between the external threat and the necessity of a parliament for funding.



Figure 5: Elite necessity constraint

Note: $\alpha = 0.8, \sigma = 0.65, \theta_F = 1.25, \theta_X \sim \text{Exponential}(\frac{1}{\psi})$. The figure shows the complicated relationship between outsider strength (ψ) and the elite necessity constraint. We begin by considering $\psi = 1$, at which point E's preferred outside option is fleeing. There are two countervailing effects as we increase θ_R . First, higher θ_R decreases E's expected utility to fleeing because it has less to consume after fleeing. Second, the probability that an unconstrained ruler provides public goods decreases (see Figure 2). Combining these countervailing effects leads to a non-monotonic relationship in θ_R : at low θ_R , E demands parliament in return for funding because the opportunity cost of expropriation is really high; at high θ_R , E demands parliament in return for funding because the probability with which an unconstrained ruler will provide public goods is really low; and in between, neither effect is strong and E will fund an unconstrained ruler. Now consider what happens when we fix $\theta_R = 0.4$ and allow ψ to increase. Restricting $\psi > \hat{\psi}$, there are again two countervailing effects. First, as ψ increases, an unconstrained ruler becomes more likely to provide public goods (see Figure 2). Second, because E's value to fleeing is independent of ψ , high ψ causes E to exhibit greater demand for parliament in return for funding. Combining these countervailing effects leads to a non-monotonic relationship in ψ : at low ψ , the elite necessity constraint holds because the probability that an unconstrained ruler provides public goods is really low; at high ψ , the elite necessity constraint holds because E is reluctant to fund even a constrained government (see Figure 4), let alone an unconstrained one; and in between, neither effect is strong and E will fund an unconstrained ruler.

Even these ambiguous results stand in clear contrast with the bellicose logic. Here we see a channel by which stronger external threats may promote the breakdown of at least one condition for R to call a parliament in equilibrium. The problem, from the perspective of state formation, is that a stronger external threat makes public good provision *too* attractive, even in the absence of parliamentary constraints. A greater prospect of invasion makes the ruler more likely to choose public goods on her own, which in turn undermines the elites' threat to withhold funding if a parliament is not called.

3.3 EQUILIBRIUM PARLIAMENT

Figure 6 combines the ruler's willingness constraint with the elite necessity and sufficiency constraints to illustrate when it is an equilibrium to call a parliament. The invader's strength and the ruler's initial endowment both have nonmonotonic relationships with whether a parliament emerges in equilibrium. A ruler with a high initial endowment is unwilling to accept the constraints that come with a parliament, as the security gain from elite support is minimal and consumption of θ_R is relatively attractive. However, if the ruler's initial endowment is too low, then the promise of a parliament may still be insufficient to induce funding by an elite that would prefer to flee. In addition, increases in θ_R cause elite necessity to fail at some points, and have the opposite effect at others.



Figure 6: Equilibrium conditions for calling a parliament

Note: $\alpha = 0.8, \sigma = 0.65, \theta_F = 1.25, \theta_X \sim \text{Exponential}(\frac{1}{\psi})$. This figure combines the previous three figures to show the conditions under which *R* calls parliament in equilibrium. It shows three distinct regions in which there is no parliament. First, the ruler is unwilling to call parliament (see Figure 3). Second, calling parliament is insufficient to induce funding because *E* will flee regardless (see Figure 4). Third, calling parliament is unnecessary to induce elite funding, and therefore *R* does not call parliament (see Figure 5).

We know from Proposition 3 that a parliament will not form if the invasion threat is strong enough. Short of this threshold, however, a marginally stronger external threat may encourage or discourage a parliamentary equilibrium. For example, when ψ is low and the ruler's willingness constraint just barely binds, a slightly stronger external threat may push the ruler to be willing to accept constraints, thereby promoting a parliamentary equilibrium. On the other hand, even when the outsider is weak enough that a parliament is sufficient for funding, a marginal increase in the external threat may make parliament unnecessary for funding, thereby breaking a parliamentary equilibrium. Altogether, the relationship between external threat and the decision to call a parliament is complex and nuanced—not a simple matter of greater threats encouraging state-building.

