

Endogenous Political Legitimacy: The English Reformation and the Institutional Foundations of Limited Government*

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Abstract

This paper opens the ‘black box’ of political legitimacy and asks what role, if any, it played in the transformation of pre-modern England’s political system to one based on representation and the rule of law. Accordingly, the paper first presents a theory of endogenous legitimacy and why it influences the distribution of political power and thus policies, institutions, and outcomes. Applying this framework to England’s political history highlights the importance of the Reformation, following which the Catholic Church lost its legitimizing role. The Crown’s increasing reliance on Parliament and the laws it produced for legitimation changed the balance of political power in favor of Parliament. Legitimacy was thus central to the 17th-century Civil War and the Glorious Revolution, as the Stuart monarchs attempted to undermine the legitimizing role – and hence power – of Parliament. The analysis lends support to the view that institutions and culture are inter-related.

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1 Introduction

There is no political economy analysis of the relationship between political legitimacy and the rise of democratic and liberal states. Although such states have differed in many ways, they share much in common. Religious authorities have little or no institutionalized role in the political decision making process while economic agents are politically influential. The rule of law prevails and is supported by an independent judiciary that protects freedom in private and economic matters, and the army is under the control of the civilian authorities.

What role, if any, did political legitimacy play in the transition to states with such characteristics? Addressing this question first requires opening the black box of political legitimacy. Accordingly, this paper develops a conceptual framework to examine *endogenous* political legitimacy. It then relies on a formal model and historical evidence to examine the role legitimacy played in the process through which pre-modern England became a limited monarchy and, more generally, gradually transitioned to a democracy. The historical analysis demonstrates that the particularities of the English Reformation changed the institutional foundations of political legitimacy in favor of Parliament¹ in a manner that was crucial to England's political development. Moreover, the analysis reaffirms the usefulness of our conceptual and analytical approach to study legitimacy, how it endogenously forms, and why and how it influences the distribution of political power.

Neither the concept of legitimate political authority nor its importance is contested.² A legitimate political authority is one whose subjects are intrinsically motivated to obey. In other words, an authority's legitimacy is predicated on the shared internalized belief among its subjects that the authority has the *right* to govern and they have a moral *obligation* to follow. But how does a ruler obtain legitimacy? Does the manner in which a ruler obtains legitimacy affect the type of policies that result? Answering these questions is difficult because we presently have no theory of endogenous political legitimacy. The dominant framework for studying political legitimacy follows Weber in considering legitimacy an exogenous variable that reduces governance cost.³ A theory in which the main explanatory variable is exogenous and unobservable, however, has limited explanatory power.

England was the birthplace of the modern economy, and understanding the process underlying its transformation has taken a rightfully important place in the social sciences. But legitimacy has taken a back seat in most explanations of England's takeoff, which instead focus on the English Civil War and the Glorious Revolution of 1688. The most well-known contribution in the economics literature is North and Weingast (1989), who argue that the 17th-century Stuart monarchs could not credibly commit to not transgressing property rights – it was only after the Glorious Revolution settlement, which secured the power of the purse for Parliament, that such commitment was credible. According to North and Weingast, the more limited government following the settlement allowed the English crown to borrow at relatively low interest rates,

¹Specifically we are referring to the House of Commons. We henceforth use the terms interchangeably and refer to the House of Lords as such when appropriate.

²Many prominent social scientists have claimed that legitimacy is central to political outcomes, including John Locke, Max Weber, and Seymour Martin Lipset. Weber went as far as to claim that political legitimacy is “the basis of every system of authority” (1964: 382). Although recognized as central, political legitimacy has nevertheless received scant attention in the social science literature. There were, on average, less than 6 papers a year on this topic in all refereed social scientific journals since 1950 (and a total of 34 papers in economic journals), based on the Social Sciences Citations Index, topic “political legitimacy” (accessed Dec. 20, 2013). The data for economic journals is from 1950 to 2012.

³Max Weber (1964) famously noted that political legitimacy is either charismatic (i.e., derived from the personal achievements of the authority), traditional (i.e., derived from affiliation with past legitimate authorities) or legal-rational (i.e., derived from exogenous principles regarding justice). The new lines of work consider such issues as the relations between legitimacy and performance (e.g., Levi and Sacks 2009, Levi, Sacks and Tyler 2009), the persistence of legitimacy norms (Greif 2008, Greif and Tadelis 2010), and their impact (Greif 2002, Rubin 2011, 2016).

since it could credibly commit to paying its debt.⁴ Another set of closely-related hypotheses center on the early 17th-century change in wealth distribution resulting from increased overseas trade. This argument was fully laid out by Brenner (1993) and was more recently elaborated by Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2012). Their general claim is the following: the increase in the wealth of “new merchants” engaged in overseas trade increased their political power, and Parliament was an expression of this change in power. It follows that the Civil War and Glorious Revolution resulted from the Crown’s opposition to the interests of merchants. The consequences of this argument are clear enough: the success of the “new merchants” coalition forced the Crown to cede policies that were beneficial to the merchants and, more generally, economic growth: protection of property rights, protection for and investment in overseas trade, reductions of trade restrictions, and the like.

Yet these arguments leave some important puzzles unresolved. First, they rely on the idea that Parliament’s primary complaint was that the Crown abused property rights prior to the Glorious Revolution. Putting aside questions of whether this was actually the case,⁵ these hypotheses cannot explain the fact that when Parliament came to power following the Civil War, they enacted the *same policies* that were central to their grievances under Charles I. Indeed, Parliament raised money during the civil wars using the same means that it had previously claimed were abusive. If Parliament were simply concerned with the content of the policies, their actions are unexplainable. Second, they cannot account for the fact that Parliament only revolted against the Crown after it was called by the king. Charles I ruled without Parliament for 11 years before calling them, soon after which the Civil War commenced. If it were only property rights that they were concerned about, what prevented them from revolting prior to being called? Third, the idea that the Crown was unable to commit to not transgressing property rights cannot explain events from the previous century, where an even wealthier king, Henry VIII, was able to commit to not transgressing Parliament’s rights. Parliament helped Henry VIII amass his wealth by pushing through the Reformation and the confiscation of the monasteries. A similar independent source of wealth was exactly what allowed Charles I and James II to attempt to rule without Parliament in the 17th century: why could Henry VIII commit to not transgressing Parliament’s rights but Charles I and James II could not? Fourth, why did the monarchy continue despite two successful revolts? If Parliament were concerned about having their rights transgressed, why did they restore the Stuarts in 1660 and invite William of Orange to replace James II in 1688? Fifth, why did the Stuart kings of the 17th century, who had a host of dynastic and economic goals, repeatedly confront Parliament on the question of religion? Why did they adopt the religion of the minority (Catholicism)?

This paper suggests that these puzzles, and many more relevant historical facts, can be accounted for by considering the role that endogenously-generated legitimacy played in England’s political-economy equilibrium. Our historical argument centers on events that occurred over a century prior to those of concern to North and Weingast and Acemoglu and Robinson. We focus on the impact of the Reformation on the institutional foundations of political legitimacy in England and the resulting impact on subsequent political developments. A context-specific model and historical analysis establishes that political legitimacy and its new post-Reformation institutional foundations had a profound impact on political developments in England, and that the 17th-century conflicts were struggles over the foundations of political legitimacy. These struggles resulted in new institutions and administrative structures that excluded Catholicism from the public sphere

⁴Coffman et al. (2013) challenge this view, arguing that multiple mechanisms – well beyond executive constraint – were necessary to convince investors that public debt was a reasonably safe and liquid form of investment.

⁵Clark (1996) argues that land prices were stable during the Civil War, indicating that property was secure prior to the Glorious Revolution.

– even today only a Protestant king can hold the English Crown – but enabled the Crown and Parliament to cooperate in advancing their common interests. The new system also separated military might and political power, and its legitimacy depended more than previously on the principle of consent and the rule of law. In short, we suggest that the historical evidence overwhelmingly supports that notion that legitimacy mattered in the creation of this new system that was key to England’s economic, political, and military rise.

More generally, the analysis highlights that neither constraints on the monarch nor lower governance costs per se were the main factors that set England apart. England differed, due to luck more than design, in the details of a general mechanism generating endogenous legitimacy, the resulting distribution of power, and the implied institutions and policies. England’s historical experience thus supports the broader conclusion that the impact of political legitimacy goes beyond reducing governance costs. The process through which political authorities gain legitimacy affects the distribution of political power and thus has a profound impact on institutions and policies.

2 What is Political Legitimacy?

2.1 Definitions and Terminology

We conceptualize political legitimacy as the common knowledge probability that each member of a society holds that others will obey the authority. To illustrate, consider the classic problem of whether to drive on the left or right side of the road. In this pure coordination problem, every driver would use the side she expects others to use. Suppose it is common knowledge that Mickey Mouse declared that everyone should drive on the left but the Ministry of Transportation declared that everyone should drive on the right. In predicting the outcome, we expect that each driver would expect the others to drive on the right as ordered by the Ministry. The Ministry’s ‘cheap talk’ influences expectations and drivers will drive on the right. The basis for this prediction is the common knowledge that the Ministry is the legitimate authority that regulates traffic. An authority’s legitimacy is thus the commonly known probability that each member of the society places on others obeying an authority in various situations.

The central premise of our analysis is that political legitimacy has cultural and institutional foundations. The former are shared cultural beliefs specifying the conditions necessary for political legitimacy. We call these conditions the society’s *legitimacy principles*. In a democracy, for example, the legitimacy principle is to receive a majority of the vote in a free and fair election, while under theocracy the principle includes protecting religion. A U.S. president has to be one who was not born abroad, one had to be a man of royal blood to be a French monarch prior to the Revolution, and one has to have a law degree to be a legitimate judge. In pre-modern England, as in most pre-modern Western European states following the codification of secular law in the 12th and 13th centuries, it was a shared cultural belief that a legitimate ruler was one who followed the law (Berman 1983). Such legitimacy principles are commonly known to prevail in the population and thus constrain (at least initially) those who seek legitimation. In other words, legitimacy principles determine the set of potential legitimate authorities and their legitimate scope of actions.

Our analysis focuses primarily on the *institutional* process of legitimation. This is, namely, the process that influences shared beliefs regarding the legitimacy of a particular authority (out of many possible ones) and the set of its legitimate actions. Central to the process of legitimation are public declarations made by agents recognizing the legitimacy of the authority and/or actions. Legitimation processes manifest themselves in public declarations, enactment of laws, inauguration ceremonies, coronations, and parades through which

legitimizing agents create the common knowledge that they recognize the legitimacy of the authority or its actions.

Two factors determine the set of potential legitimizing agents.⁶ The first factor is the legitimacy principle(s) based on which the authority claims legitimacy. The council of the Catholic cardinals is consistent with the legitimacy principle that renders a Pope legitimate and thus the opinion of this body can influence beliefs regarding the legitimacy of a particular Pope. The opinion of the United Nations Council is not likely to have the same impact. Yet, the latter Council can legitimize actions in the international arena. The second factor necessary for legitimizing is that the legitimizing agent is in a position to *refuse* legitimation. The opinion of a puppet is meaningless. To bestow legitimacy, legitimizing agents have to have the capacity to decline legitimizing the authority: they have to be politically powerful.

2.2 Institutional Foundations of Legitimacy

Legitimacy principles constitute the cultural foundations of legitimacy, as they specify the conditions an authority has to meet to be legitimate in the eye of its subjects. The discussion of the historical origins and persistence of legitimacy principles is beyond the scope of this paper.⁷ The focus here is on the institutional foundations of legitimacy that matter because a specific authority actually gains legitimacy only if it is believed to have met the cultural conditions for political legitimacy.

The institutional foundations of political legitimacy are the means fostering such beliefs. Particularly important are public ceremonies such as coronations, enthronements, parades, and approval by assemblies. During these ceremonies, various agents publicly express that they recognize the authority's legitimacy. The public signal by these agents influences beliefs about the authority's legitimacy. In different societies and in different situations, legitimacy is conferred on distinct social positions or rests in distinct organizations. These individuals or organizations can be said to have the cultural authority to change what behavior is normatively appropriate (DiMaggio and Powell 1991).

Such authority can be generated endogenously when a political player approaches an agent and asks it to confer legitimacy. At the same time, the legitimizing agency and agents have to be consistent with the prevailing legitimacy principle and be perceived to have the capacity to verify and validate that the legitimacy principle is satisfied by a particular authority. No pope was ever asked to legitimize an Anglican bishop, and one relies on a reliable election committee and not a car insurance agent in evaluating the validity of democratic elections. People take it for granted that cardinals legitimize a pope, nobles legitimize a monarch, and voters legitimize an elected official. The politics begin in the choice of the particular agent, amongst the potentially many, who can actually legitimize.

A political authority can often choose amongst several potential legitimizing agents or can select whom to place in such a role (e.g., selecting an archbishop to crown the king or nominating a particular individual to be the archbishop who has to crown the king). The choice of legitimacy principle and legitimizing agents therefore influences the distribution of political power. Importantly, the mere act of requesting legitimation enhances the power of the chosen agent to legitimize. The logic is that the request signals that the authority accepts that these agents can recognize whether it is legitimate or not. For instance, when a king calls a session of Parliament in order to enact legislation, he is recognizing the legitimizing power of Parliament's stamp of approval, which in turn increases the power of Parliament to enact that type of legislation in the

⁶For recent work on the role of legitimizing agents in political decision-making, see Cosgel, Miceli, and Rubin (2012a, 2012b).

⁷See Greif (2006) and Rubin (2011, 2016) for discussion regarding Europe and the Islamic world and Greif and Tadelis (2010) for a relevant theory of moral persistence.

future. Public events such as coronation ceremonies provide an important instance of such legitimizing power being transferred, as they give an incoming monarch the public opportunity to show whom he accepts as the appropriate people to legitimize his rule.

2.3 The Implications of Institutionalized Legitimacy

Under our conceptualization, legitimacy is valuable because it reduces governance costs and political uncertainty: people obey legitimate authorities. Yet, the story does not end there. The distribution of political power depends on the legitimacy principle(s) that the authority relies on and the legitimizing agents it uses. Legitimizing agents thus have power to influence policy decisions and have an interest in enhancing their legitimizing role. In short, endogenous legitimizing power and legitimacy influence political power and thus policies, institutions, and administrative structures.

In particular, legitimizing agents have the capacity to constrain the ruler. Legitimacy can thus mitigate the commitment problems inherent to the relationship between rulers and their subjects. An unconstrained ruler (or any other powerful social actor) can abuse property rights and agreements over policies and their financing. Expecting such ex-post behavior prevents otherwise beneficial social cooperation. A vast literature (e.g., North and Weingast 1989, Tilly ??, Bates et al. ??) considers how economic agents' wealth or coercive power mitigate this problem and how the cessation of violence creates economic gains that reinforce social order.

Legitimacy can similarly mitigate commitment problems, and it can also reduce the cost of governance and presence of military conflicts over succession. Moreover, unlike wealth and coercive power, legitimacy can be procured at relatively low cost; yet, it is also *reversible*. After legitimacy is given it can be taken away without the consent of the receiver. For instance, legitimacy bestowed by a parliament to a king in the past means little if the parliament decides to revolt against the king in the present. Unlike most other types of resources, which are irreversible (i.e., once the king has his hands on tax revenue, it is his to spend), legitimation can be retracted *ex post* – after the ruler makes a policy decision.

The economic and political implications of political legitimacy therefore go well beyond their direct impact on the cost of governing. The first impact is on policies. The choice of legitimizing principles and agents influences the distribution of political power and thus the policies that the authority finds optimal to pursue. The second impact is on institutions and political bargaining. A ruler and its legitimizing agencies gain from cooperation, as legitimacy reduces governance costs and enables the extraction of more resources from the population. The distribution of this surplus among them, however, is a source of contention rife with commitment problems. Our conceptualization suggests that the transfer of legitimacy can help mitigate these commitment problems because legitimacy is reversible *ex post*. Finally, the strategic dynamic interactions between legitimizing agencies and a ruler affect institutions and policies as each side seeks to retain the benefit of the legitimacy bestowed by the other side in the present while curtailing its power in the future. This framework therefore suggests that there is an important trade-off for rulers seeking legitimation: by asking for legitimation in the present, rulers cede power to their legitimizing agents in the future, thus augmenting the future bargaining positions of the players.

