The Institutional Basis of Political Legitimacy: The Reformation and the Origin of the Modern Economy in England*

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Abstract

This paper opens the 'black box' of endogenous political legitimacy and asks what role, if any, did political legitimacy play in the process rendering England the first modern economy, a colonial Empire and an exemplary democracy? Legitimacy entails obedience based on the moral obligation to follow the authority, and public displays of support from *legitimizing agents* increase legitimacy. Although the political authority can potentially select its legitimizing agents, the more the legitimizing agent has the power to decline supporting the authority, the higher legitimacy its support entails. Historically, the break with Rome that Henry VIII instituted during the English Reformation reduced the legitimizing power of the Church and the Tudors monarchs increasingly relied on Parliament as a legitimizing agent. They thus increased the power of the Parliament and its secular components. The endogenous change in the balance of political power was the ultimate source of the multiple institutional and policy changes that are the hallmark of England's transformation.

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I. Introduction

A legitimate political authority is one whose subjects are intrinsically motivated to obey. In other words, an authority's legitimacy predicates on its subjects' internalized belief that it has the *right* to govern and they have a moral *obligation* to obey. Political legitimacy is valuable because it reduces the cost of governance, as contemporary and past political observers often noted. Yet, it received scant attention in economics due to the lack of a theory of endogenous political legitimacy. From 1950 to 2012, for example, the *New York Times* and the *Foreign Affairs* mentioned political legitimacy in more than 1,500 entries but it was the topic of only 24 papers in refereed economic journals. The large majority of the economic papers were published only recently.

The analysis presented below makes three contributions to the emerging literature on political legitimacy. First, it develops a conceptual and analytical framework to study *endogenous* political legitimacy thereby departing from the dominant Weberian framework in which legitimacy is exogenous.² Second, it demonstrates that the impact of political legitimacy goes beyond governance costs. Legitimacy affects the distribution of political power between the authority and its legitimizing agents and thus has a profound impact on institutions and policies.

The paper's third contribution – and its focus – is substantiating that the 16th century

English Reformation changed the institutional foundations of political legitimacy and that this change had a crucial impact on England's subsequent development. Specifically, the English Reformation fostered the legitimizing role of the Parliament and reduced the legitimizing role of

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¹ Based on the corresponding online archives and the Social Sciences Citations Index category economics, topic "political legitimacy" (accessed Aug 23, 2013).

² Max Weber claimed that political legitimacy is "the basis of every system of authority" (1964: 382). He 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-rationale (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).

the Church. The implied new balance of power between Parliament and the monarchy had direct and significant effect on the institutional development and economic policies that caused England to become the first modern economy and one of the first and most stable democracies.

The claim that legitimacy is central to institutional developments and policy changes in England departs from the social scientific literature on England's peculiarities. In this literature, wealth is the key to political power, implying that the 17th century conflicts in England were due to changes in and the fight over new sources of wealth. Particularly important in the outcome was Parliament gaining control over state finance, which enabled it to constrain the monarchy.³ The importance of this argument notwithstanding, it does not explain why the English monarchs did not use temporary financial windfall to create the institutions required to perpetuate their financial independence as their European counterparts did. Nor does the analysis explain why Parliament kept the monarchy or why much of the institutional changes in England were concerning religion.

Particularly puzzling from the wealth-equals-power perspective is that Henry VIII (r. 1509-1547) did not establish an absolute monarchy. He inherited a state treasury with the large sum of 1.8 million sterling (Sinclair, 1803-4, vol. 1, p. 170) and subsequently gained control over about 20 percent of England's landed property by confiscating it from the monasteries (ibid). Henry's average annual income was more than 14 percent of the GDP compared to a yearly average of 3.75 of all other monarchs from 1461 to 1702. Yet, Parliament supported the confiscation of the monasteries' property while Henry did not use this windfall to weaken

³ E.g., North and Weingast (1989), Acemoglu, Johnson, and Robinson (2005), and Acemoglu and Robinson (2012).