4 DISCUSSION

We engage with and provide a new theoretical perspective on how war threats affect prospects for cooperative statebuilding and representation. Existing theories focus solely or at least primarily on how war threats affect the *ruler's* willingness to call parliament—with the goal of raising revenues from elites—but we know much less about how war threats affect *elite* demand for parliamentary constraints. Typically, scholars assume that elites have a fixed outside option to move their wealth, which generates leverage to demand parliamentary constraints (Bates and Lien 1985), although more recent work provides a more nuanced perspective on what merchant elites actually sought to gain through membership in the king's council (Cox, Dincecco and Onorato 2019). But no one has analyzed the first-order consideration of how a war threat, the main explanatory variable in this literature, affects the elite's demand for parliament. We provide two new results. First, war threats can undercut the necessity of parliament to induce funding from the elite (Equation 7). This occurs both by making the ruler more likely to provide public goods and by undercutting the elite's outside option to refusing. Second, invasion threats can undercut the sufficiency of parliament to induce funding from the elite (Equation 5; Proposition 2). The perils of war can cause the elite to flee rather than to fund a constrained government, in which case external threats break rather than build the state.

We conclude by discussing empirical examples of these new mechanisms and by bridging our approach with theories of coercive statebuilding.

4.1 EXAMPLES OF WAR UNDERCUTTING ELITE NECESSITY

In the discussion of model assumptions, we argued that two assumptions will more closely match reality when the aims of a war are defensive rather than offensive: the ruler and elite share equally in the benefits from winning the war, and suffer equally if they lose. The French king's ability to levy taxes during the Hundred Years' War with England (1337–1453) provides a historical example of an invasion undercutting the elite necessity 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 with weak constraints on the monarch (in terms of the model, not calling 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 absence of massive coercion that later French monarchs used toward elites during the Thirty Years War, why would elites that lacked a forum for centralized organization grant such privileges to the king? 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."

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).¹¹

There are numerous contemporary examples of this mechanism. Prior to World War I, German socialists (E) engaged in considerable organization to pressure the government (R) for political incorporation. However, when the war broke out, the German Socialist Party pledged nationalist solidarity. An important contributor

¹¹Cox, Dincecco and Onorato (2019) reference an example from De Krey (2007, 96-7) of the converse point that, for offensive wars, elite cannot trust rulers to provide desired public goods: "Charles II of England procured money from parliament on the false statement that he intended to attack France, then used the money to attack the Dutch instead."

to this decision was that they interpreted the war primarily in defensive terms against Russia. According to Strachan (2014):

"Socialists and trade unionists might feel beleaguered in Germany, but they knew that they would suffer far more under the heel of tsarist autocracy. The defence of what they had gained for the working class, both politically and materially, now required them to protect the nation ... [The German Socialist Party] hoped that, by opting for collusion rather than confrontation with the Reich, it would secure constitutional reform, but its decision was unconditional."

In apartheid South Africa, English descendants (E) faced a similar dilemma, even though the "invasion" threat (as they perceived it) was internal rather than external. Despite gaining a minority of the votes in the 1948 elections, the extremist and Afrikaaner-dominated National Party (R) gained a plurality of seats in parliament and proceeded to shut the United Party (largely composed of English descendants) out of important cabinet positions for decades.¹² Yet, white settlers as a whole were a small minority relative to the African majority (~80% of the population), who they perceived as a major outsider threat. At independence and throughout the apartheid period, white politicians made a concerted decision to focus on white versus African racial distinctions rather than English versus Afrikaaners, despite the dominance of the latter during apartheid (Marx 1998; Lieberman 2003).

Other theories focused on contemporary dictatorships, rather than early modern Europe, propose a similar mechanism. Bellin (2000) argues that one key factor that causes capitalists (E) to support an incumbent dictator (R) is fear of a threat from below. "Where poverty is widespread and the poor are potentially well mobilized (whether by communists in postwar Korea or by Islamists in contemporary Egypt), the mass inclusion and empowerment associated with democratization threatens to undermine the basic interests of many capitalists" (181). The threat from below causes capitalists to tolerate their lack of secure property rights under dictatorship. Similarly, in the 1960s, both Malaysia and Singapore reversed earlier democratic institutions to create authoritarian regimes—with the support of elites. Slater (2010) argues that the logic of these protection pact regimes follows from the threat from below: "Shared perceptions of endemic threats from below provide the most compelling explanation both for the internal strength of Malaysia's ruling parties, and for the robustness of the coalition adjoining them" (92).

¹²The Ethnic Power Relations dataset codes English speakers as "powerless" from 1948 until the regime transition in 1994.