2.4 Did Institutionalized Legitimacy Matter in England?

It is one thing to theorize on how legitimacy might affect the interactions between rulers and elites in a society, it is quite another to provide evidence that legitimacy actually matters in their decisions. What type

of data could support such an assertion? Even direct quotations from rulers and elites should be taken with a grain of salt since their words may provide cover for their true ambitions. While the data on “legitimacy” is practically non-existent – it is not easily quantifiable – some evidence can be gleaned from the coronation ceremonies of English monarchs. We do not push this analysis too far – the data are highly suggestive, but hardly conclusive. If public ceremonies are a means of fostering legitimacy, it follows that monarchs with a less secure legitimacy claim should have held them sooner rather than later.

In the English system of hereditary monarchy, male heirs had stronger legitimacy while being an adult heir meant a better ability to establish authority. If public legitimizing ceremonies increased legitimacy, adult male heirs should have been slower in holding coronation ceremonies than female heirs or non-adult heirs. In other words, the cultural foundations of legitimacy (i.e., being an adult male heir) and the institutional foundations of legitimacy (as seen in the coronation) are substitutes: where a ruler has more of one, the value of the other is lower. Table 1 suggests that this was the case in English history. Considering all monarchs from 1066 to the present, it took on average 84.3 days for a non-adult male heir to hold a coronation ceremony while it took adult males heir 242.3 days, on average, to do so. Prior to the period of Parliamentary supremacy (i.e., prior to the English Constitution of 1689), where securing legitimacy may have been more important for monarchs, there was also a substantial difference in the days to coronation between adult male heirs (164.0 days) and non-adult male heirs (40.2 days).

Table 1: Days to Coronation of English Monarchs, 1066-present

Monarch	Reign	Days to Coronation	Monarch	Reign	Days to Coronation
<i>Adult Male Heirs</i>			<i>Non-Adult Male Heirs</i>		
William II	1087-1100	17	William I	1066-1087	0
Henry I	1100-1135	3	Stephen	1135-1154	0
Richard I	1189-1199	59	Henry II	1154-1189	0
John	1199-1216	51	Henry III	1216-1272	10
Edward I	1272-1307	641	Edward III	1327-1377	12
Edward II	1307-1327	233	Richard II	1377-1399	24
Henry V	1413-1422	19	Henry IV	1399-1413	13
Henry VIII	1509-1547	64	Edward IV	1461-1483	116
Charles I	1625-1649	312	Richard III	1483-1485	10
Charles II	1660-1685	329	Henry VII	1485-1509	69
James II	1685-1688	76	Edward VI	1547-1553	23
George II	1727-1760	122	Mary I	1553-1558	104
George III	1760-1820	332	Elizabeth I	1558-1603	59
George IV	1820-1830	537	James I	1603-1625	123
William IV	1830-1837	439	William III and Mary II	1688-1702	57
Edward VII	1901-1910	564	Anne I	1702-1714	46
George V	1910-1936	412	George I	1714-1727	80
George VI	1936-1952	152	Victoria	1837-1901	373
			Elizabeth II	1952-	482
<i>Average (Overall)</i>		<i>242.3</i>	<i>Average (Overall)</i>		<i>84.3</i>
<i>Average (pre-1689)</i>		<i>164</i>	<i>Average (pre-1689)</i>		<i>40.2</i>

Note: Adult if 17 or older at time of succession to the throne, heir if father (mother) was king (queen); Note: Henry VI succeeded to the throne at nine months and we do not include him; also not included is the disputed reign of Matilda (1141) and the short reign of Edward VII (1936), neither of whom had a coronation.

The relation between days to coronation and inherited legitimacy supports the idea that cultural and institutionalized legitimacy were both important in England. Yet, it neither reveals nor explains the role, if any, that legitimacy played in England’s political development. Prior to considering political legitimacy in England, the next section presents the two main theories regarding the particularities of England’s political evolution. A simple model is specified to facilitate the presentation and it is subsequently expanded to also encompass legitimacy.

3 Was the Conflict only about Commitment and Wealth?

During the 17th century England became a constitutional monarchy in which Acts of the Parliament were the law of the land. Authority over taxation - which Parliament always had - was extended to include the right for Parliamentary supervision over expenditures. Two accounts dominates the social scientific literature on this transition. The first, North and Weingast (1989) (hence, NW) argues that the rise of long-distance trade implied new profit opportunities but potential traders feared that the unconstrained English monarchs would expropriate their wealth. Accordingly, they embarked on institutionally constraining the monarch by expanding the power of the Parliament.

The second work, Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2006, 2012) (hence, AJR for all) shares with NW the premise that the English monarchs were predatory. The causal relations, differ, however. Profits from overseas (Atlantic) trade changed the distribution of wealth. The new rich were not part of the monarch’s patronage network (coalition), but their wealth tilted the balance of power in England. Their integration in the House of Commons reduced the costs of collusion among member to challenge the system. The following sub-section presents a model that enables evaluating these arguments.

3.1 A Model of Commitment, Wealth and Power: Set-up

Consider a perfect and complete information economy in which a ruler (R) and an agency (A) – e.g., Parliament – interact over an infinite number of periods. The ruler and agency are endowed with a constant level of resources in each period, denoted $\rho^R \in \mathbb{R}^+$ and $\rho^A \in \mathbb{R}^+$. Resources can be thought of as a constant stream of revenue available to the players outside of the purview of the other player, such as tax revenue or fruits of landed investments.

Each period proceeds in three stages. In the first stage, the ruler makes the agency an offer of a transfer (from the agency to the ruler), $\rho_t^T \in [-\rho^R, \rho^A]$, and a policy, $p_t^O \in \{0, \frac{\varepsilon}{2}, \varepsilon\}$, where subscripts are used throughout to denote the period. A positive transfer indicates that the ruler is asking the agency to give it resources, while a negative transfer entails that the ruler is offering the agency resources. The players have preferences over policy, $p_t \in \{0, \frac{\varepsilon}{2}, \varepsilon\}$. The ruler’s optimal policy is $p_t = 0$, while the agency’s optimal policy is $p_t = \varepsilon \in (0, 1)$, and $p_t = \frac{\varepsilon}{2}$ is a “compromise policy”.⁸ We model the ruler as making a “take-it-or-leave-it” offer – despite this giving the ruler more bargaining power than he would have in a Nash bargaining context – because we are only concerned with the *existence* of an offer that the ruler can credibly commit to, not the distribution of resources that the offer entails.⁹

⁸All results hold over a much larger set of policies, but not when the policy space is continuous. If the policy space is continuous, infinitesimal changes in policy can be traded for infinitesimal transfers. But this is highly unrealistic; there is rarely so much gray area in policies where modeling them as continuous makes sense (i.e., “go to war” or “do not go to war” is an example of a black and white policy option, with the only gray area being how many troops to commit).

⁹All comparative statics results hold, qualitatively, if the agency is allowed to make a “take-it-or-leave-it” offer or if a Nash

In the second stage, the agency chooses whether or not to accept the package proposed by the ruler, $a_t \in \{0, 1\}$. After this stage, the total level of resources available to the ruler are $\rho_t^R = \rho^R + a_t \rho_t^T$, and the total level of resources available to the agency are $\rho_t^A = \rho^A - a_t \rho_t^T$. In the third stage, the ruler implements any policy he desires $p_t^I \in \{0, \frac{\varepsilon}{2}, \varepsilon\}$. The strategies of the ruler and agency in a period are therefore written as $s_t^R = (\rho_t^T, p_t^O, p_t^I) \in S^R$ and $s_t^A = a_t \in \{0, 1\}$.¹⁰

This specification captures the commitment problem focused on by NW. The policy implemented by the ruler, p_t^I , does not have to equal the offered policy, p_t^O . This is the heart of the commitment problem – since resource transfers are irreversible, the ruler is not obligated to enact the proposed policy once he receives the transfer.

After Stage 3, the (unmodeled) subjects¹¹ follow the policy with some probability $f(\rho_t^R) \in [0, 1]$ and do not follow it with probability $1 - f(\rho_t^R)$, where $f' > 0$, $f'' < 0$, $f(0) = 0$, and $\lim_{x \rightarrow \infty} f(x) = 1$.¹² In other words, there is a one-to-one mapping between resources and the ruler's ability to implement desired policies. This is a generalization of the North and Weingast model, since a ruler that is rich enough can choose any policy he wants, including those which abuse property rights, and the subjects will follow it. Meanwhile, the larger that ρ^A is or the smaller that ρ^R is, the greater is the agency's "power of the purse", because the agency's resources have a greater impact on the implemented policy being followed.

The expected economic value to the ruler and the agency from the citizens following the policy is a function of the distance between the enacted policy and their optimal policy. Their period t expected payoffs take the form:¹³

$$u_t^R = f(\rho_t^R) (1 - p_t^I), \text{ and} \quad (1)$$

$$u_t^A = f(\rho_t^R) (\beta - |\varepsilon - p_t^I|) + \rho_t^A, \quad (2)$$

where $\beta \in (\frac{\varepsilon}{2}, \varepsilon)$. We write the agency's utility in this manner to highlight the idea that there is a tension between the ruler's desired policy and the agency's desired policy. The ruler's desired policy gives the agency negative utility, $f(\rho_t^R) (\beta - \varepsilon)$, so the agency prefers for it not to be enforced (i.e., for $f(\cdot)$ to be low). The compromise policy gives the agency positive utility, $f(\rho_t^R) (\beta - \frac{\varepsilon}{2})$, while the agency's optimal policy gives it even greater utility, $f(\rho_t^R) \beta$. Both players benefit from the implementation of policies $\frac{\varepsilon}{2}$ and ε . The ruler's utility is written as strictly positive because we assume that a ruler will never implement a policy that gives him negative utility.

Denoting by $\{\delta^R, \delta^A\} \in (\varepsilon, 1)$ each player's time discount factor - where $\delta^R > \varepsilon$ and $\delta^A > \varepsilon$ entail that the value of policies in the future is large enough to affect decision-making in the present - the lifetime expected utilities of the ruler and agency are:

$$U_t^R = \sum_{j=t}^{\infty} (\delta^R)^{j-t} E [u_j^R | s_j^R, s_j^A], \text{ and} \quad (3)$$

bargaining solution is employed. The distribution of the gains from cooperation is different, however.

¹⁰Formally, the strategy space is $S^R = [-\rho^R, \rho^A] \times \{0, \frac{\varepsilon}{2}, \varepsilon\} \times \{0, \frac{\varepsilon}{2}, \varepsilon\}$.

¹¹We do not explicitly solve for the actions of the subjects, so we are solving only a partial equilibrium.

¹²We also assume that f is thrice differentiable and $f''' < x$, for some positive value of x that is defined in the Appendix. We do not wish to speculate on the value or sign of the third derivative. We merely note that f''' not being too large is a sufficient condition for Proposition 1 to hold.

¹³We assume that the ruler derives no additional utility from resources not spent on enforcing policies, but the agency derives utility from resources not transferred to the ruler. This is a simplifying assumption. It is justified if the ruler gains significantly more on the margin by enacting policies that are followed than it does from the resources themselves. This is of course not always true – autocrats often derive significant consumption utility from the resources at their disposal.

$$U_t^A = \sum_{j=t}^{\infty} (\delta^A)^{j-t} E [u_j^A | s_j^R, s_j^A]. \quad (4)$$

After players receive utility, the period ends and the next period begins.

It is clear from this setup that it is possible for cooperation over the policy and transfer to be beneficial to both players. Only when the ruler is sufficiently wealthy (ρ^R is large) will a mutually beneficial agreement be impossible in equilibrium. In this case, the agency's power of the purse is weak: a transfer to the ruler will not increase $f(\rho_t^R)$ by enough to make it worthwhile for the ruler to enact policy $\frac{\varepsilon}{2}$ or ε .¹⁴ But as long as ρ^R is sufficiently small, the agency's power of the purse is strong enough that there is some mutually beneficial transfer-policy combination $\{\rho_t^T, p_t^I\}$.

In each stage of the game, credibility limits gains from cooperation. After receiving a positive transfer, the ruler can always implement his desired policy ($p_t^I = 0$) and the agency cannot punish him in that period. In a one-shot game, there is no equilibrium outcome in which the agency makes a positive transfer to the ruler.¹⁵ In a repeated game, there can be an equilibrium in which the ruler and agency cooperate because the agency can condition its actions on previous game play. Going forward, we denote a "cooperative equilibrium" as any equilibrium in which the agency gives the ruler a positive transfer and the ruler credibly commits to implementing the offered policy. We solve for the existence of a cooperative equilibrium by assuming that the agency plays a grim-trigger strategy: if the ruler ever reneges on implementing the offered policy, the agency does not accept his offer in the future. Even in this case, however, commitment problems still exist when the ruler is sufficiently wealthy (i.e., the agency has a weak power of the purse). We formalize this result in Proposition 1.¹⁶ All proofs are in Appendix A.

Proposition 1 $\forall \{\rho^R, \rho^A, \delta^R, \varepsilon\} \exists$ some ρ^* ($\rho^A, \delta^R, \varepsilon$) where a cooperative equilibrium exists if and only if $\rho^R \leq \rho^*$. ρ^* is weakly increasing in ρ^A , monotonically increasing in δ^R , and monotonically decreasing in ε , *ceteris paribus*.

3.2 Insecurity of Property Rights and Commitment

The above proposition indicates that the long hand of the future can mitigate the commitment problem inherent in the relations between rulers and subjects. According to NW, however, the long hand of the future can support cooperation only if supplemented by appropriate institutions because the survival of rulers often depends on having sufficient revenues. In the words of North and Weingast (1989), "one important context in which repeat play alone is insufficient to police repudiation concerns variations in the sovereign's time preference or discount rate" due to the need to finance wars. Thus "the insufficiency of repeat play and reputation to prevent renegeing provides for the role of political institutions" (pp. 807-8).

Such institutions, according to NW, emerged in England only during the seventeenth century. In their view, the Stuarts acted tyrannically prior to the 1689 Constitution – they transgressed previously-established property rights – because they could. Parliament's capacity to retaliate by limiting revenues was not strong enough to punish the Stuarts, nor did Parliament have any other credible means of punishing their transgressions. The only way that Parliament could prevent the Stuarts from becoming completely tyrannical was by

¹⁴This is easiest to see in the case where ρ^R approaches infinity. In this case, any transfer from the agency barely affects $f(\rho_t^R)$, but the marginal cost to the agency is 1. So there is no positive transfer that can make the agency better off while also making the ruler better off.

¹⁵The ruler chooses $p_t^I = 0$ regardless of what p_t^O is, and the agency receives negative utility from $p_t^I = 0$. It therefore prefers not to fund this policy.

¹⁶ ρ^* is not a function of δ^A , so it is not included in Proposition 1.

depriving them of revenues. Although this prevented them from implementing policies costly to Parliament, it also prevented them from implementing policies that were mutually beneficial.

This changed over the course of the 17th century as Parliament set up institutions to limit the discretion of the Crown. In 1689, noted NW, "Parliament restructured the society's political institutions in the Revolution Settlement" (p. 815). "The Parliamentary supremacy established a permanent role for Parliament in the ongoing management of the government and hence placed a direct check on the Crown. The Crown no longer called or disbanded Parliament at its discretion alone. Parliament also gained a central role in financial matters. Its exclusive authority to raise new taxes was firmly reestablished; at the same time the Crown's independent sources of revenue were also limited" (p. 816).

Institutional changes in decision-making processes are effective, however, only if they are self-enforcing in the sense that all actors find it optimal to follow the associated behavior both on and off the path of play (Milgrom, North, and Weingast 1990; Greif, Milgrom and Weingast 1994; Greif 1989, 1993, 1998, 2006). In particular, the Crown should have only been able to commit to not using its large revenues to confront Parliament when this was in its own self-interest. In other words, institutionalized rules are effective only if it is expected ex-ante that all agents will find it optimal to follow the rules ex-post. As NW noted, "simply removing the powers underpinning arbitrary behavior was insufficient to prevent abuse" (p. 815).

The post-1688 institutions were self-enforcing, according to NW, for two reasons. First, the Crown's finances were improved, implying that the Crown had more to lose from breaking the rules. Second, Parliament could militarily confront an abusive ruler. Parliament "had the advantage with its now credible threat of dethroning a sovereign who stepped too far out of line" (p. 829) and "part of the glue that held these institutional changes together was the successful dethroning of Charles I and, later, James II. This established a credible threat to the Crown regarding future irresponsible behavior" (p. 816).