Parliament. In fact, Henry strengthened it by increasing the number of seats in the House of Commons by 15 percent, more than any previous monarch.⁴

Why did Parliament consent to this flow of wealth to Henry VIII while it conflicted over finance with later monarchs whose incomes (as share of the GDP) were much lower? Why did Henry not use this windfall to secure revenues that would end Parliament's power of the purse? Why did other European monarchs use such opportunities to permanently reduce the power of their representative assemblies? Why, in contrast, did Henry increase the size and hence the power of the House of Commons? Similarly puzzling is the observation that Parliament conflicted and even fought monarchs yet kept the monarchy. Opportunities to eliminate the monarchy presented themselves, for example, following the death of Elizabeth I, the Civil War and the Glorious Revolution. At the least, the Parliament could have imitated the model provided by the Dutch Republic and instituted a king-like leader with only military role.⁵

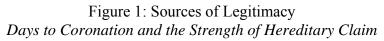
The endogenous-legitimacy perspective provides intuitive and coherent answers to these questions by recognizing that legitimacy has two sources. The first is a *legitimacy norm or legitimizing principle* that specifies the set of potentially legitimate authorities and their legitimacy. In the case of England, the legitimacy norms of hereditary monarchy implied that a monarch as to be of royal blood and first-born sons were the legitimate heirs. The second source of legitimacy, however, is the public display of support exhibited by *legitimizing agents* that, in England, included the high nobility and the clergy who displayed support during coronation ceremonies.⁶

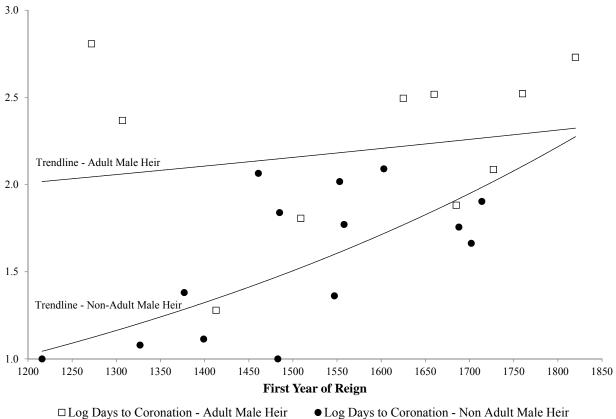
⁴ The large majority of the new boroughs were not rotten according to the 1832 Reform Act suggesting that the expansion of the Parliament under Henry VIII actually strengthened it.

⁵ For simplicity, we consider the Parliament, when possible, as a unitary actor while in reality it was composed of various and varying factions.

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

Analyzing the number of days that passed from a monarch's accession to the throne and the coronation reveals the importance of norm-based and legitimization-based legitimacy and their inter-relations. Figure 1 presents the data for all monarchs 1216 to 1820. It differentiates between monarchs who had a strong claim to the throne based on the legitimacy norm that bestowed legitimacy on the first son of the previous monarch. Exactly half of the 20 monarchs who came to the throne as adults (of 17 years or more) during this period had such strong normbased legitimacy. The data reveals that it took more days from accession to coronation for new monarchs who had strong norm-based legitimate claim to the throne. The average number of days from succession to coronation was 267 days for monarchs with strong legitimate claims and 68 days for those without (including non-adult heirs does not qualitatively alter the result). These two sources for legitimacy seem to be neither mutually exclusive nor perfectly additive as is evident from the observation that new monarch with weak norm-based legitimacy held coronations sooner. As we approach the 19th century, the difference between the two groups declined. This decline, as discussed below, corresponds to increasing reliance on Parliamentary Acts legitimizing the next monarch.





• Log Days to Coronation - Non Adult Male Heir

Sources: Various

Note: Henry VI (1422) and Edward V (1483) not included

Not every political agent can legitimize. Legitimizing agents alter the beliefs held by the population regarding an authority's legitimacy and this requires that the public perceive them as better informed regarding the authority's legitimacy. The details of the legitimacy norms also determine the set of potential legitimizing agents. While high nobility and clergy, for example, are legitimizing agents consistent with hereditary monarchy but not a democracy, impartial election commissions are consistent with the legitimacy-norm of elective democracy.

In addition, a legitimizing agent has to have (or perceived as having) sufficient independent power so that he can decline legitimizing the authority. The premise is that an authority cannot legitimize itself. Hence, only agents with independent power can legitimize the authority, as dependency implies a signal extraction problem. An agent with independent power can signal accepting his moral obligation to obey the authority and thereby confirm its legitimacy. The more power an agent has to refuse legitimizing, the more legitimacy it can bestow on the authority.

The political power of a legitimizing agent further increases if the authority has requested him to legitimize it. Generally, legitimacy norms leave the authority some discretion in choosing among legitimizing agents. When an authority chooses a particular legitimizing agent from that set, however, it acknowledges that his opinion *should* matter, thereby increasing his legitimizing power. To illustrate, the legitimacy norm of majority vote increases the importance of election in shaping beliefs regarding legitimacy. In the international arena, the United States regularly approaches the United Nations to approve actions it can unilaterally take. This fosters the legitimation role of the UN and renders it a more important legitimizing agent in the international arena.