4.2 EXAMPLES OF WAR UNDERCUTTING ELITE SUFFICIENCY

Early modern Europe does not appear to provide any clean examples of warfare breaking states specifically by inducing elites to flee. However, comparing European countries to conditions elsewhere is illuminating.¹³ Scholars routinely highlight how commercial wealth in England promoted (at least over the long run) a strong parliament. As a trading island state, monarchs needed to strike bargains with merchants and other urban residents to collect customs revenues. The credible threat for merchants to flee an autocratic state provided bargaining leverage to demand parliamentary representation. When the pressure of warfare heightened rulers' needs for revenue, parliamentary constraints followed (Bates and Lien 1985; Acemoglu, Johnson and Robinson 2005). Thus, according to existing arguments, σ was relatively high in England and this enhanced parliamentary development.

However, our theory shows that σ exerts countervailing effects on equilibrium parliament. On the one hand, higher σ makes elite necessity more likely to hold by (weakly) increasing the value of E's outside option to not funding. This is, implicitly, the mechanism that Bates and Lien (1985) propose. On the other hand, higher σ also makes the elite sufficiency condition less likely to hold. Thus, counterfactually, our model suggests that even higher σ would have adversely affected parliamentary development in England. Then, when facing a strong outsider threat, merchants should have fled rather than demanded parliamentary constraints—thus breaking the state rather than creating a cooperative one.

Pre-colonial Africa provides a set of cases for which σ was generally quite high. Herbst (2000) discusses the viability of fleeing in precolonial Africa: "The combination of large amounts of open land and rainfed agriculture meant that, in precolonial Africa, control of territory was often not contested because it was easier to escape from rulers than to fight them ... They could move and farm on other pieces of land relatively easily because it was not necessary to sink significant investments into the land" (39). Asiwaju (1976) provides a specific example of external pressure triggering mass migration: French colonization of West Africa. Even in relatively centralized states such as with the Sanwi, existing African states had little chance of defeating the foreign invader even if the ruler and elites banded together. Therefore, in response to the harsh conditions of French colonial rule and the comparatively better conditions under British colonial rule, many migrated. Citing interviews from the 1950s among persons that had migrated to the Gold Coast

¹³See also Dincecco and Onorato (2018, 97-108).

(British-controlled) from Upper Volta (French-controlled), Asiwaju (1976, 580) states: "a good number of settlers there had left French territory originally to escape heavy taxation, forced labour, conscription and the exactions of French-made local chiefs."¹⁴

4.3 CONNECTIONS TO COERCIVE STATEBUILDING

Our model intentionally omits any coercive options to isolate novel mechanisms that determine cooperative statebuilding and representation. But many scholars highlight the importance of coercion in the European statebuilding process (Mann 1986; Downing 1993; Ertman 1997; Hoffman 2015). Two prominent examples are Prussia and France during the Thirty Years' War, the birth of absolutist regimes in both cases. Their kings were unable to raise sufficient funds from their parliaments, and each responded by using their military and central officials to coercively collect taxes. An extension of our model with two periods provides insight into the dilemmas that the ruler and elites face in such cases. If the elite funds the government in period 1, then if the regime survives, θ_R increases to some $\theta'_R > \theta_R$ in period 2; and R can reconsider its parliament decision in period 2. In the examples of Prussia and France, such a shift in the distribution of power occurred because the ruler used the existing standing army-which parliament had earlier granted because of a war threat—to coerce elites. However, anticipation of this adverse power shift may cause the elite to not fund the ruler in period 1, even if parliament is in place. In turn, this alternative route for the elite to not fund the government creates incentives for the ruler to build the state via coercion rather than cooperation. Thus, this extension of our framework provides a potential bridge to understanding incentives for coercive statebuilding. Building on qualitative contributions such as Tilly (1992), in future work we hope to integrate our focus on cooperative statebuilding with coercive strategies.

¹⁴Scott (2010) provides numerous historical examples of peoples that routinely fled in response to encroaching states: those in the Zomia region of Southeast Asia (the focus of his book), as well as peoples at the frontier of the Chinese state; natives in response to Spanish colonialism in the New World and the Philippines; Cossacks in Russia; and settlements of escaped slaves in Jamaica, Suriname, and Brazil (22-6).

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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

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

as claimed.

This result drives the proof of the lemma.