In short, the English Civil Wars of the 1640s and the Glorious Revolution of 1688 – both of which resulted in the removal of the king – gave Parliament a credible threat of dethroning a monarch who deviated from the agreed upon policy. The resulting English Constitution of 1689 formalized the equilibrium outcome. The most prominent manifestation of this equilibrium is that Parliament gained the power of the purse. A king who could commit – under the threat of revolution – to follow the policy agreed upon implied that Parliament could finance its desired policies without fearing diversion of the funds. This arrangement was self-enforcing. The Crown had incentive to cede the power of the purse because Parliament could credibly threaten to remove a monarch who ignored the Constitution. Meanwhile, Parliament had incentive to keep the Crown in power because the Constitution gave MPs what they wanted: a greater say in English governance. In terms of the model, the Constitution enabled the Crown and Parliament to agree on transfers (ρ_t^T) and policies (p_t^O) that were credibly implemented (i.e., $p_t^I = p_t^O$).

The importance of NW's analysis is evident from the large literature that followed - some of which was dismissive and some supportive (for a recent discussion, see Coffman, et al 2013). The important issue here, however, is the self-enforceability of the new constitution. Why did English monarchs follow the rules that limited their discretion? NW, as noted above, argued that the Parliament could credibly threaten to use military power to dethrone a monarch who broke the constitution. The constitution coordinated responses to abuses. One reason to doubt this claim is that the English monarchs created a world wide empire that they controlled by force despite frequent coordinated opposition. Why weren't they able to achieve the same in England?

More importantly, the Civil Wars, and not the Glorious Revolution, were the last time that Parliament directly mobilized an army against the Crown. Yet, this episode *undermined*, rather than strengthened, the

credibility of the threat that a Parliamentary army would face the Crown. In fact, the English Civil Wars did not establish the military supremacy of Parliament. On the contrary, Parliament lost its military might, whatever it was.

During the Civil Wars, Parliament recognized that an army led by MPs is insufficiently effective. The political objectives of MPs who were military commanders often conflicted with the interests of Parliament as a whole. Accordingly, Parliament prohibited MPs from being field commanders and created a professional, national army that was not under the personal command of MPs. The Self-Denying Ordinance (3 April 1645) compelled the resignation of commanders who were also MPs (with some exceptions). At the same time, Parliament created a professional army – the New Model Army – in which ranks were based on merit, rather than nobility or wealth, and the soldiers were well-paid, well equipped, and intensively trained.

The effectiveness of the New Model Army tilted the balance of power in favor of Parliament. Following the defeat the Royalists in 1647, Parliament ordered the army to disband. The army, however, did not. The officers refused to obey, claiming insufficient compensation, and turned to organize the army as an independent political force led by an Army General Council. In the Second Civil War (1648-9) the army initially collaborated with Parliament against Charles I but eventually broke rank and used its force to make sure that Parliament would execute him. In 1653, Oliver Cromwell became the Lord Protectorate with the support of the Army.

In 1660, the Army forced Parliament to restore the monarchy. Following the Restoration, Charles II had more military force under his control than any English king since the Magna Carta. He initially intended to keep the New Model Army but eventually recognized that this force was too accustomed to being politically active. Instead he created a standing army that was recognized by Parliament and financed by the crown. Although initially small, its size increased in order to fight foreign wars. Moreover, the act of restoration placed the English local militias under royal control, although with some restrictions on their use.

On the eve of the Glorious Revolution (1688), James II had a large professional army that might have been as large as 45,000 men. It had already crushed two revolts. Parliament, in contrast, had no military units under its control and did not attempt to raise an army. The army that threatened James II was composed of English volunteers and the 15,000-man mercenary army that William III brought with him. As noted by a contemporary, Andrew Fletcher, “Britain stood in need of a foreign force to save it” (1698, p. 10). The Revolution was Glorious because James II’s army was unwilling to fight. Fletcher, amongst other contemporaries noted that James “made his own game as hard as possible, not only by invading our civil liberties, but likewise by endeavoring to change the established religion for another which the people, whereby he lost their affections, and even those of a great part of his army” (ibid).

In short, Parliament’s military power did not force James II to flee England by raising an army, nor did they have access to more armed forces than the Crown. Quite to the contrary, James II had a large standing army – granted to him by Parliament – that could have been used to defeat William of Orange’s troops. The open question within the NW framework is: why did James II’s army desert him? Moreover, once Parliament made William III the king, they were again at a severe military disadvantage: William III had an army of 15,000 loyal Dutch troops, while Parliament did not mobilize an army. How was it possibly credible that Parliament could remove William III by force if it wanted to?

3.3 Wealth, Power, and an Inclusive Parliament

Our model also captures the essence of the arguments made in Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2006, 2012) (hence, AJR for all). AJR claim that the opening of the Atlantic

in the early 16th century was a critical event in the transition to limited government. The Atlantic trade redistributed wealth in favor of new merchant groups that were not under the Crown’s patronage. Because wealth buys power, the new mercantile elite challenged the Crown and constrained its abusive power. Crucial to this process was that the English Crown was initially less tyrannical than other European rulers and thus could not prevent the distributive impact of the Atlantic trade. According to this theory, absolutist rulers, such as the Spanish, French, and Portuguese Crowns, were able to avoid succumbing to institutional change because the Crown was able to control the expansion of trade and the redistribution of wealth and power that it entailed. It was only in the non-absolutist regimes – England and the Dutch Republic – where the Crown was not powerful enough to limit Atlantic trade, and a new powerful and wealthy class of merchants emerged as a result.

In short, the fundamental idea underlying their analysis is that *wealth equals power*: “in countries with non-absolutist initial institutions and easy access to the Atlantic, the rise in Atlantic trade enriched and strengthened commercial interests outside the royal circle and enabled them to demand and obtain the institutional changes necessary for economic growth” (Acemoglu, Johnson, and Robinson 2005, p. 550).¹⁷

AJR’s analysis therefore hinges on two claims regarding the historical context: i) the new merchants were economically and politically powerful enough to challenge the system, and ii) their power within Parliament increased to the extent that policies reflected their interests. So, again, it is reasonable to ask: were these two features present in 17th-century England?

Consider first the economic power of the merchant class. By the time of the Glorious Revolution, England’s interests in Atlantic trade were present for well over a century, and merchants clearly benefitted from the expansion in trade. But were they so wealthy that their interests dominated the policy proposals desired by Parliament? The evidence following the Glorious Revolution suggests the possibility that the voice of merchants did indeed dominate Parliament. In the century following the Glorious Revolution, the income of merchants more than doubled relative to the per capita mean (see Table 2). Their increase in income was much greater than that of other classes in Parliament. The two wealthiest groups in 1688, temporal peers and baronets, had lower income relative to the per capita mean in 1801 than in 1688.

Table 2: Who Gained from the New Policies? Income in terms of per capita mean

	1688	1801	Change
Temporal Peers	15.83	14.59	-1.24
Spiritual Lords	6.79	12.16	5.37
Baronets	9.8	9.12	-0.68
Knights	6.43	6.84	0.41
Esquire	5.88	6.84	0.96
Gentlemen	3.66	3.99	0.33
Sea merchant, greater	5.23	11.86	6.63

But just because merchants gained more income than other elites in the 18th century does not mean that the revolts were *caused* by merchants seeking to establish institutions favorable to trade. This could

¹⁷In the context of our model, Parliament’s increased wealth (ρ^A) meant that they had greater bargaining power, as the threat to withhold the purse in the future was greater. Moreover, AJR’s argument entails that as merchants grew wealthier, they were able to influence Parliament to a greater extent, which in turn meant that Parliament’s optimal policy (ε) increased to one further away from the king. As ε moved further away from the Crown’s optimal policy, there was a smaller set of policies that they could agree upon in equilibrium. The logic of our model is therefore consistent with AJR, who claim that it was precisely these changing dynamics in the relationship between Parliament and the Crown that caused Parliament to revolt twice in the 17th century.

certainly be a case of correlation not being causation, as many of the economic advancements of the 18th century were outside the scope of Parliamentary action (e.g., the onset of industrialization). The question, then, is whether the merchants were wealthy enough in 1688 to challenge the system. The data suggest that they were not (see Table 3). In 1688, there were approximately 64,000 merchants who earned 4.41% of the total income of England. Merchant income was more or less equal to that of the 20,800 wealthiest landed elite (temporal lords and baronets), and only around 1/5 of the income of the landed elite as a whole. So, while English merchants were by no means an unimportant class in 1688, they were also by no means wealthy enough to have their voices be the dominant ones, if money were the primary source of power.

Table 3: Did the new merchant become so rich to challenge the system? English Landed vs. Merchant Elite, 1688

	People	Income, p.c.	Total income	Share
England	5,689,322	9.6	54,446,812	100.00%
Landed Elite				
Temporal Lords	8,000	151.5	1,212,000	2.23%
Baronets	12,800	93.8	1,200,640	2.21%
Spiritual Lords	520	65	33,800	0.06%
Knights	7,800	61.5	479,700	0.88%
Esquire	30,000	56.3	1,689,000	3.10%
Gentlemen	120,000	35	4,200,000	7.71%
Freeholders, greater	192,976	13	2,508,688	4.61%
Total	372,096	30.4	11,323,828	20.80%
Merchants, overseas trade				
Merchants by sea, greater	16,000	50	800,000	1.47%
Merchants by sea, lesser	48,000	33.3	1,598,400	2.94%
Total	64,000	37.5	2,398,400	4.41%

Source: Lindert and Williamson (1982).

It still maybe the case that the merchants were willing to contribute relatively more than other groups to oppose the Crown. AJR (2005) argued that the Atlantic traders were outside the Crown's circle and they directed their new wealth to fight him. Specifically, they estimated (p. 565) that the average yearly profit from the Atlantic trade was 200,000 sterling from 1601 to 1650 (adjusted to 1600 prices). Although, as AJR noted, this was a fortune, wars were expensive business. As a fraction of Parliament's annual average expenditure from 1640 to 1659, the sum of 200,000 pounds was only 5 percent (7 percent in wheat terms).¹⁸ Clearly, the merchants were not likely to have contributed all their profits to fight the Crown and the data supports this conjecture. The financial record of the Parliament reveals that the yearly average "voluntary contributions for the support of the good cause against malignants" was less than 16,000 sterling from 1640 to 1651 (for a total of 300,000 sterling, with an additional 9,500 per-year "for the relief of the Irish Protestants" (Wade, 1839, p. 217-8)). The lion share of Parliament's revenue was paid by the landowners, whose land tax amounted to about 1.9 million sterling per-year (ibid).

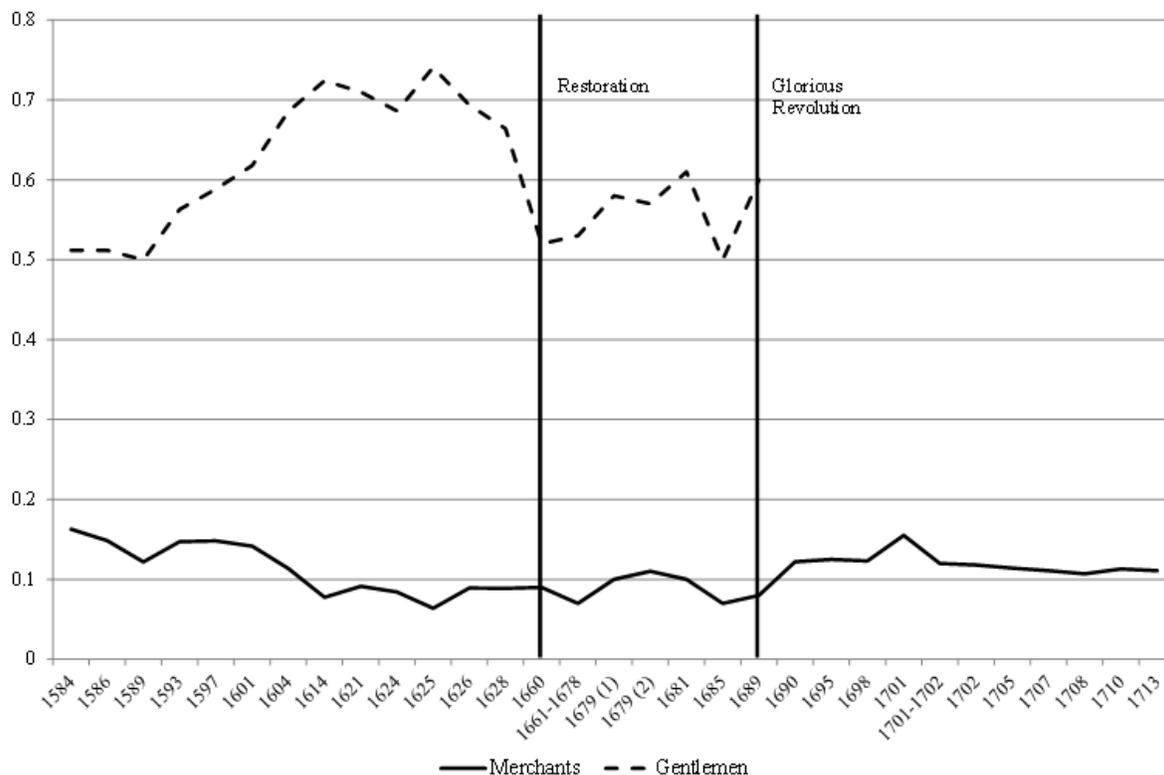
Another possibility highlighted by AJR is that merchants made up an increasingly large portion of Parliament.¹⁹ If this were true, this would have enabled the merchant class to have their voice heard even

¹⁸Wade, 1839, pp. 217-8 based on Sinclair, 1803-4, pt. I, p. 176.

¹⁹AJR claim "After the Civil War, the fraction of MPs who were merchants increased dramatically. Although even in the 1690s this number was not large enough to constitute a majority on its own, as David Stasavage (2003) shows, the interests of

if their income was only 1/5 of the landed elite. But the evidence for this claim is weak, too. In the period leading up to the Civil War, the fraction of merchants in Parliament was declining, and was only around 10% in any case (see Figure 1). The fraction of merchants in Parliament did not change much by the eve of the Glorious Revolution. Indeed, from the period 1584-1713, it appears that there was a steady state of Parliament consisting of around 10% merchants. This was hardly enough to challenge the interests of the landed elite, who comprised at least half of Parliament for the entire century prior to the Glorious Revolution.

Figure 1: Fraction of Merchants and Gentlemen in Parliament, 1584-1713



Sources: Rabb (1998), *The History of Parliament* (<http://www.historyofparliamentonline.org/>)
 *Gentlemen include gentlemen, knights, and noble for 1584-1628, country gentlemen for 1660-1689
 **Merchant includes merchant and merchant knight for 1584-1628

AJR also note that the merchants' power to influence policy was fostered by their affiliation with the Tory party, whose members favored overseas expansion. Although this is an important observation, it is not relevant for the period prior to 1810 or thereabout. Prior to that, only about half of the MPs with either mercantile interests or other non-land related business were affiliated with the Tory party.²⁰

We are not proposing that commitment problems were not an issue in 17th-century England or that wealth did not buy power in this historical episode. As will become clear below, our analysis incorporates these causal relations. What, then, are the important phenomena that are not accounted for within the scope of AJR and NW's analyses? First, both take Parliament and the Crown as exogenous and explain the relationship between them. They leave open the question of why the monarchy *and* Parliament survived the 17th century. If wealth is the source of political power and political power entails wealth, one would expect

merchants were assured by the formation of the Whig coalition of merchants and Protestant landowners" (AJR 2005, p. 564).
²⁰<http://www.historyofparliamentonline.org/volume/1690-1715/survey/members>. Lawyers and commissioned officers were the largest groups of MPs alongside the landowners and the merchants.

a corner solution as a steady-state equilibrium. One body – either the Crown or Parliament – would have predominated. Why did Parliament offer the crown to James I in 1604 rather than governing alone? Why did the Army relinquish power back to the Crown in 1660? Why did James II fail to win in 1688? After all, the most economically advanced country at the time, the Dutch Republic, was a republic.