In short, the legitimacy norm (principle) determines the set of potentially acceptable legitimate authorities, their initial legitimacy, and the set of potential legitimizing agents. A legitimizing agent has to have independent political power to render legitimation credible.⁷ The more power the agent has, the more legitimizing it can provide.

The economic and political implications of political legitimacy thus go well beyond its direct impact on the cost of governing. It influences the distribution of political power and thus institutions and policies. First, the selection of legitimizing agents influences the distribution of political power ex-post, as noted above. In addition, an authority might ex-post gain from ex-ante empowering a potential legitimizing agent. The gains from additional legitimacy might be higher

⁷ For sources of independent political power, see Greif (2005).

than the cost of less power. To be effective, the new distribution of power should be self-enforcing, implying that ex-ante institutional and organizational changes are required to render the change in power self-enforcing (e.g., Greif 1998, 2006, 2008).

The second way that endogenous political legitimacy affects institutions and policies is through its impact on political bargaining. The authority and its legitimizing agents gain from cooperation as legitimacy reduces governance costs and enables extracting more resources from the population at large. The distribution of this surplus among them, however, is a source of contention leading to conflict and bargaining over wealth, institutions, and policies. It thus matter who are the legitimizing agents, what is the source of their power, and what are their interests. Finally, the strategic dynamic interactions between the legitimizing agents and the authority impact institutions and policies as each side seeks to retain the benefit of the legitimacy the other side entails while curtailing its actual power.

The conjecture regarding the importance of endogenous political legitimacy gains support from, and provides insights regarding, England's historical experience. Consider the legitimacy-related implications of Henry VIII creating the Anglican Church. The English monarch thus could no longer rely on the Catholic Church to legitimize their authority. The Anglican Church was a poor substitute because the English monarchs were its supreme heads and thus this Church did not have the independent power required to be an effective legitimizing agent.

Henry's dynasty, the Tudors, had weak norm-based legitimacy. Their claim to the throne was through the maternal branch of the royal dynasty and the first Tudor, Henry VII (1485-1509), gained the crown on the battlefield. The Protestant Tudors monarchs thus turned to the Parliament for legitimacy. This required strengthening the Parliament and, in fact, at the death of the last Tudor monarch, Elizabeth I in 1603, Parliament had 55 percent seats more than when the

first Tudor, Henry VII, came to power in 1485. Moreover, the Spiritual Lords lost their majority in the House of Lord. The Spiritual lords never regained the majority they has previously had.

The coronation ceremonies reflect the transition to secular legitimization. Two Bishops led Henry VIII during his coronation. However, one Bishop and one secular lord led his heir, Edward VI, while two secular lords led his daughter, Elizabeth I, the last Tudor monarch. The increasing legitimizing power of the Parliament is evident in the timing of the Parliamentarian sessions. The number of days between accession and the first session of the Parliament steadily declined after Henry VIII. In fact, the Parliament began issuing Acts confirming the legitimacy of new monarchs and by the 17th century, the Acts generally were issued prior to the monarch's accession. Parliament Acts legitimized Mary I, Elizabeth I, James I, Charles II, William of Orange, and Mary II. The only two kings who were not legitimized by an Act of Parliament, Charles I and James II, both lost their throne due to the Parliamentarian opposition.

In short, the Reformation altered the institutional basis of political legitimacy in favor of Parliament. The subsequent conflicts between the Parliament and the Crown during the 17th century were about legitimization. On the one hand, the increasing power of the Parliament and its increasing legitimizing role, motivated monarchs to try to weaken it. The Crown sought financial independence and to re-establish the legitimizing role of the Catholic Church. On the other hand, Parliament sought more control over finance, more legislative rights, and to permanently eliminate the legitimizing role of the Catholic Church. More generally, the idea that legitimacy was central to England's political development gains support because it provides a

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⁸ "Edward was the first king to issue a proclamation declaring that he had come to the throne 'fully invested and established in the crown imperial of the realm'" (Strong, (2005), pp. 199-200).

⁹ Legitimacy of the Queen, etc. Act 1553 (1 Mar. st.2 c.1), Queen's Title to the Crown Act 1558 (1 Eliz. I c.3), Succession to the Crown Act 1603 (1 Jac. I c.1), Parliament affirmed on May 8 that Charles II was "the most potent and undoubted King" since the moment of his father's execution, Oaths of Allegiance and Supremacy Act 1688 (1 Will. and Mar. c.8), Coronation Oath Act 1688 (1 Will. and Mar. c.6).

consistent explanation for institutional developments and policy changes in post-Reformation England. It provides consistent answers to the above questions and puzzles as well as others such as the increasing reliance on the rule of law.