Lemma 1 (Invasion threats substitute for parliament). Assume that R does not call parliament and that E funds the government. If $\alpha \leq \frac{\theta_R}{\theta_F}$, then R's best response is always to expropriate. Otherwise, if $\alpha > \frac{\theta_R}{\theta_F}$, then there is a cutpoint $\hat{\theta}_X > 0$ such that R's best response is to provide public goods if and only if $\theta_X \geq \hat{\theta}_X$.

Proof. Because $p_H(0) = p_L(0) = 1$ and $\alpha < 1$, Equation 3 cannot hold at $\theta_X = 0$. The question then is whether it holds for any $\theta_X > 0$. It is clear from observation that p_H/p_L is continuous in θ_X , and Lemma A.1 tells us that it is strictly increasing. Taking the limit as θ_X increases without bound, we have

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

Therefore, if $\alpha \leq \frac{\theta_R}{\theta_F}$, then Equation 3 is violated for all $\theta_X \in \mathbb{R}$. Conversely, if $\alpha > \frac{\theta_R}{\theta_F}$, then the intermediate value theorem implies the existence of a unique $\hat{\theta}_X > 0$ such that Equation 3 holds if and only if $\theta_X \geq \hat{\theta}_X$.

A.2 PROOF OF PROPOSITION 1

We first prove that the important monotonicity of p_H/p_L (proved above in Lemma A.1) carries over to the ratio of their expectations.

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 strict MLRP in ψ , this ratio of integrals is strictly increasing in ψ (Wijsman 1985).

This allows us to prove the proposition.

Proposition 1. In equilibrium:

- (a) R will not call parliament if doing so is unnecessary to generate funding: $\mathbb{E}[U_R(E \text{ funds} \mid \text{no parliament})] > \mathbb{E}[U_R(E \text{ funds} \mid \text{parliament})].$
- (b) R will not call parliament if doing so is insufficient to generate funding.
- (c) R may call parliament if doing so is necessary and sufficient to generate funding. In this case:
 - If $\alpha < \theta_R$ and there is no external threat, then the ruler is unwilling to call parliament.
 - If $\alpha < \theta_R$ and there is an external threat, then the ruler's willingness to call parliament increases with the invader's anticipated strength, ψ . Specifically, if $\mathbb{E}[U_R(E \text{ funds } | \text{ parliament})] > \mathbb{E}[U_R(E \text{ doesn't fund})]$ at ψ , then the same is true for all $\psi' > \psi$.
 - If $\alpha \ge \theta_R$, then the ruler is willing to fund parliament for all $\psi \in \Psi$.

Proof. To prove part (a), first assume $\alpha \leq \frac{\theta_R}{\theta_F}$. Then we have $\mathbb{E}[U_R(E \text{ funds} | \text{ no parliament})] = E[U_R(E \text{ funds} | \text{ parliament})]$

and the argument follows by the lexical preference ordering assumed in footnote 8. Conversely, if $\alpha > \frac{\theta_R}{\theta_F}$, then by Lemma 1 we have $p_L(\theta_X) > p_H(\theta_X) \cdot \alpha$ for all $\theta_X \in [0, \hat{\theta}_X)$, and thus

$$\mathbb{E}[U_R(E \text{ funds} | \text{ no parliament})] = \int_0^\infty \max\{p_L(\theta_X), p_H(\theta_X) \cdot \alpha\} dF(\theta_X; \psi)$$
$$> \int_0^\infty p_H(\theta_X) \cdot \alpha \, dF(\theta_X; \psi)$$
$$= E[U_R(E \text{ funds} | \text{ parliament})].$$

To prove part (b), observe that R's expected utility from not being funded does not depend on whether R calls a parliament. From there the argument follows by the lexical preference ordering assumed in footnote 8. To prove part (c), first observe that the condition to prefer constrained funds over no funds is

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

If there is no external threat, then $\bar{p}_H(\psi) = \bar{p}_L(\psi) = 1$, and the condition becomes equivalent to $\alpha \ge \theta_R$. Otherwise, because $p_H(\theta_X) > p_L(\theta_X)$ for all $\theta_X > 0$, Equation A.1 holds regardless of ψ if $\alpha \ge \theta_R$. In the case of $\alpha < \theta_R$, the proof follows because \bar{p}_H/\bar{p}_L is strictly increasing in ψ , per Lemma A.2.

A.3 PROOF OF LEMMA 2

Lemma 2. There is a unique $\hat{\psi}$ such that E's preferred outside option is to refuse if $\psi < \hat{\psi}$ and otherwise to flee.