Second, both analyses do not predict well the observed pattern of conflicts and its absence. If wealth and power reinforce each other, why did Charles I conflict with Parliament while James I did not despite the fact that both had approximately equal incomes as a share of GDP? Likewise, Charles II and James II had similar incomes: why did Parliament revolt against James II but not Charles II? And the incomes (relative to GDP) of these four Stuart monarchs pale in comparison to Henry VIII. Why were such conflicts not an issue under the Tudors in the 16th century? Moving to the Glorious Revolution settlement, why did William and Mary give their consent to the Bill of Rights that constrained the Crown’s power? They had a loyal and large 15,000-troop Dutch army at their disposal – why did they voluntarily submit rights to Parliament that the Crown held for centuries?

The centrality of religion in the conflict is outside the scope of NW and AJR analyses although it was a salient feature of the conflicts. Fears of the alleged Catholicism of the Stuarts played an important role in consolidating their opposition. But the Stuarts made the choice to be Catholic. While James I (the first in the dynasty) was Protestant, his son Charles I married a Catholic, and his two grandchildren, Charles II and James II, converted to Catholicism. These were not private acts but political ones. As Charles II noted in 1670, “Catholicism was best fitted to absolutist rulers” (Troost, 2001, p. 72). Both he and James II implemented policies that – had they survived – would have undermined Protestantism in England. In the context of increasing persecution of Protestants in France at that time, this was a risky proposition and James II paid a heavy price for it. Indeed, an act of Parliament in 1689 stated that the no Roman Catholic, nor anyone married to a Roman Catholic, could hold the English Crown. Why, then, did the Stuarts publicly choose a religion that so deeply antagonized their opponents?

We propose that incorporating *political legitimacy* into the analysis provides a more encompassing explanation which accounts for more aspects than the traditional accounts. In the next section, we show how political legitimacy interacts with the Crown’s income stream (ρ^R) to determine the relative power of the Crown vis-à-vis Parliament, and how legitimacy can be employed to expand the set of parameters over which commitment problems can be solved.

4 The Reformation Legitimacy Crisis

The power of Parliament to challenge the Crown in the 17th century needs to be explained rather than assumed. This section highlights the Reformation as the critical junction in the rise of the Parliament. This legitimacy crisis transpired when Henry VIII broke up with Rome and reformed the Church in England. In 1529, Henry accused his previous chancellor, Cardinal Wolsey, of *praemunire* (taking the authority of the Papacy above the Crown). In 1534, the Act of Succession annulled Henry’s marriage to Catherine of Aragon and permitted him to marry Anne Boleyn. It also established that Boleyn’s unborn child (Elizabeth) would be heir to the throne, not Mary (who was declared illegitimate). The 1534 Act of Supremacy and the 1536 Dissolution of the Lower Monasteries paved the way for Henry VIII to dissolve all of the monasteries of England and expropriate their assets.

Breaking with Rome undermined Henry’s legitimacy because the Tudor dynasty, of which Henry VIII was the second member, had a weak hereditary claim to the throne. Their claim was based on maternal

ancestors and not paternal ones, and the first Tudor King, Henry VII (r. 1485-1509), gained the crown on the battlefield and faced numerous revolts. Moreover, Henry VII did not have the support of a strong peerage group at his accession. The War of the Roses decimated the peers and the prelates of England were appointed by the Yorkish faction whose late king, Richard III, Henry VII deposed. Henry VII sought and received several papal bulls confirming his right to the throne under the threat of excommunication. These bulls were translated to English (Steele, 1910, pp. lxxv-lxxvii),

Prior to the Reformation, but not afterward, Henry VIII could also rely on the Church’s legitimizing powers. In 1521, in the midst of the spread of Luther’s movement in the Holy Roman Empire, the Papacy bestowed upon Henry the title of the “Defender of the Faith”. After Henry’s break with Rome, the Church withdrew the title and excommunicated Henry. This must have been a significant setback to Henry’s legitimacy. He turned to Parliament for legitimation, as was noted by one historian of the Reformation: “the absolute necessity for legitimation and popular backing for the break with Rome forced the King [Henry VIII] into active consultation with Parliament, whether he liked it or not” (Stone 2002, p. 59). In other words, the act of removing the Church and confiscating its wealth altered the institutional basis of political legitimacy in England. By expanding the model to incorporate legitimacy, this proposition can be further evaluated.

4.1 Modeling Legitimacy

This subsection expands the above model to include political legitimacy. We show that adding legitimacy to the model increases the set of parameters over which cooperation between a ruler and an agency is possible and credible. Specifically, it highlights why a wealthy, but low legitimacy ruler (e.g., Henry VIII) may be able to credibly commit to not transgressing rights while a less wealthy, but more legitimate ruler (e.g., Charles I) may not be able to make such a credible commitment.

Legitimacy can be bestowed by a legitimizing agent or agency costlessly and without the bestowing agency losing any legitimacy. For example, a highly legitimate Parliament can legitimize a king by merely declaring that he is the rightful ruler, and Parliament does not lose any ability to legitimize by making this declaration. Second, legitimacy is *reversible*: after it is given it can be taken away without the consent of the receiver. This is not true of resources, which are irreversible: once the agency has transferred resources to the ruler, the ruler can use them in any manner he desires.

This means that the ruler and agency face *intra-period* and *inter-period* trade-offs. The ruler’s intra-period trade-off is one of resources or legitimacy (or both) in return for a compromise on policy. This is similar to the trade-off modeled in Section II, where a trade-off exists between resources and policies. In the present model, the ruler is able to commit over a larger set of parameters since the agency has a means of punishing the ruler within the period by withdrawing legitimacy if the ruler reneges on the offered policy. The ruler and agency also face an inter-period trade-off that is different from the one faced in Section II. An agency that bestows legitimacy in the present makes the ruler more legitimate in the future, which strengthens the ruler’s future bargaining power at the expense of the agency. Likewise, a ruler who chooses to be legitimized by the agency makes the agency more legitimate in the future, thereby strengthening the agency’s bargaining power.

Building off the model laid out in Section II, assume that in addition to resources, both players are exogenously endowed with legitimacy $\lambda_0^R \in \mathbb{R}^+$ and $\lambda_0^A \in \mathbb{R}^+$. This can be interpreted as the cultural foundations of their legitimacy. These are the characteristics that give rulers legitimacy or the agency the capacity to legitimize based on the society’s legitimizing principles. For instance, heredity is an important

legitimizing trait in some cultures but not in others, and, likewise, religious authorities have a greater capacity to legitimize in some cultures than in others. The agency's legitimacy is augmented by $\alpha^A \in [0, 1]$, which is interpreted as its ability to say "no" to legitimizing the ruler. If an agency is not perceived as being able to decline legitimizing the ruler, then its capacity to facilitate beliefs in the ruler's right to rule is diminished. That is, an agency that is under the direct control of the ruler has little capacity to turn down the ruler's request for legitimacy ($\alpha^A = 0$), while an international agency that is completely independent of the ruler can easily turn down a ruler's request for legitimacy, should it so desire ($\alpha^A = 1$). There are two components to λ_0^A , the agency's capacity to say no (α^A) and the other cultural foundations which affect its legitimacy ($\underline{\lambda}_0^A$), so $\lambda_0^A = \alpha^A \underline{\lambda}_0^A$.

In the first stage, the ruler decides whether or not to make an offer to the agency, $A_t \in \{0, 1\}$. If the agency makes an offer, $A_t = 1$, the offer includes a transfer (ρ_t^T) and a policy (p_t^O), as before, but also includes a request for legitimation $\ell_t \in \{0, 1\}$.²¹ In other words, the agency can influence policy by wielding its power of the purse, but it can also influence policy by legitimizing the ruler.

Unless withdrawn, legitimation ($\ell_t = 1$) increases the ruler's legitimacy by $\gamma \in \mathbb{R}^+$ in the current period and the following period, after which it dissipates. This is reflective of the idea that legitimacy can depreciate; a king that has not been legitimized by Parliament in a while does not benefit from the legitimacy it gave him in the distant past.²² Similarly, the ruler's act of choosing the agency ($A_t = 1$) increases the agency's capacity to legitimize by $\theta \in \mathbb{R}^+$ in the current period and the following period, after which it dissipates. That is, the agency's legitimacy is $\lambda_t^A = \lambda_0^A + \theta(A_{t-1} + A_t)$. This underscores the idea that the act of choosing to be legitimized by an agency is a public statement that the agency's opinion is worth listening to.

If the ruler chooses to make the agency an offer ($A_t = 1$), the game proceeds to the second stage; otherwise it proceeds to the third stage. As before, in the second stage the agency chooses whether or not to accept the package proposed by the ruler, $a_t \in \{0, 1\}$.²³ After this stage, the total resources available to the ruler are $\rho_t^R = \rho^R + a_t \rho_t^T$, the total resources available to the agency are $\rho_t^A = \rho^A - a_t \rho_t^T$, and the ruler's legitimacy is $\lambda_t^R = \lambda_0^R + \gamma(a_{t-1} \ell_{t-1} + a_t \ell_t)$. In the third stage, the ruler implements any policy he desires $p_t^I \in \{0, \frac{\varepsilon}{2}, \varepsilon\}$, where p_t^I does not have to equal the offered policy, p_t^O . The period t strategies of the ruler and agency are therefore written as $\bar{s}_t^R = (A_t, \rho_t^T, p_t^O, \ell_t, p_t^I) \subset \bar{S}^R$ and $\bar{s}_t^A = a_t \in \{0, 1\}$.²⁴

Unlike resources, legitimacy is *reversible*: if the ruler implements a policy different from the one he promised in the offer, he loses the legitimacy given by the agency in that period (i.e., $a_t = 0$ and the ruler loses γ units of legitimacy if $p_t^I \neq p_t^O$). A commitment problem still exists, however, since resource transfers are irreversible.

The probability that the policy is followed is a function of the ruler's legitimacy (λ_t^R), the agency's legitimacy should it legitimize the ruler (denoted $L_t^A = a_t \ell_t \lambda_t^A$), and the ruler's access to resources (ρ_t^R). Denote this probability by $g(\lambda_t^R, L_t^A, \rho_t^R)$, where $g_i > 0$, $g_{ii} < 0$ for $i \in \{1, 2, 3\}$, $g_{ij} < 0$ for $i \neq j$ (i.e., inputs are substitutes), and $\lim_{x, y, \text{ or } z \rightarrow \infty} g(x, y, z) = 1$ if $\{x, y, z\} > 0$.²⁵ In other words, there is still a one-to-one mapping between resources and the ruler's ability to implement desired policies, but the magnitude of this mapping depends on the ruler's legitimacy and the agency's legitimacy. The players' period t expected

²¹ $\ell_t = 0$ if the agency is not chosen ($A_t = 0$).

²² Of course, it is possible to model legitimacy as depreciating over a longer time horizon. But the present specification is useful because it highlights the inter-period tradeoff the agency faces in legitimizing the ruler while keeping the model tractable.

²³ $a_t = 0$ if the agency is not chosen ($A_t = 0$).

²⁴ Formally, the strategy space is $\bar{S}^R = \{0, 1\} \times [-\rho^R, \rho^A] \times \{0, \frac{\varepsilon}{2}, \varepsilon\} \times \{0, 1\} \times \{0, \frac{\varepsilon}{2}, \varepsilon\}$

²⁵ We also assume that g is thrice differentiable in all arguments and $\{g_{133}, g_{233}, g_{333}\} < y$, for some positive value of y that is defined in the Appendix. We do not wish to speculate on the value or sign of these third derivatives. We merely note that g_{133} , g_{233} , and g_{333} not being too large is a sufficient condition for Proposition 2 to hold.

payoffs are the same as in equations (1) and (2) (with the $g(\cdot)$ function replacing the $f(\cdot)$ function), and their lifetime expected utilities are the same as in equations (3) and (4) (with \bar{s}_t^R and \bar{s}_t^A replacing s_t^R and s_t^A). After players receive utility, the period ends and the next period begins.

Solving for the existence of a cooperative equilibrium is straight-forward. Here, a cooperative equilibrium is one in which the agency gives the ruler either a positive transfer or legitimacy (or both) and the ruler implements the offered policy. In other words, the ruler maximizes his utility in equation (3) subject to the agency being willing to accept it (the agency's participation constraint), the ruler being better off by making the offer (the ruler's participation constraint), and the offer being one the ruler can credibly commit to implementing (the incentive compatibility constraint). Again, we solve for the existence of cooperative equilibria by assuming that the agency plays a grim-trigger strategy.

As in the model presented in Section II, policy cooperation transpires in equilibrium if and only if the agency's power of the purse is sufficiently strong (i.e., ρ^R is small). The logic is as before: a sufficiently poor ruler weakly enforces the policy without the agency, so it cooperates with the agency in return for resources. However, unlike the previous model, this one captures the cost of lower legitimacy. A wealthy but low legitimacy ruler may compromise over policy in return for legitimacy, while a less wealthy but highly-legitimate ruler may not compromise over policy with the agency.²⁶

Proposition 2 $\forall \left\{ \rho^R, \lambda_0^R, \rho^A, \lambda_0^A, \delta^R, \varepsilon \right\} \exists$ some $\bar{\rho}$ $\left(\rho^A, \delta^R, \lambda_0^R, \lambda_0^A, \varepsilon \right)$ where a cooperative equilibrium exists if and only if $\rho^R \leq \bar{\rho}$. $\bar{\rho}$ is weakly increasing in ρ^A , monotonically increasing in λ_0^A and δ^R , and monotonically decreasing in ε and λ_0^R , *ceteris paribus*.

4.2 The Reformation and the Legitimizing Role of Parliament

If legitimacy mattered during the Reformation, the breakup with Rome should have increased the value of alternative sources of legitimacy. Right after the breakup with Rome, the emerging national church (to which we refer to as the Anglican Church regardless of its changes over time), however, could not have provided an effective substitute because the Crown was its supreme head. Creating an independent national church was not much of an option because, being national in scope, the Crown could not commit not to subdue it in case of dispute. Such commitment was possible with respect to the international and larger Catholic Church. In other words, a Church whose power depended on the Crown could add little to its legitimacy (in terms of the model, λ_0^A and α^A were small).

In contrast, Parliament had the independent power required to be an effective legitimizing agent (i.e., its λ_0^A was large). First, the Commons' legitimizing role was consistent with the prevailing legitimacy norm of consent, or popular representation (Pollard 1920). Second, members of the House of Commons provided the Crown with valuable administrative services that were costly to obtain otherwise. The "classes represented in the House of Commons were . . . left to rule over the countryside and the towns" (Stone 2002, p. 63). They thus extended the royal reach to the countryside and towns and had administrative power vis-à-vis the crown (Greif 2005, 2008). The role of MPs in administrating England is evident in their official roles. Data from Elizabeth's reign indicates that between 80 to 92 percent of the county members of the House of Commons from 1559 to 1601 were Justices of the Peace, the backbone of the royal administration.²⁷ Similarly, during that period, between 52 to 60 percent of the borough MPs were knights, esquires, or country gentlemen

²⁶ ρ^{**} is not a function of δ^A , so it is not included in Proposition 2. The comparative static result with respect to γ is dependent on parameters in the model, so we have excluded it from Proposition 2 for the sake of brevity.

²⁷ These data are from <http://www.historyofparliamentonline.org>. Also see Stone (2002). On administrative power in England and in general, see González, Greif and Jha (2008) and Greif (2008).

and between 61 to 76 percent of them were country gentlemen, lawyers, members of the armed forces, or government officials. Thus, the MPs had administrative power and the ability to limit governance capacity (Stone 2002). Henry could gain from Parliamentary legitimation and the evidence indicates he did.²⁸

If the legitimizing role of Parliament increased, this should have manifested itself in the number of acts passed by Parliament. The same holds with respect to the number of Parliamentary sessions, which were held only if the king summoned Parliament, and the number of bills per session. Although the *ceteris paribus* assumption does not hold, it is reassuring that the evidence confirms these predictions. Between 1509, when Henry VIII came to power, and 1529, when he began clashing with Rome, Parliament was in session in 37 percent of years. In contrast, Parliament was in session 88 percent of years from 1529 to 1546. The yearly average of Parliamentary acts under Henry was 7.7 prior to the Reformation and 31.4 after the Reformation began. Similarly, the average number of acts in the years Parliament was in session was 22 prior to the Reformation and 38.5 subsequently. Table 4 provides the details.