More generally, this paper established that neither constraints on the monarch nor lower governance cost per-se were the main factor that set England apart. England differed, due to luck more than design, in the details of a general mechanism generating endogenous legitimacy, the distribution of power it entailed, and the resulting institutions and policies.

II. A Bargaining Model of Political Legitimacy

Overview

The model focuses on various aspects of the bargain that a King makes with a parliament. We model the bargain as the King offering to provide a public good in return for tax revenue and legitimacy. We unpack the King's "legitimacy" into three components: an exogenous component based on personal characteristics (e.g., heredity), an exogenous component based on legitimacy received from other agents (e.g., religious authorities), and an endogenous component provided by the parliament. The efficacy of the latter two sources of legitimacy is a function of their power that is independent of the King. So, a state-run church has very little power to legitimize while an independent church has significant legitimizing power. Likewise, a legislature that is viewed as a 'rubber stamp' for the King's prerogative has little legitimizing power, while an independent legislature has significant power to legitimize.

The King and the parliament derive utility from the provision of the public good, although their optimal amounts differ. Their incentives are thus partially aligned with respect to the provision of the public good. The King desires legitimacy for its own sake (i.e., it helps keep

him in power), but it also increases his marginal utility from providing the public good. The latter point underscores the idea that the cost to the King of providing the public good is a function of his legitimacy. For example, a highly-legitimate King can more efficiently mobilize national defense than a weakly-legitimized King (or a group of citizens who do not have legitimacy to serve as ruler). In return for providing the public good, the King asks parliament for revenue. We model the bargain as a trade of a public good for revenue because this was the most common type of bargain between parliaments and Kings in medieval and early modern Europe.

If parliament accepts the bargain, it gives the king revenue and provides him with legitimacy, and in return it receives the specified amount of the public good. If it rejects the offer, it does not give him revenue and does not provide him with legitimacy. The King still chooses to provide some level of the public good, but he does so less effectively (since he is less legitimate) and with fewer funds. The King has an outside source of funds (e.g., customs revenue) that is not dependent on the outcome of the bargain. He uses these funds to provide the public good whether or not his offer is accepted.

The model sheds light on how legitimizing agents affect policy making in general and how the Reformation altered this dynamic in particular. Throughout the exposition of the model, we have in mind its application to how the Reformation reduced the English king's ability to derive legitimacy from other (non-Parliament) sources. The model guides us through how such a change affects policy, and how policy changes are affected by other parameters in the model.

Setup

Consider a one period bargaining game played by a King, K, and a parliament, P^{10} K and P^{10} bargain over an amount $G \in \Re^+$ of a public good and tax revenue $t_P \in \Re^+$, which is used to purchase G. The King has an independent source of revenue, t_K , which is also used to purchase the public good. In other words, t_P is interpreted as a direct tax and t_K is interpreted as an indirect tax. If a bargain is struck, P provides legitimacy P = 1 and gives the King tax revenue P in return for P incurs fixed a cost P of providing legitimacy. This cost is interpreted as the loss of (independent) power that it cedes to the King. If P rejects the offer – the disagreement outcome – it provides legitimacy P and gives the King no tax revenue. In this case, the king provides P on which is purchased with the King's independent source of revenue, P of revenue, P of repeated using the symmetric Nash bargaining solution (Nash 1953). This solution approaches the Rubinstein (1982) repeated-offer game solution (Binmore et al. 1986), hence our insights are not an artifact of the one-period nature of the game.

The King benefits from the provision of the public good, but he also must pay for it. His cost of providing the public good is a function of his legitimacy, L. At higher levels of L, it is less costly for the King to provide the public good. The King also derives utility from legitimacy independent of its role in augmenting the cost of G, since legitimacy increases the probability

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¹⁰ A more general specification would denote parliament as any type of legitimizing agent (e.g., religious authority, media, warrior elite). We call this player "parliament" to focus attention to the historical game that we analyze in the rest of this paper between the English king and Parliament.

Alternatively, this cost can be modeled as an increase in utility if P decides to reject the offer. This is interpreted as the expected gain from revolting. Either case provides the exact same result, with the parameter simply entering in P's disagreement payoff.

¹² The game generalizes to a non-symmetric Nash bargaining equilibrium, but introducing asymmetry adds no interesting insights, so we focus on the symmetric case.

that the King and his dynasty will stay in power.¹³ The King's utility function can be written in a general, non-seperable form:

(1)
$$U^{K} = u(L,G)$$
,

where $u_1 > 0$, $u_{11} < 0$, $u_2 > 0$ if $G < G^K$, $u_2 < 0$ if $G < G^K$, $u_{22} < 0$, and $u_{12} > 0$.¹⁴ In other words, $G^K \in \mathfrak{R}^+$ is the optimal amount of public good provision from K's perspective, and L and G are complementary inputs into K's utility. Assume that all functions in the model are smooth and twice differentiable.