Proof. E's preferred outside option is to flee if and only if $\mathbb{E}[U_E(\text{flee})] \ge \mathbb{E}[U_E(\text{refuse})]$, which is equivalent to $\sigma \ge \bar{p}_L(\psi)$. Combined with the fact that \bar{p}_L is strictly decreasing in ψ (per the MLRP), our regularity conditions imply that there exists $\hat{\psi} \in \Psi$ such that $\bar{p}_L(\psi) > \sigma$ for all $\psi < \hat{\psi}$ and $\bar{p}_L(\psi) < \sigma$ for all $\psi > \hat{\psi}$.

A.4 PROOF OF PROPOSITION 2

We first prove that the elite sufficiency condition holds for all $\psi \leq \hat{\psi}$. As we assume in the body of the paper that $\alpha > 1 - \theta_R$, this claim follows as a corollary from the two following lemmas.

Lemma A.3. If there is no external threat, then the elite sufficiency condition holds if and only if $\alpha \ge 1 - \theta_R$.

Proof. In the absence of an external threat, we have $p_L = p_H = 1$, so Equation 5 is equivalent to $\alpha \ge 1 - \theta_R$.

Lemma A.4. If $\psi < \hat{\psi}$, then a marginal increase in ψ makes the elite sufficiency condition easier to hold. *Proof.* For all $\psi < \hat{\psi}$, we have $\bar{p}_L(\psi) > \sigma$ per Lemma 2. Therefore, Equation 5 is equivalent to

$$\frac{\bar{p}_H(\psi)}{\bar{p}_L(\psi)} \ge \frac{1 - \theta_R}{\alpha}$$

The claim then follows from Lemma A.2.

Notice that this latter lemma does not depend on the condition $\alpha \ge 1 - \theta_R$. If $\alpha < 1 - \theta_R$ (contrary to our assumption in the main text), then the elite sufficiency condition fails in the absence of an external threat. From there, the condition at first becomes more likely to hold as the outsider becomes stronger, up to the point where $\psi = \hat{\psi}$.

We now consider $\psi > \hat{\psi}$, showing that in this case marginal increases in ψ make the elite sufficiency condition harder to hold, and that the condition is sure to fail eventually.

Lemma A.5. If $\psi > \hat{\psi}$, then a marginal increase in ψ makes the elite sufficiency condition harder to hold.

Proof. In this case Equation 5 is equivalent to $\bar{p}_H(\psi) \cdot \alpha \ge \sigma \cdot (1 - \theta_R)$. The left-hand side of this inequality is strictly decreasing in ψ , while the right-hand side is constant in ψ , which proves the claim.

Together these lemmas allow us to prove the proposition.

Proposition 2 (Elite sufficiency constraint). There exists $\psi^* > \hat{\psi}$ such that the elite sufficiency constraint holds if and only if $\psi \le \psi^*$.

Proof. Following Lemma A.3 through Lemma A.5, we need only prove that the elite sufficiency condition fails for large enough ψ . Our regularity conditions imply that there exists $\psi^* \in \Psi$ such that $\bar{p}_H(\psi) < \frac{\sigma \cdot (1-\theta_R)}{\alpha}$ for all $\psi > \psi^*$, implying that Equation 5 is violated for all such ψ .

A.5 PROOF OF PROPOSITION 3

Proposition 3 (Strong threats break states). If $\psi > \psi^*$, then E will not fund the government in equilibrium, and a parliament will not be called.

Proof. Per Proposition 2, $\psi > \psi^*$ implies $\mathbb{E}[U_E(\text{flee})] > \mathbb{E}[U_E(\text{fund} | \text{parliament})]$. The first claim follows from the fact that

$$\begin{split} \mathbb{E}[U_E(\text{fund} | \text{parliament})] &= \int_0^\infty p_H(\theta_X) \cdot \alpha \, dF(\theta_X; \psi) \\ &> \begin{cases} 0 & \alpha \leq \frac{\theta_R}{\theta_F}, \\ \int_{\hat{\theta}_X}^\infty p_H(\theta_X) \cdot \alpha \, dF(\theta_X; \psi) & \alpha > \frac{\theta_R}{\theta_F} \end{cases} \\ &= \mathbb{E}[U_E(\text{fund} | \text{no parliament})], \end{split}$$

where the final equality is via (6). The second claim then follows from part (b) of Proposition 1. \Box