Table 4: Acts of Parliament under Henry VIII, Pre- and Post-Reformation

Pre-Reformation		Post-Reformation	
Year	Acts	Year	Acts
1509	20	1529	26
1510	0	1530	23
1511	23	1531	34
1512	20	1532	16
1513	19	1533	34
1514	26	1534	26
1515	11	1535	63
1516-22	0	1536	52
1523	35	1537-38	0
1525-28	0	1539	28
		1540	80
		1541	46
		1542	48
		1543	25
		1544	0
		1545	32
Annual Average	7.7		31.4

The number of Parliamentary Acts remained relatively high through 1603, when the last Tudor monarch (Elizabeth I) died. Table 5 presents the yearly average number of acts per monarch from 1399 to the Civil War in 1640. These data reveal a low of 2.5 acts a year under Edward IV in the 15th century, a sharp increase to 8.2 a year under Henry VII, 13.5 under Henry VIII and 25.8 under Edward VI.

The conjecture that the legitimizing power of Parliament increased following the Reformation implies that compared to the rest of Europe, England should have been an anomaly in terms of the relations between state

²⁸If the Reformation undermined one of Henry's primary sources of legitimacy, why did he institute it in the first place? Although we are more concerned with the (unforeseen) consequences of the English Reformation, this question does have relevance for our inquiry. The answer is multi-faceted; dynastic concerns (e.g., Henry's divorce from Catherine) were certainly an issue, as were the potential economic and political gains associated with confiscating the wealth of the monasteries. The more general forces encouraging the initial spread of the Reformation in the Holy Roman Empire – the printing press (Rubin 2014), university students (Kim and Pfaff 2012), proximity to the center of the Reformation (Becker and Wößmann 2008, 2009; Cantoni 2012), and other supply and demand features (Pfaff and Corcoran 2012) – had a limited influence on the English Reformation. Instead, Henry VIII opportunistically used the Reformation movement to advance his own agenda.

Table 5: Proclamations and Parliamentary Acts per Year, by Monarch

Monarch	House	Acts	Reign Length	Acts per Year	Proclamations per year
Henry IV	Lancaster	142	14	10.5	
Henry V	Lancaster	76	9	8	
Henry VI	Lancaster	195	39	5	
Edward IV	York	54	22	2.5	6.5
Richard III	York	15	2	6.9	18.6
Henry VII	Tudor	194	24	8.2	13.3
Henry VIII	Tudor	509	38	13.5	9.9
Edward VI	Tudor	166	6	25.8	21.3
Mary I	Tudor	116	5	21.8	19.7
Elizabeth I	Tudor	429	45	9.7	9.3
James I	Stuart	303	22	13.8	23.9
Charles I	Stuart	86	15	3.6	39.5

Sources: Wikipedia and the Chronological Table of the Statutes of the Realm.

revenues and absolutism. A monarch who can finance his way to becoming an absolute ruler would refrain from doing so only if the decline in his legitimacy from doing so is sufficiently high. In pre-modern Europe, representative assemblies and other councils often restricted royal revenues fearing that high revenue would foster absolutism. European rulers became absolute after gaining large sources of income that their subjects could not control. The windfall revenues financed an administration for taxation and rent extraction that perpetuated their power. Spain is the classic example. “The windfall acquisition of precious metals from American mines . . . [led to the] consolidation of absolutist rule” (Drelichman 2005, p. 313).

In early 16th century England, by contrast, a large fiscal surplus and windfall did not lead to absolutism, and Parliament supported enriching the Crown. For more than 60 years (1485–1547) the English Crown’s revenues were more than 12 percent of the GDP. This implies that the Crown could have invested heavily in extractive infrastructure. Henry VII (r. 1485-1509) left his son, Henry VIII (r. 1509-1547), a state treasury with 1.8 million sterling, which was more than twelve times his yearly tax revenue (O’Brien and Hunt, 2013). The main source of Henry VIII’s wealth, however, was derived from the property of the Catholic Church he confiscated during the Reformation, where he gained at least 20 percent of England’s landed property (Sinclair, 1803-4, vol. 1, p. 170). As a result, the average revenues for Henry VIII were 800,000 sterling, or 14 percent of England’s GDP. No other English monarch had higher revenues, in nominal terms, prior to Charles I (r. 1625-1649) (Colquhoun, 1814, p. 3). Although Parliament approved this wealth transfer, it had little control over the property once it was under Henry’s control.

Why did Henry VIII not become an absolute king following the massive transfer of wealth from the Church to the Crown during the Reformation? Indeed, why was Parliament complicit in helping Henry VIII push through the Reformation, when he could have used his new-found wealth to rule autocratically? Henry VIII probably aspired to be a tyrant, as was noted by the Spanish Ambassador regarding his father, Henry VII. In 1498, the ambassador stated that Henry VII “would like to govern England in the French fashion, but he cannot” (quoted in Stone 2002, p. 58).

Yet, Henry VIII did not show any predilection towards autocratic rule in his use of proclamations (regulatory orders passed by executive authority without needing Parliament’s consent). In principle, proclamations

did not have the power of law, implying that transgression could not be punished by touching a "man's life, limb or freehold" (Steele, 1910. vol. 1, p. lxxvi). Such punishment required action before a Common Law judge who was bound by the Acts of Parliament as the source of the law. Proclamations that were not backed by a statutory authority therefore could not be legally enforced and thus represented an attempt to rule without the Parliament.

Table 6 shows that only 2 of the 84 proclamations that Henry VIII enacted during the Reformation were not based on statutory authority (and non-religious), and only 7% of his non-religious proclamations after the Reformation were not based on statutory authority. This is little different than his actions prior to the Reformation (9% not based on statutory authority) and also lower than his predecessor and his successors.

Table 6: Did Proclamations Substitute for the Law? Number of Proclamations, 1480-1553

Monarch	Years	Total	Not based on Statutory Authority			Share Others
			All	Religion	Others	
Henry VII	1485-1509	67	5	0	5	0.07
	1509-1529	80	7	0	7	0.09
Henry VIII	1529-1539	84	5	3	2	0.02
	1539-1547	86	8	2	6	0.07
Edward VI	1547-1549	86	12	2	10	0.12
	1549-1553	55	7	0	7	0.13

Source: Heinze (1976), Table 4.

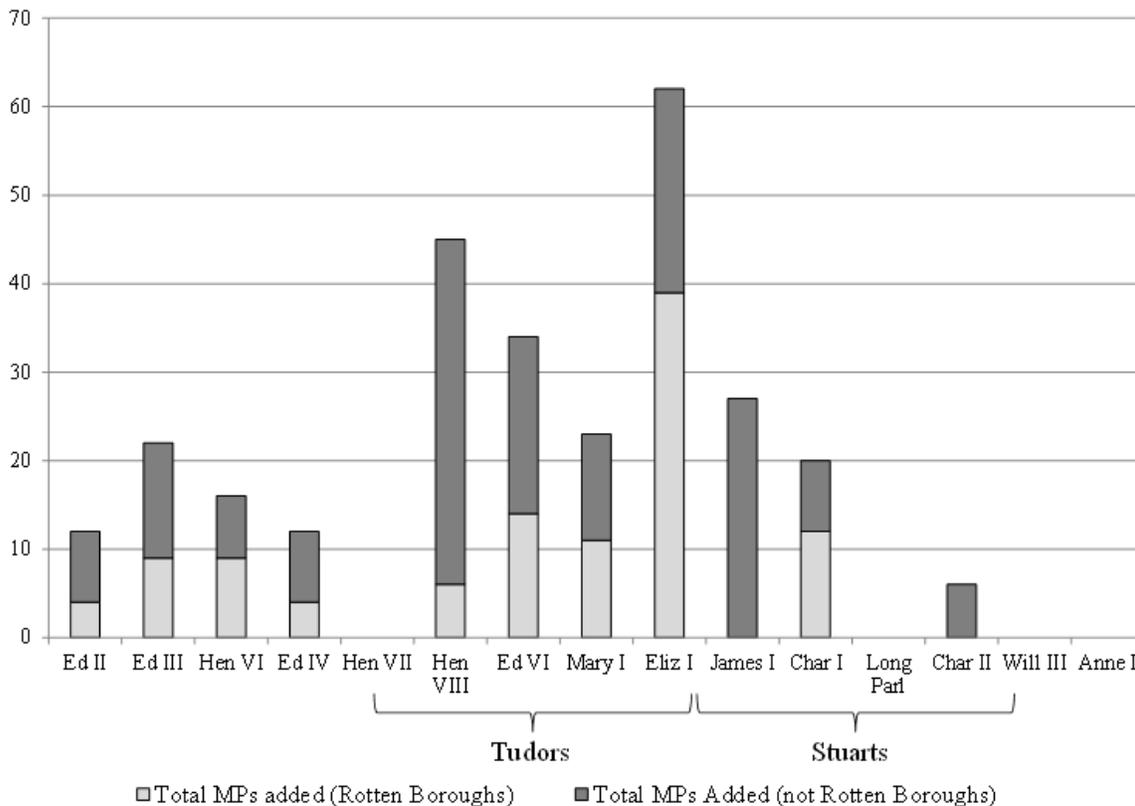
If the 17th century conflicts were about controlling state finance, why were the relations between Parliament and the Crown relatively tranquil under the wealthy Henry VIII but confrontational under the relatively revenue-poor Stuarts? It is true that Henry VIII eventually spent his wealth fighting France without much to show for it. But squandering his wealth in war does not explain why Parliament supported Henry's quest to gain this wealth in the first place or why Henry did not use it on creating a durable administrative system within England.

The endogenous legitimacy framework provides an intuitive answer to these questions. Specifically, it follows from our framework that the more a ruler relies on a legitimizing agent, the more credible his commitment not to undermine the independent power of that agent. The Reformation implied that Henry VIII could no longer gain legitimation from the Catholic Church. If, as we conjecture, Henry therefore relied more on Parliament as an alternative basis for political legitimacy, undermining the power of Parliament would have also undermined Henry's power, and he had little inherited legitimacy (λ_0^R) to fall back on. Creating an alternative administrative structure to replace the one provided by the classes represented in Parliament would have undermined Parliament's legitimizing powers on which Henry relied. If legitimacy mattered, the model predicts that both Henry and Parliament would have benefitted from strengthening the latter.

Following the Reformation, the size of the House of Commons increased substantially. Henry VIII alone added almost as many new members to the Commons as had been added in the two centuries prior to his reign (see Figure ??). It should be emphasized, however, that even though the Henry probably labored to fill the Parliament with MPs who would support his policy toward the Catholic Church, it would have been counter-productive for him to fill the House with MPs without independent power. Such MPs could not have increased his legitimacy. The evidence supports this observation. Figure 2 indicates that nearly all (39

of 45) of the MPs added during Henry’s reign were not from what would be classified as “rotten boroughs” by the Reform Act of 1832. In other words, Henry increased the size of the Commons in a manner that also increased representation – the new MPs represented places in need of actual representation and were not merely foils meant to increase the size of Henry’s support.

Figure 2: Total MPs added, House of Commons



Sources: Powell and Cook (1977), Cook and Wroughton (1980), Cook and Stevenson (1988)

The introduction of new seats (besides the rotten boroughs) gave increased representation to larger swathes of the English elite, thus strengthening their hand vis-à-vis the Crown. This, in turn, made having seats in Parliament more valuable and thus attractive even though it implied paying higher taxes.²⁹ The end result was, according to the historian of Parliament A.F. Pollard (1920, p. 160), that, “the sixteenth century is indeed the great period of the consolidation of the House of Commons, and without that consolidation the house would have been incapable of the work it achieved in the seventeenth. Under the Tudors it becomes a compact and corporate unit, and acquires a weight which makes it the center of parliamentary gravity.”

Evidently, Parliament did not expand its membership following the Glorious Revolution. Moreover, its growth under the Stuarts was small in absolute and relative terms compared to the expansion under the Tudors. The expansion of Parliament under the Tudors is predicted by the endogenous legitimacy perspective, as the House of Commons served as a powerful alternative legitimizing agent to the Catholic Church.

An alternative explanation might be that Parliament was simply subservient to the monarch, who there-

²⁹A city unrepresented in the House paid the county rate of 10 percent rather than 15 percent.

fore found it useful to strengthen and expand Parliament. Yet, the Parliament was not Henry’s side-kick but a power to reckon with. In 1523, for example, Henry VIII demanded taxes of 800,000 for 4 years but the Parliament approved half of that amount. In 1539, Parliament opposed giving Henry power to raise money by royal proclamations. A broader measure regarding the power and use of proclamations was overturned in 1547. Under the Tudors Parliament gained freedom of speech for its members, and the Speaker gained personal access to King and freedom from arrest.³⁰

The increase in Parliament’s power is also evidenced by the fact that they met more frequently after the Reformation (see Table 7). van Zanden et al. argue that the frequency with which parliaments were called is the best metric for their strength in medieval and early modern Europe, since parliaments were only called when the elites were needed by the king, generally for funding war. It was already shown (Table 4) that Parliament met much more frequently in Henry VIII’s reign after the Reformation than before it. This trend continued after the reign of Henry VIII. Only once prior to Henry VIII’s reign did Parliament meet in more than a quarter of the years of any one king’s reign. However, for the four monarchs following the Reformation, Parliament was in session at least one quarter of the years of each reign, and sometimes much more. This trend towards increased meetings of Parliament ended with the reign of Charles I (r. 1625-49), and (for reasons we discuss below) he lost his head as a result.

Table 7: Fraction of years Parliament in session, 1327-1625

Reign	Monarch	Length of Reign	Years Parliament in Session	Fraction Years in Session
1327-1377	Edward III	50.42	3.01	0.06
1377-1399	Richard II	22.29	2.84	0.13
1399-1413	Henry IV	13.48	2.15	0.16
1413-1422	Henry V	9.45	0	0
1422-1461	Henry VI	38.98	8.16	0.21
1461-1483	Edward IV	21.59	6.06	0.28
1483-1485	Richard III	2.16	0.08	0.04
1485-1509	Henry VII	23.68	2.46	0.1
1509-1547	Henry VIII	37.8	14.57	0.39
1547-1553	Edward VI	6.44	4.53	0.7
1553-1558	Mary I	5.33	1.39	0.26
1558-1603	Elizabeth I	44.38	17.35	0.39
1603-1625	James I	22.02	9.11	0.41

By the early 17th century, a pattern of cooperation prevailed in the relations between the Crown and Parliament. This constitutional system balanced between the principles of royal authority (monarchical legitimacy) and parliamentary legislation (consensual legitimacy) as expressing popular consent. Contemporaries understood that balance as historical, unique, and effective: “the prerogative of the King and the Liberty of the people must have a reciprocal relations and respected” (1626, Sir Bulstrode Whitelock). a “just symmetry, which maketh a sweet harmony of the whole” (1630s, Earl of Strafford), and “the King’s Sovereignty and the Liberty of the Parliament . . . do not cross or destroy each other, but they strengthen and maintain the one the other” (Francis Bacon). (*Citation needed*).

³⁰ Sinclair (1802, vol. 1) and Lehmborg (1977, pp. 276-7).

5 Was Legitimacy Important in the 17th century Conflict?

The Tudor dynasty was the first to rely extensively on legitimation by Parliament. The legitimizing power of Parliament was not based on the principle of hereditary monarchy but legislative authority. This authority was recognized, for the first time, in the coronation oath of Edward II in 1308: "Sire, do you grant to be held and observed the just laws and customs that the community of your realm shall determine, and will you, so far as in you lies, defend and strengthen them to the honour of God?" (Warner, 2014). The right of the Parliament to authorize taxation goes back even further.

The Tudor monarchs following Henry VII continued to have weak cultural legitimacy. Edward VI was a child-king and Mary I and Elizabeth I were the first two females monarchs³¹ and both had to overcome the legal impediments that their father used to disqualify them from inheriting the throne. The Tudors therefore relied on Acts of Parliament to legitimize their right to the throne and to pursue a wide range of policies such as confiscating the property of the monasteries, articulating religious principles, and other issues that Parliament was not previously concerned with.

When the Stuart dynasty came to power in 1603, Parliament had been a legitimizing agent for about three quarters of a century. This role had been institutionalized in various procedures and rights it obtained under the Tudors. Was legitimacy important in England's 17th century political conflicts? Was the power of the Parliament based on its legitimizing capacity? Was a conflict about legitimizing principles an integral part of the 17th century conflict?

5.1 Legitimacy and Resources

The model of legitimacy relates the inherent (cultural) legitimacy, λ_0^R , of a ruler and his income endowment, ρ^R , to endogenous variables: the monarch's choice of whether to approach the Parliament for legitimation, whether such legitimation is forthcoming, and transfers among the two parties. If legitimacy influenced the relations between the Crown and the Parliament in the 17th century, the historical evidence should reflect these causal relations. This subsection provides predictions that can be used to substantiate whether this was indeed the case.

The logic of the model indicates that there are four classes of equilibrium outcomes, summarized graphically in Figure 3. When the ruler is sufficiently wealthy and legitimate, he does not need to approach the agency for legitimation, and hence no cooperative equilibrium (CE) exists. When the ruler is wealthy but has low legitimacy, a CE exists where the ruler pays the agency to legitimize him. There is no policy cooperation in this equilibrium: the ruler chooses his optimal policy $p = 0$.³² There is also no commitment problem in this equilibrium, since the ruler offers to implement his favored policy. If the ruler is highly legitimate but poor, a CE exists where the ruler compromises on policy (i.e., $p_t^I \in \{\frac{\xi}{2}, \varepsilon\}$) in return for resources. The ruler can credibly commit to implementing the proposed policy because the agency's power of the purse is strong enough that the ruler fears losing future resources. Meanwhile, the agency does not want to legitimize the ruler because the intra-period trade-off does not work in its favor: legitimation makes the ruler stronger in the future while adding little to the probability that the policy is followed in the present. This equilibrium is therefore similar to the one described in Section 3. Finally, if the ruler is both poor and has weak legitimacy, a CE exists where the agency legitimates the ruler and gives him a positive transfer. The agency is willing

³¹Matilda claimed the throne for 7 months in 1141, but her was highly disputed and she was never formally crowned as the queen of England.

³²The ruler only pays the agency a positive amount when the policy is $p = 0$. The ruler does not need to pay the agency anything to be legitimized if the policy is $p = \frac{\xi}{2}$.

to accept such an offer only if the ruler compromises on policy.

Figure 3: Cooperative Equilibria with and without Policy Cooperation

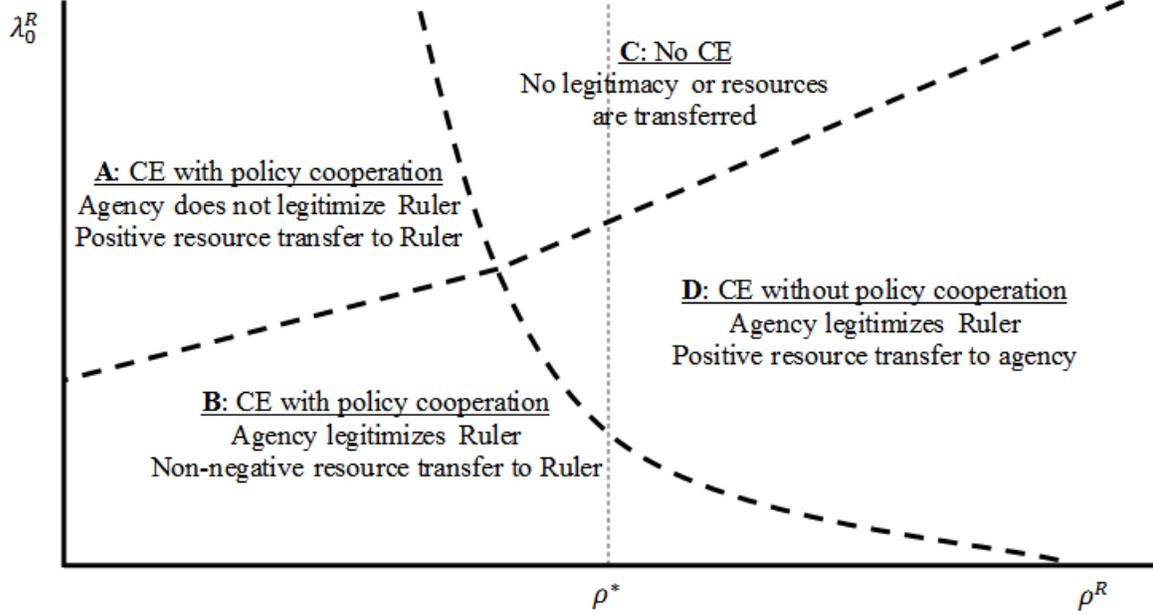


Figure 3 highlights the impact of legitimacy on cooperation. When legitimacy is ignored, the model in Section 3 indicates that there is no CE if $\rho^R > \rho^*$. Commitment is not credible in that model, and the ruler and agency do not negotiate over policy. This figure makes it transparent how adding legitimacy to the model alters this logic. A rich but low legitimacy ruler can credibly commit to cooperating with the agency, while a less wealthy but highly legitimate ruler cannot. It is true that, *holding the ruler's legitimacy constant*, the parameter space over which cooperation is possible is decreasing in the ruler's resources, but legitimacy was not incorporated into the previous model – nor is it incorporated into the models of NW or AJR.

The following proposition formally defines the range over which each of these four equilibrium outcomes arise, and it describes comparative statics with respect to each outcome. Table 8 summarizes the key results.

Proposition 3 $\forall \left\{ \rho^R, \lambda_0^R, \rho^A, \lambda_0^A, \delta^R, \varepsilon \right\} \exists$ some $\tilde{\rho} \left(\lambda_0^R, \rho^A, \lambda_0^A, \delta^R, \varepsilon \right)$ and $\tilde{\lambda} \left(\rho^R, \rho^A, \lambda_0^A, \delta^R, \varepsilon \right)$ where multiple equilibrium outcomes arise:

- i) No CE: $\ell = 0$ and $\rho^T = 0$ if $\rho^R > \tilde{\rho}$ and $\lambda_0^R > \tilde{\lambda}$
 - ii) CE without policy cooperation but with legitimation: $\ell = 1$ and $\rho^T < 0$ if $\rho^R > \tilde{\rho}$ and $\lambda_0^R \leq \tilde{\lambda}$
 - iii) CE with policy cooperation but no legitimation: $\ell = 0$ and $\rho^T \geq 0$ if $\rho^R \leq \tilde{\rho}$ and $\lambda_0^R > \tilde{\lambda}$
 - iv) CE with policy cooperation and legitimation: $\ell = 1$ and $\rho^T \geq 0$ if $\rho^R \leq \tilde{\rho}$ and $\lambda_0^R \leq \tilde{\lambda}$
- $\tilde{\rho}$ and $\tilde{\lambda}$ are monotonically increasing in δ^R and λ_0^A , weakly increasing in ρ^A , and monotonically decreasing in ε . $\tilde{\rho}$ is monotonically decreasing in λ_0^R , and $\tilde{\lambda}$ is monotonically increasing in ρ^R , ceteris paribus.

5.2 The Stuarts in the Context of the Model

Do the insights of Proposition 3 provide any insight into the 17th-century conflicts? The proposition indicates that the ruler's inherent/cultural legitimacy (λ_0^R) and access to resources (ρ^R) dictate the relationship

Table 8: Multiple equilibrium outcomes

		Ruler's Legitimacy		
		Low	Medium	High
Ruler's Resources	Low	Legitimize: Yes	Legitimize: ?	Legitimize: No
		Transfer: to ruler	Transfer: to ruler	Transfer: to ruler
		Policy Cooperation: Yes	Policy Cooperation: Yes	Policy Cooperation: Yes
	Medium	Legitimize: Yes	Legitimize: ?	Legitimize: No
		Transfer: ?	Transfer: ?	Transfer: ?
		Policy Cooperation: ?	Policy Cooperation: ?	Policy Cooperation: ?
	High	Legitimize: Yes	Legitimize: ?	Legitimize: No
		Transfer: to agency	Transfer: ?	Transfer: No
		Policy Cooperation: No	Policy Cooperation: No	Policy Cooperation: No

Legitimize = Yes if agency legitimizes ruler in equilibrium
Transfer = player receiving transfer
Policy Cooperation = Yes if $\varepsilon/2$ or ε are equilibrium policies
 ? = outcome based on magnitude of λ_0^R or ρ^R

between the Crown and Parliament. It is therefore useful to derive a metric of λ_0^R and ρ^R for the Stuart monarchs. There are three primary characteristics of a monarch that contributed to λ_0^R given the legitimacy principles of 17th-century England: whether he was an adult male heir, whether there was disputed ascension to the throne, and whether he supported the Church of England. These characteristics of each of the 17th-century Stuart monarchs are summarized in Table 9. Charles I was the only Stuart monarch who came to the throne as the undisputed king, and he was the first male heir since Henry VIII. Charles II was placed back in the throne by Parliament during the Restoration. James II was the brother of Charles II, and a faction of Parliament sought to exclude him from succession to the throne during the Exclusion Crisis (1679-1681). James I was the only openly Protestant monarch of the 17th century. James II was openly Catholic, and Charles II was suspected of having secretly converted to Catholicism (and indeed, he converted on his deathbed). Charles I married a Roman Catholic and chose policies antagonistic to reformed Protestants, but he was not openly Catholic.

Table 9: Legitimacy Scores of the Stuart Monarchs

Monarch	Adult Male Heir	Undisputed Ascension	Supported Catholicism	Legitimacy Score
James I	No	No	No	Low
Charles I	Yes	Yes	Some	High
Charles II	Yes	No	Yes	Low
James II	No	No	Yes	Very Low

Note: Yes = 1, Some = 0.5, No = 0 in first two columns;
 Yes = 0, Some = 0.5, No = 1 in 'Supported Catholicism' column;
 Legitimacy Score: 0 = Very Low, 0.5-1 = Low, 1.5-2 = Medium
 2.5 = High, 3 = Very High

The fiscal independence of the Stuarts is expressed by the fraction of GDP they had under their control.

We calculate this total by first collecting the fraction of their revenues not received by direct taxation. This represents the fraction of their revenue over which there were no strings attached. We then multiply this fraction by the ratio of their income to GDP to derive the fraction of GDP under their control. These data are summarized in Table 10. While the Stuarts control over England’s resources pales in comparison to Henry VII and Henry VIII, none of the Stuarts lacked fiscal independence: each controlled at least 1.3% of GDP. James II had the highest degree of fiscal independence since Henry VIII, controlling an average of 3.5% of GDP during his reign.

Table 10: Fiscal Independence of Tudors and Stuarts

Monarch	Non-direct Tax/ Revenues	Income/ GDP	Non-direct Tax/ GDP	Fiscal Independence
Henry VII	63.1%	10.1%	6.4%	Very High
Henry VIII	60.1%	14.2%	8.5%	Very High
Edward VI	74.4%	4.4%	3.3%	High
Mary I	48.9%	4.2%	2.0%	Medium
Elizabeth I	58.0%	3.0%	1.7%	Medium
James I	66.3%	2.0%	1.3%	Medium
Charles I	65.8%	2.5%	1.6%	Medium
Charles II	65.7%	3.9%	2.5%	High
James II	88.1%	4.0%	3.5%	High

Fiscal Independence score based on Not-direct tax/GDP ratio

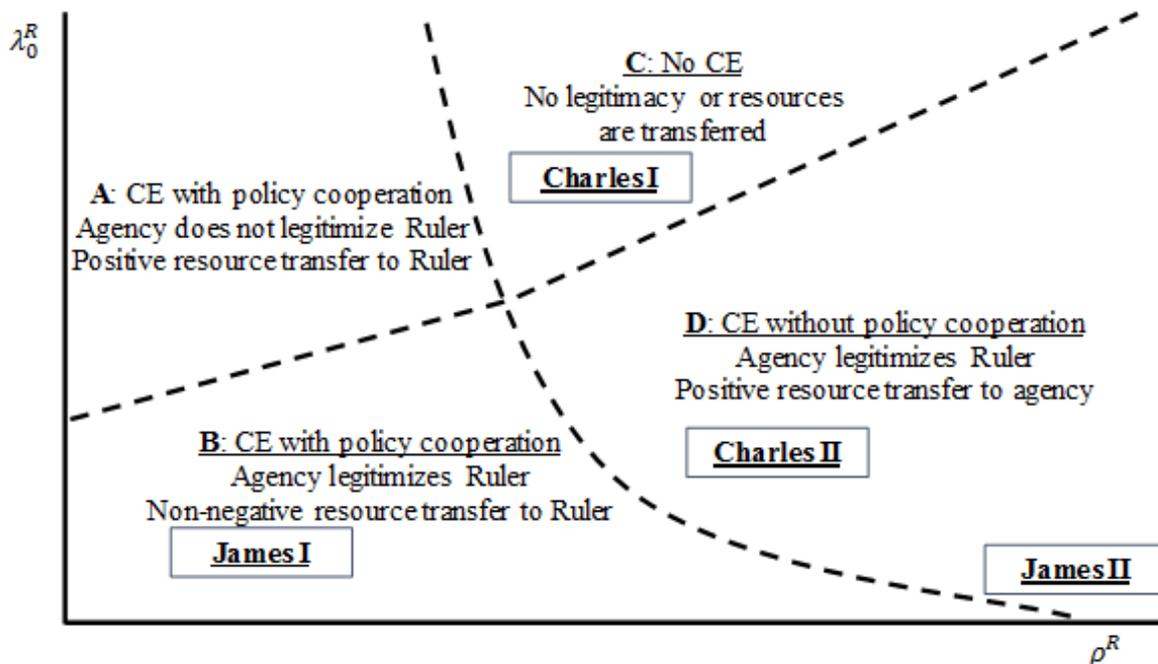
Score: > 4% = Very High, 2-4% = High, 1-2% = Medium, < 1% = Low

We combine the data from Tables 9 and 10 and place them within the context of the model. Figure 4 shows the results. The model indicates that a ruler with James I’s legitimacy and access to resources would have likely been in the lower left quadrant of the figure. He had low legitimacy and lower access to resources than any of the other Stuarts. The model suggests the possibility that Charles I was located in the upper-right quadrant. As the first adult male heir since Henry VIII, he had very high inherent legitimacy. It is open to debate whether his access to resources were high enough to place him in this quadrant, but his actions, noted below, suggest that this was the case. The model also indicates that Charles II and James II were in the lower-right quadrant. Both had more access to resources than James I and Charles I, and they both had low inherent legitimacy.

We now turn to whether equilibrium outcomes predicted by the model provide any insight regarding 17th-century Crown-Parliament relations. Specifically, we consider three variables that are endogenous to the legitimizing process: whether the monarch received an explicit act legitimizing their rule, their share of total taxes coming from direct taxation, and the number of Parliamentary acts per year. These metrics are summarized in Table 11. The first metric provides an indication of the role that Parliament played as a legitimizing agent, although Parliament could have played such a role without passing such an act. The second metric indicates the degree to which Parliament and the Crown cooperated: a greater share of direct taxes meant that Parliament contributed more to the Crown’s purse. The number of Parliamentary acts serves as a proxy for the power of Parliament to implement their desired policies through legislation.

The outcomes detailed in Table 11 are consistent with the predictions found in Figure 4. Figure 4 indicates that James I should have sought legitimation and resources from Parliament in return for a compromise on policy. This is precisely what the data indicate. Parliament’s first act under James I was an act of

Figure 4: Multiple Equilibria under the Stuarts



legitimation, the Succession to the Crown Act 1603 (1 Jac. I c.1). Parliament gave James I a higher share of total taxes than any other Stuart monarch. In return, the received more say on policy - not as much as the weakly legitimized Tudor monarchs Edward VI or Mary I (or even post-Reformation Henry VIII), but much more than Charles I or James II.

Crown-Parliament relations, of lack thereof, were much worse under Charles I. Parliament did not legitimize him - although as the first adult male heir since Henry VIII, the need for such an act was lower. And while direct taxes made up a greater share of total taxation than either of his successors, it was still low relative to the Tudors. Most strikingly, the number of acts that Parliament passed were very low during his reign. This should not be too surprising: Charles famously refused to call Parliament from 1629 to 1640, embarking on a period of self-rule. The model provides an explanation for his actions. Charles I was wealthy, controlling 1.6% of GDP, but not so wealthy that he could rule on his own where the likes of Henry VII, Henry VIII, or his sons Charles II and James II could not. Yet, Charles I was wealthy enough to rule in a period where England was not fighting in any wars, and he was legitimate enough that he did not need legitimation from Parliament.

Charles II had more access to resources than his father, Charles I, but he also had weaker legitimacy. He was restored by Parliament in 1660, and on May 8 of that year Parliament affirmed that Charles II was "the most potent and undoubted King" since the moment of his father's execution. While Parliament gave him a smaller share of taxes than his predecessors, Charles II did compromise with them: the number of yearly Parliamentary acts during his reign was greater than any monarch in over a century. Yet, the model predicts that a wealthy but low legitimacy ruler like Charles II should seek legitimation from Parliament while giving it resources rather than compromising on policy. How can the model account for the high number of acts passed during his reign? The key insight here is that although Charles II's first Parliament was in session for 19 years, he received their support by widespread corruption. Most prominently, Charles I re-chartered

Table 11: Endogenous Variables: Tudors and Stuarts

Monarch	Legitimacy Act	Direct tax/total tax	Acts per Year
Henry VIII (pre-Reformation)	No	59.4%	7.7
Henry VIII (post-Reformation)	No	74.0%	31.4
Edward VI	No	76.7%	27.7
Mary I	Yes	83.5%	23.2
Elizabeth I	Yes	63.7%	9.5
James I	Yes	46.5%	13.8
Charles I	No	43.5%	5.7
Charles II	Yes	37.9%	21.6
James II	No	13.1%	7.8

boroughs in order to bring his allies into Parliament. Hence, he was able to change the *preferences* (decreasing ε) of Parliament to those closer to his own. As indicated by the model, this should increase the size of the parameter space over which cooperation was possible.

Finally, James II had the highest income of the Stuarts but also the lowest legitimacy. He also had the worst relationship with Parliament. His share of direct taxes was minimal relative to the other Stuarts and the Tudors, and Parliament passed relatively few acts during his reign. He also did not receive an act of legitimacy. Why would such a low legitimacy ruler have such a bad relationship with the agency who could potentially legitimize him? We answer this question in the next section, where we extend the model to include the possibility of the ruler changing legitimizing agencies. In short, we argue that James II was so wealthy that he had incentive to attempt to change legitimizing agencies: rather than be legitimized by Parliament (Common Law), James II chose legitimation through the Catholic Church.

5.3 Changing Legitimizing Agencies

This section is forthcoming. The model is worked out, but the proofs are not complete. The upshot is that a sufficiently wealthy or sufficiently legitimate ruler will want to change agencies to one that - even if it can provide less resources or legitimacy - has preferences more closely aligned with him. We view this as the temptation to choose religious legitimation rather than Parliamentary legitimation.

6 English Legitimizing Principles on the Eve of the Transition

The evidence in the previous section supports the conjecture that political legitimacy mattered. Resources alone are insufficient to account for the reasons that Parliament, although often in an opposition to the Crown, nevertheless maintained the monarchy. This section further substantiates the importance of political legitimacy in the rise of the rule of law during the seventeenth century. Specifically, it delves deeper into the content of the legitimacy principle that emerged in England on the eve of the transition. It first presents evidence regarding the process through which the law, embodied in Acts of Parliament, became the legitimizing principles of policies. At the beginning of the seventeenth century, the extensive reliance on Acts of Parliaments by the Tudor monarchs was accompanied by the development of legal theory and political philosophy that justified the rule of law as a legitimizing principle.

The section then proceeds to examine the explanatory power of the conjecture that the law became a

legitimizing principle. It thus explains puzzling aspects of the 17th-century conflicts. Parliament regularly accused the crown of abusing property rights and financing its operation in an unacceptable manner. At the same time, Parliament constantly offered to the Crown to pay it to cease the alleged abuses. It is a perplexing action if one holds that wealth or coordinating ability is the only source of power. Why would the Parliament be willing to transfer funds to a monarch who abused rights? Similarly puzzling is that following the Civil War the Star Chamber, the court that impose proclamations by the King was abolished. At the same time, Parliament allowed the Crown to better control the armed forces in England. If the conflict was about protection of property rights, why would the parliament deprive the king from a court but not an army?

6.1 The Evolution of the Law as a Legitimizing Principle

The idea that the law legitimizes has deep roots in the English (and more generally Western) legal and political traditions (Berman 1983). The assertion that legislative authority is jointly held by the community, through Parliament, and the Crown goes back to Edward II. In his coronation oath (1308) he swore to hold, observe, and protect the laws that the community (that is, Parliament) will enact with his approval. Prior to the Tudor dynasty, however, the Crown did not rely much on the law to legitimize its policies. This, however, changed under the Tudors as discussed above.

Following the Reformation, Henry VIII and the other Tudor monarchs relied extensively on Acts of the Parliament to legitimize their policies. The chance events that led to a string of weak monarchs contributed to their need to rely on Parliament. Edward VI was a child-king and Mary I and Elizabeth I were the first two females who were crowned Queens in England. Both also had to overcome the legal impediment that their father used to disqualify them from inheriting the throne. The Tudors therefore extensively relied on Acts of the Parliament to legitimize their right to the throne and in pursuing a wide range of policies.

By the late 16th century, legal theory and political philosophy had advanced normative and positive explanations for why the law should be the dominant legitimizing principle. One important contributor was Sir Edward Coke, the greatest jurist of the period who served as an MP and held various official legal positions (such as Chief Justice and Attorney General) from 1592 to 1616. As a scholar, jurist, and politician Lord Coke labored to articulate on and implement the principle that proclamations do not have the power of the law.

Sir Coke was one among many of the lawyer MPs who labored to subordinate proclamations to the law. The History of Parliament online summarizes a large body of work on this issue by noting that “Undoubtedly the most influential group of professionals in the Commons were the lawyers. It was they who helped lead the charge against monopolies in 1601, the Union in 1604 and 1606-7, and impositions in 1610 and 1614. Lawyers also played a key part in the revival of impeachment in 1621 and 1624, in opposing Buckingham in 1626, in defending the liberties of the subject against the arbitrary actions of the Crown in 1628 and in complaining against the continued levying of Tunnage and Poundage in 1629. So indispensable were they during the imposition debates of June 1610 that a separate register of their names was kept to ensure their attendance”.³³ Table 12 presents the percentage of lawyers in the House of Common in the late 16th century and the crucial years leading to the Civil Wars.

Although the motivation of the MP lawyers varied, Sir Coke epitomizes the case in which they neither had a particular interest in long distance trade nor feared for their property. He was motivated by the desire to advance what he considered to be right and appropriate for England political organization.

³³<http://www.histparl.ac.uk/volume/1604-1629/survey/v-composition-house-commons>; Accessed Jan. 23, 2014.

Table 12: Lawyers in the House of Commons

Year	Seats	Number Lawyers	% lawyers
1559-1601			22.0%
1604-10	468	100	21.4%
1614	471	90	19.1%
1621	477	81	17.0%
1624	481	77	16.0%
1625	489	60	12.3%
1626	489	78	16.0%
1628-9	489	64	13.1%

Source: History of Parliament Online

The Puritans were another important group with an ideology that rejected the prerogative power of the Crown. For the Puritans, the Bible was a manifesto against tyranny whether in church or state. After all, the Jewish Bible describes how God created man in his image. Kings were created by men who, for practical reasons, decided that an earthly ruler would be useful. As such, the Crown was an agent of the commonwealth rather than the other way around (Tyacke 2010).

In summary, by the early 17th century a dominant constitutional view was of a balance between the principles of royal authority (monarchical legitimacy) and parliamentary legislation (consensual legitimacy of Parliament as expressing popular consent). "The King's Sovereignty and the Liberty of the Parliament . . . do not cross or destroy each other, but they strengthen and maintain the one the other" (Francis Bacon).

6.2 Do Proclamations Legitimize? From Henry VIII to the Civil War

The contemporary European constitutional theory favored the Divine Right of Kings according to which monarchs have absolute power. The Stuart king concurred and James I expressed this position in his *The Trew Law of Free Monarchies* (1598) and in his coronation ceremony. Kings, according to him had the right to rule without a parliament. His grandson, Charles II reiterated this position in his coronation ceremony. "At the coming of Christ there was nothing but Monarchy in the World; so that Monarchy as it was instituted by God at the Creation, so it seems to be restored by Christ at the Redemption of Mankind, and to be recommended both by the Father and the Son as the best an only Form of Government for all Nations." (Coronation sermon, Charles II, 1660).

If legality was an effective legitimizing principle, it should have constrained the Stuarts from becoming absolute rulers. Was this the case? The evidence indicates that legal considerations greatly influenced the way that the monarchy attempted to become absolute.

As is well known, the Stuarts never challenged the idea that Parliament had the legal right to legitimize taxation. What is often overlooked, however, is that when the Stuarts circumvented Parliament in order to increase their revenues, they generally did so in a legal or quasi-legal manner. In particular, they increased revenues without Parliament's approval by re-introducing feudal and other levies that had been previously collected without the approval of Parliament. They similarly relied on precedents such as the right of Kings to change the custom rate.

Proclamations were the main tool that the Stuarts used to increase their revenues. Proclamations were customarily a royal prerogative that allowed them to issue regulations without the approval of Parliament.

Proclamations were previously used by the crown to govern and to respond in time of emergencies, such as invasions, without having to wait for the Parliament to assemble. Proclamations enabled the Stuarts to raise funds without breaking the law although acting in contrary to the spirit of the law.

In many cases the legitimizing power of the law was sufficiently strong that even breaking the spirit of the law undermined the implementation of the Crown's policy. To illustrate, consider the "ship money," the main financial instrument used by Charles I to finance his government during the years of his personal rule. According to Acemoglu and Robinson (2012), Charles I "levied many fines and charges, the most contentious of which was 'ship money' – in 1634 taxing the coastal counties to pay for the support of the Royal Navy and, in 1635, extending the levy to the inland counties. Ship money was levied each year until 1640" (p. 189). Between 1635 and 1641, the Ship-Money (1635-41) provided Charles I with about a quarter of his income.

Why was the ship money contentious? Strictly speaking it was legal and it was also customary, as it was raised in the past to protect England from naval invasion. In fact, initially it was welcomed by the population, as noted in 1635 by the "Venetian Ambassador [in London who] thought the good response was because the people were 'eagerly jealous' to secure the sovereignty of the sea'" (Gregg 1984, p. 236). The last imposition of the ship-money, in 1639-40, however, yielded only 25 or 21% of the total demanded (ibid, p. 290).

The reason that Charles I had difficulty collecting the ship money was that it was not considered legitimate. The authority to impose ship-money was based on the right of the Crown to declare a state of emergency when England was invaded and to collect money to defend it. Charles I, however, demanded payment despite the fact that no invasion was on the horizon and he demanded it on a regular basis over several years. The collection was therefore hindered because it was perceived to be no more than a regular tax and therefore had to be approved by Parliament.

This insight is suggested by a communication to the King from his supporters. One of Charles I's personal friends, the Earl of Danby, wrote to him in 1636 that "it was not so much ship money, as the method of raising it, of which people were complaining, and that only by summoning a Parliament could Charles reconcile his subjects to payment. In making his case Danvers [the Earl] spoke in terms of common law and of 'fundamental law'." Another supporter, the Earl of Warwick, noted in the same year that his "tenants in Essex were being particularly lax in paying ship money. They could not consent, he said, to such a prejudice of the 'liberties of the kingdom'" (Gregg 1984, King Charles I. p. 301-2).

More generally, it is significant to note that the main way that Parliament prevented the Crown from collecting revenues based on its prerogative power was to issue an Act to this effect. The challenge to Parliament facing doing so however was that an act requires the approval of the king as well. Accordingly, Parliament had to wait until the financial needs of the King were sufficiently large for him to be willing to exchange property rights in the return for income. There are many examples of Parliament acting in such a manner. Table 13 presents the revenue sources that the Stuarts used to evade Parliamentary authority, the prerogative on which it was based on, the legal case that substantiated its legality, and the Act which ended it.

It is significant that Tudors, having lower legitimacy, attempted to get an Act of Parliament that gave proclamations the power of the law. In 1539, Henry VIII got Parliament to enact the Proclamation Act that recognized for the Crown right to issue and enforce proclamations under certain conditions. The Act was repealed at the beginning of Edward VI's reign. The issue was debated again in 1556 and the judges concluded that the Crown was entitled to issue proclamations on any matter but can't thereby change laws

Table 13: The Abuses of the Stuarts

Means	Prerogative	Legality	Ended by
Monopolies	Commercial policy	Undisputed	1624, Statute of Monopolies
Selling Titles	General right	Undisputed	Unchallenged
Forced loans	Feudal rights		1660, The Tenures Abolition Act
Knight Fees,	Dispensing power	Darnel, 1627-28	1628, Petition of Rights
Customs, etc	Commercial policy	Bate, 1606	1641, The Tonnage and Poundage Act
Ship-Money	Declare emergency	Hampden, 1637	1641, Act Declaring Illegality of Ship Money
Star Chamber, fines	Administrating the state	Undisputed	1641, Act for the Abolition of . . .

Sources: Anonymous (1856), Anderson (2011), Wasson (2000).

or make new laws. The Crown could only confirm and ratify a law or statute. Proclamations could be used only to impose a fine, forfeiture, or period of imprisonment. This decision defined the boundaries within which the Star Chamber, granted to Henry VIII in the Act of Supremacy (1534), was supposed to keep as the Royal court in charge of enforcing compliance with proclamations.

An intuitive implication of our model implies that the increasing ideological bifurcation between the Parliamentarians and the Crown (that is, increase in ε) will motivate the latter to rely on proclamations instead of acts of Parliament. On the one hand, proclamations were a royal prerogative and thus did not need Parliamentary legitimacy, which legal decrees would have required. On the other hand, governing without relying on the Parliament for legitimation undermined its legitimating authority

James I in fact relied on proclamations when he assumed power more than any Tudor monarchs. He issued 32 proclamations in his first nine months and 16 in the second. Elizabeth, in contrast, issued only five proclamations in her first year and no more than 18 in any given year (Heinze, 2008, p. 240). Over the years the House of Commons expressed concern about the use of proclamation and the issue came to a head in July 1610 when the House of Commons presented a petition protesting proclamations. In particular, the petition noted that the manner they are used is such that “a general fear spread amongst your Majesty’s people, that proclamations will by decrees grow up and increase to the strength and nature of laws” (ibid, p. 237).

The king’s response was to repeal most of the specific proclamations the House complained about, to formally recognize that proclamations do not have the power of the law and to continue to use them with more care and subtlety. This subtlety, however, reveals the legitimizing power of the law. With minor exceptions, the proclamations issued between 1610 and 1621 generally did not mention fixed penalties but noted that the penalties had to be lawful (Steele, 1910, vol. 1, p. xciv).

Comparing the use of proclamations by James I and Charles I reaffirms the importance of cultural legitimacy. Although James and Charles had similar economic power, Charles had higher legitimacy, implying that cooperation was more difficult to sustain. A lower gain from cooperation, in turn, implied stronger incentives to rely on proclamations. In fact, “the reign of Charles I marks the highest importance of Royal Proclamations, whether regarded from a legal, a social or a political standpoint” (Steele, 1910, p. xcvi). In particular, they were enforced by the authority of the Star Chamber by the authority of the king’s council and not the Parliament. They “superseded the ordinary law in the matters they dealt with” (ibid, p. xcvi).

6.3 Religion in the Glorious Revolution

The Bill of Rights of October 1689 demanded that every English sovereign should, on the first sitting of Parliament after the coronation, audibly repeat and subscribe to the Declaration against transubstantiation and describe the Mass as idolatrous, as in the Test Act of 1678. This Coronation Oath was first taken by the last Stuart monarch, Queen Anne, in 1702; and all her Hanoverian successors followed suit into the 20th century. The demand that the English monarch would be Anglican follows a tradition going back to the sixteenth century requiring any public official would take an oath to effect that he is Anglican.

The direct cause of the Glorious Revolution (1688) was not financial but religious. The first Parliament summoned by James II in 1685 provided him with a generous financial settlement that enabled him to govern without parliamentary grants. But Parliament refused James's demand to grant toleration to Catholics. Granting such toleration would have enabled them to hold public offices. James dissolved Parliament and used the royal prerogative to dispense with laws to appoint Catholics to positions in the army and the government.

The historical context within which these actions were taken was such that one can see why the Anglicans in England adamantly objected these measures. In the same year (1685), the king of France, Louis XIV, revoked the Edict of Nantes (1598) that granted the Calvinist Protestants of France rights. The persecution that followed eliminated the Protestant community in France. James nevertheless further adopted policies likely to fuel such fear. In 1687, for example, he seized Magdalen College in Oxford and turned it to a Catholic seminary. In addition, James turned to re-chartering the English boroughs in a way to ensure that non-Anglicans would be elected for public positions and the Parliament. In his four years in power James II re-chartered more towns than Charles II did in the previous 20 years (see table 5).

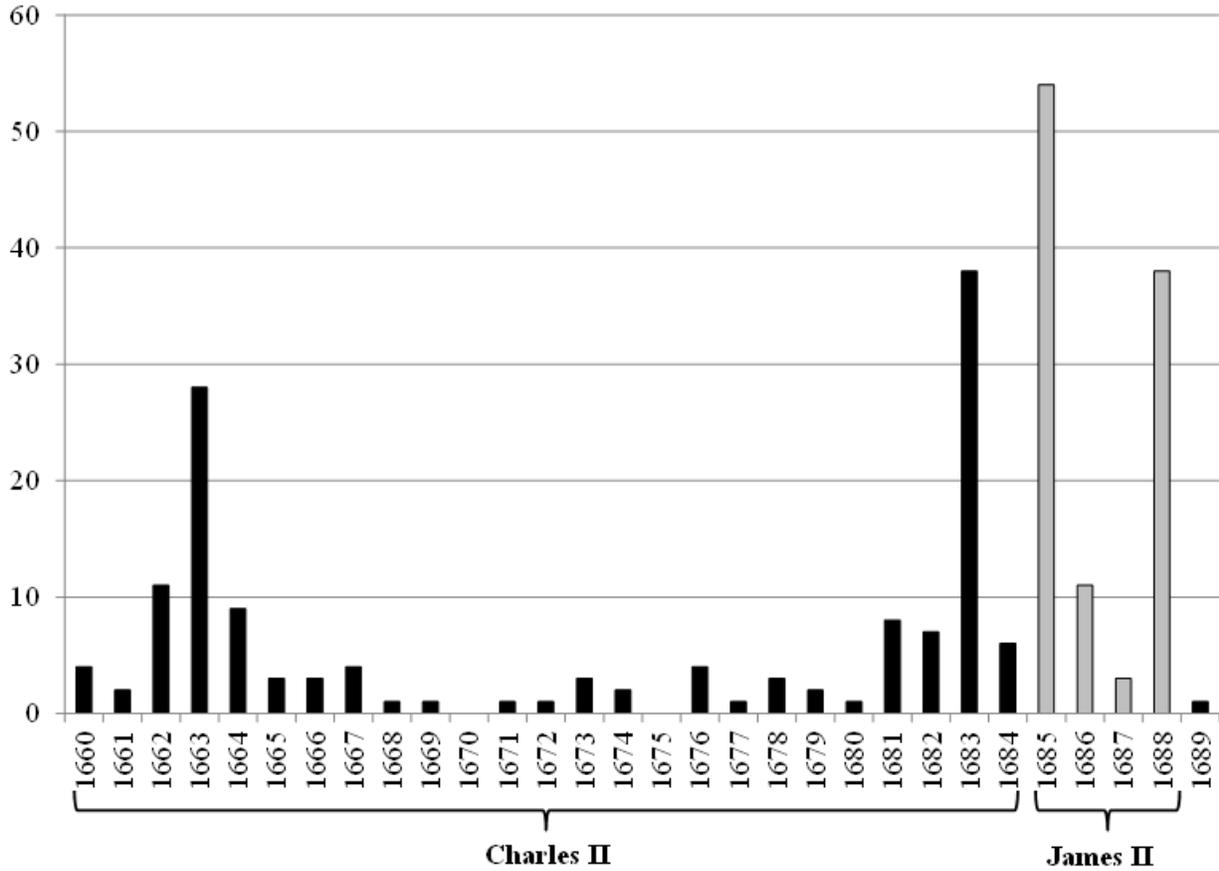
The Anglicans might have hoped that these policies would not last long. James was 52 when crowned and his heir was supposed to be Mary, a Protestant. In 1688, however, he had a son, James III, whom he baptized Catholic. Twenty days later, William, the husband of Mary, was invited to invade England. The Glorious Revolution was set in motion and once William landed James's army disintegrated with many joining William. Although William landed with an army about a third the size as James's army, the latter were unwilling to fight for a monarch they probably considered illegitimate.

Why then did James II act in a way that antagonized the Anglican majority? It is possible that James believed that the French would prevail against the League of Augsburg, which aimed to confront it. It may also be that the Anglicans in Parliament feared that Catholics would outcompete them in gaining public office.

Yet, the drift in favor of Catholicism was not specific to James II and was a constant feature of the Stuart dynasty. Within three months of ascending to the throne, Charles I married the Catholic princess Henrietta of France, stirring suspicion that Charles I would try to undermine the Anglican Church. And indeed, Charles's most controversial religious policies involved the imposition of an anti-Calvinist brand of Protestantism, Arminianism which he accepted. Meanwhile, Charles II secretly converted to Catholicism and James II did so publicly (see Table 14). To place this transition in perspective, note that this is the only European dynasty that adopted a religion that was not held by the majority of their subjects.

A consistent explanation to this religious drift is that the Stuarts sought a transition to an alternative legitimacy principle: the Catholic faith. In other words, they sought a return to the legitimacy principle that dominated England prior to the Reformation. While this specific conjecture requires further substantiation it is notable that it was fully implemented only under James II. Our model predicts that the motivation to adopt a new legitimizing agency and principle is strongest for a ruler who is resource-strong but legitimacy-weak.

Figure 5: Royal Borough Charters of Incorporations, 1660-89



These are precisely that characteristics that describe James II.

7 Conclusion

England experienced rapid economic and institutional change in the 150-year period between the onset of the Reformation and the Glorious Revolution. The Civil War and Glorious Revolution are the starkest manifestations of these changes, but they are far from the only important events or trends occurring in this period. The rise of English naval and commercial power, and a massive improvement in English inventiveness also preceded the Glorious Revolution. Was it a coincidence that these events occurred in England at this point in time?

We argue that these events are explainable within one consistent analytical framework. Most of the literature focuses on the 17th century as setting the stage for the modern economy in England. We do not claim that these prevailing explanations – which focus on either the wealth of new merchants or the “tyranny” of the Stuarts – were unimportant. Instead of focusing on what each of these explanation misses, we search for their common origin and complementary relationships. Our argument pushes this argument back a century, suggesting that it was the Reformation of the 1530s which set the stage for the crucial 17th-century events. Our framework centers on the relationship between the Crown and its legitimizing agencies, and it provides a unifying framework which accounts for all of the observed institutional, economic,

Table 14: Religious Affiliations of the Stuarts

Monarch	Raised as	Adopted	Change religion
James I	Presbyterian		No
Charles I	Presbyterian	Arminian	Yes
Charles II	Presbyterian	Catholic	Allegedly, confirmed after death
James II	Protestant	Catholic	Yes

political, and religious facts. Instead of treating each of these facts as separate entities requiring separate explanations, our model provides a structure for understanding the coevolution of economic, political, and religious institutions. Our analysis focuses on legitimacy not because it is the only possible explanation for each of the events in question, but because it provides an explanation that accounts for all of the economic, political, and religious changes that were important to the development of the pre-Industrial British economy.

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A Appendix

A.1 Proof of Proposition 1

We focus on cooperative equilibrium actions which are the same in each period, so we drop subscripts. In a cooperative equilibrium, the Ruler receives a positive transfer in each period ($\rho^T > 0$), offers and implements policy $p^I = \frac{\varepsilon}{2}$ or $p^I = \varepsilon$, and the agency accepts the offer ($a = 1$). Hence, the Ruler's equilibrium lifetime utility from playing the equilibrium actions in each period is:

$$U_{eq}^R = \left(\frac{1}{1 - \delta^R} \right) f(\rho^R + \rho^T) (1 - p^I). \quad (\text{A.1})$$

If the Ruler cheats, he receives the transfer in the period he cheats and he implements his optimal policy ($p^I = 1$) in that period. Every period after that, he receives no transfer from the agency and chooses his optimal policy. Hence, the Ruler's equilibrium lifetime utility from cheating is:

$$U_c^R = f(\rho^R + \rho^T) + \left(\frac{\delta^R}{1 - \delta^R} \right) f(\rho^R). \quad (\text{A.2})$$

A cooperative equilibrium only exists when $U_{eq}^R \geq U_c^R$. Combining (A.1) and (A.2), this gives:

$$f(\rho^R + \rho^T) \geq \left(\frac{\delta^R}{\delta^R - p^I} \right) f(\rho^R). \quad (\text{A.3})$$

Since $\delta^R > \varepsilon$, the RHS of (A.3) is positive. It follows that there exists some $\underline{\rho}^T$, where $\underline{\rho}^T$ solves (A.3) at equality, where a cooperative equilibrium exists if and only if $\rho^T \geq \underline{\rho}^T$. Note that when $\rho^R \geq \hat{\rho}$, where $\hat{\rho}$ is defined by $f(\hat{\rho}) = \frac{\delta^R - p^I}{\delta^R}$, no $\underline{\rho}^T$ exists which solves (A.3) at equality, and thus no cooperative equilibrium exists.

In order for a cooperative equilibrium to exist, the agency must also be made better off by giving a transfer than by not giving one. Its equilibrium lifetime utility from giving transfer ρ^T and accepting the Ruler's offer is:

$$U_{eq}^A = \left(\frac{1}{1 - \delta^A} \right) [f(\rho^R + \rho^T) (\beta - \varepsilon + p^I) + (\rho^A - \rho^T)]. \quad (\text{A.4})$$

Meanwhile, the agency's equilibrium lifetime utility from refusing to accept the Ruler's offer is:

$$U_c^A = \left(\frac{1}{1 - \delta^A} \right) [f(\rho^R) (\beta - \varepsilon) + \rho^A]. \quad (\text{A.5})$$

A cooperative equilibrium only exists when $U_{eq}^A \geq U_c^A$. Combining (A.4) and (A.5), this gives:

$$f(\rho^R + \rho^T) (\beta - \varepsilon + p^I) - \rho^T \geq f(\rho^R) (\beta - \varepsilon). \quad (\text{A.6})$$

It follows that there exists some $\bar{\rho}^T$, where $\bar{\rho}^T$ solves (A.6) at equality, where a cooperative equilibrium exists if and only if $\rho^T \leq \bar{\rho}^T$. Therefore, a cooperative equilibrium exists if and only if $\underline{\rho}^T \leq \bar{\rho}^T$.

In order for Proposition 1 to hold, it must be true that there exists some ρ^* where $\underline{\rho}^T \leq \bar{\rho}^T$ when $\rho^R \leq \rho^*$ and $\underline{\rho}^T > \bar{\rho}^T$ when $\rho^R > \rho^*$. This is proven by the following logic. First, note that $\underline{\rho}^T \rightarrow 0$ when $\rho^R \rightarrow 0$. Moreover, $\bar{\rho}^T > 0$ when $\rho^R \rightarrow 0$ as long as f' is continuous (i.e., there must be some minimally positive

value of ρ^T where $f(\rho^T)(\beta - \varepsilon + p^I) - \rho^T > 0$. Therefore, $\underline{\rho}^T \leq \bar{\rho}^T$ and a cooperative equilibrium exists at $\rho^R \rightarrow 0$.

Since a cooperative equilibrium exists at $\rho^R \rightarrow 0$ but not at $\rho^R \geq \hat{\rho}$, all that remains to be shown is that there is some value $\rho^* \in (0, \hat{\rho})$ for which a cooperative equilibrium exists if and only if $\rho^R \leq \rho^*$. This is true if $\underline{\rho}^T$ and $\bar{\rho}^T$ cross only once as ρ^R increases. For values of $\rho^R < \hat{\rho}$, $\frac{\partial \rho^T}{\partial \rho^R}$ is determined by re-arranging (A.3) at equality and invoking the Implicit Function Theorem:

$$\frac{\partial \rho^T}{\partial \rho^R} = -1 + \left(\frac{\delta^R}{\delta^R - p^I} \right) \left(\frac{f'(\rho^R)}{f'(\rho^R + \rho^T)} \right) > 0. \quad (\text{A.7})$$

Likewise, $\frac{\partial \bar{\rho}^T}{\partial \rho^R}$ is determined by re-arranging (A.6) at equality and invoking the Implicit Function Theorem:³⁴

$$\frac{\partial \bar{\rho}^T}{\partial \rho^R} = -1 + \frac{1 - f'(\rho^R)(\beta - \varepsilon)}{1 - f'(\rho^R + \bar{\rho}^T)(\beta - \varepsilon + p^I)}. \quad (\text{A.8})$$

From (A.7) and (A.8), it is straight-forward to show that $\frac{\partial \rho^T}{\partial \rho^R} > \frac{\partial \bar{\rho}^T}{\partial \rho^R}$ if and only if:

$$\left(\frac{\delta^R - p^I}{\delta^R} \right) \left(1 - \frac{f'(\rho^R + \rho^T)}{f'(\rho^R)} \right) > (\delta^R - \beta + \varepsilon) f'(\rho^R + \rho^T) - 1. \quad (\text{A.9})$$

As long as f''' exists and is not too large, then there exists some $\tilde{\rho}$ where (A.9) holds if and only if $\rho^R > \tilde{\rho}$.³⁵ It follows that there is a single crossing of $\underline{\rho}^T$ and $\bar{\rho}^T$ as ρ^R increases, which can be seen in Figure A.1. To see this, note that $\bar{\rho}^T$ is greater than $\underline{\rho}^T$ at $\rho^R \rightarrow 0$. When $\rho^R \in (0, \tilde{\rho})$, $\bar{\rho}^T$ increases at a faster rate than $\underline{\rho}^T$, meaning that $\bar{\rho}^T > \underline{\rho}^T$ for $\rho^R \in (0, \tilde{\rho})$. But, when $\rho^R > \tilde{\rho}$, $\underline{\rho}^T$ increases at a faster rate than $\bar{\rho}^T$. And since we know that $\underline{\rho}^T > \bar{\rho}^T$ for some value of $\rho^R < \hat{\rho}$, it follows that there is a single crossing of $\underline{\rho}^T$ and $\bar{\rho}^T$ as ρ^R increases, thus proving the proposition. It clearly follows that ρ^* exists at the intersection of $\underline{\rho}^T$ and $\bar{\rho}^T$.

Since $\frac{\partial \rho^T}{\partial \delta^R} < 0$ while $\frac{\partial \bar{\rho}^T}{\partial \delta^R} = 0$, it follows that ρ^* is monotonically increasing in δ^R . Since there is no cooperative equilibrium if $\rho^A < \underline{\rho}^T$, ρ^* is weakly increasing in ρ^A (that is, when ρ^A is small it is binding; at some point it is large enough that it does not bind). Finally, it is straight-forward to show that $\frac{\partial \rho^T}{\partial \varepsilon} > 0$ and $\frac{\partial \underline{\rho}^T}{\partial \varepsilon} > \frac{\partial \bar{\rho}^T}{\partial \varepsilon}$ (at $\underline{\rho}^T = \bar{\rho}^T$) for both $p^I = \frac{\varepsilon}{2}$ and $p^I = \varepsilon$. It follows that ρ^* is monotonically decreasing in ε .

A.2 Proof of Proposition 2

FORTHCOMING.

A.3 Proof of Proposition 3

FORTHCOMING.

³⁴Note that the optimal value of $\bar{\rho}^T$ for the agency is where $f'(\rho^R + \bar{\rho}^T)(\beta - \varepsilon + p^I) = 1$. Therefore, the greatest value of $\bar{\rho}^T$ for which (A.6) holds at equality must be larger than this optimal value, meaning that $f'(\rho^R + \bar{\rho}^T)(\beta - \varepsilon + p^I) < 1$.

³⁵Formally, $\tilde{\rho}$ exists if f''' is such that, for all ρ^R and ρ^T : $\frac{f''(\rho^R)}{f'(\rho^R + \rho^T)} < \frac{f'(\rho^R)}{f'(\rho^R + \rho^T)} \left[1 + \frac{p^I}{\delta^R - p^I} (\delta^R - \beta + \varepsilon) f'(\rho^R) \right]$. This is clearly true if $f''' < 0$, and it is true if $f'''(x)$ is not too positive for all values of x .

Figure A.1: $\underline{\rho}^T$ and $\bar{\rho}^T$ in the $\rho^R \times \rho^T$ plane