The King only purchases the public good. The price of G is a numeraire equal to 1, so K's expense is G. K derives revenue from two sources: his independent revenue stream, t_K , and the revenue he receives from the bargain, t_P . Assume that $t_K < G^K$, meaning that K cannot fund his desired level of the public good without some revenue from P. Denoting 1_P as an indicator equaling one if a bargain is struck, the King's budget constraint is written:

(2)
$$G \le t_K + 1_P t_P$$
.

Parliament also benefits from the provision of the public good. Denote w(G) as the value that parliament receives from level G of the public good, where w' > 0 and w'' < 0. Since P pays the direct tax, t_P , if a bargain is struck, P's utility is written:

(3)
$$U^P = w(G) - 1_P(t_P + c_P)$$
.

Finally, we unpack the legitimacy function, L, into three components. The first component is provided by P. It chooses whether to legitimize K (p = 1) or not legitimize K (p = 0). The strength of its legitimization on K's overall level of legitimacy is a function of P's independence from K, denoted $\varphi \in \Re^+$. The second component is the exogenous legitimacy

¹³ This is only a one-period game, since it is meant to capture the interaction between K and P. In reality, of course, a king also cares about the future.

¹⁴ If we assume that utility is separable, we can write $U^K = v(L) + w(G) - c(G,L)$, where v() denotes the value of legitimacy, w() denotes the value of the public good, and c() denotes the cost of the public good. This specification has the same properties as u(L,G) if v>0, v>0, w>0, w>0, v>0, v>0,

provided by other agents. Since it fits our historical analysis, we call this religious legitimization for the rest of this section, although this parameter can be interpreted as legitimacy derived from any agent besides the one playing the game. This component is a function of the agent's degree of independence from K, denoted $\lambda \in \Re^+$. The third component, $\pi \in \Re^+$, is the exogenous personal characteristics of the King. These characteristics include heredity and charisma – what Weber (1922) called "charismatic" and "traditional" grounds of authority. We formally write the legitimacy function as $L(p\phi,\lambda,\pi)$, where $L_j>0$, $L_{jj}<0$, and $L_{jk}<0$ for all $j\in\{1,2,3\}$ and $k\neq j$. The last assumption, $L_{jk}<0$, merely indicates that the inputs are substitutes; if the King is highly legitimized by other sources, the legitimacy provided by P is less valuable than when he is weakly legitimized.

Equilibria and Comparative Statics

Equilibria are solved using the symmetric Nash bargaining solution. First, consider the disagreement utilities for K and P. If no bargain is struck, K receives no legitimacy from P (i.e., p=0) and he spends up to t_K on public good expenditure G_D . It is straight-forward to see that K chooses $G_D=t_K$, since we assume that $G^K>t_K$ (K would choose $G_D=G^K$ if $G^K\leq t_K$). K's equilibrium disagreement utility is written $u(L(0,\lambda,\pi),t_K)$ and P's disagreement utility is written $w(t_K)$.

The two-player symmetric Nash bargaining solution maximizes the product of the players' differences in utility under a successful bargain and their disagreement utility, subject to the bargain utility being greater than the disagreement utility. In the present case, K's budget constraint must hold as well. Hence, the equilibrium levels of G and t_P are those that solve the following system of equations:

$$(4) \ max_{G,t_P} \ [w(G)-t_P-c_P-w(t_K)] \cdot [u(L(\phi,\lambda,\pi),G)-u(L(0,\lambda,\pi),t_K)]$$
 subject to
$$w(G)-t_P-c_P \geq w(t_K),$$

 $u(L(\varphi,\lambda,\pi),G) \ge u(L(0,\lambda,\pi),t_K)$, and

$$G \leq t_K + t_P$$
.

It is clear that the budget constraint binds in equilibrium, so $G = t_K + t_P$. Hence, (4) can be rewritten:

$$(5) \ \text{max}_G \ [w(G)-G+t_K-c_P-w(t_K)] \cdot [u(L(\phi,\lambda,\pi),G)-u(L(0,\lambda,\pi),t_K)]$$

$$\text{subject to } w(G)-G+t_K-c_P \geq w(t_K) \ \text{and} \ u(L(\phi,\lambda,\pi),G) \geq u(L(0,\lambda,\pi),t_K).$$

Taking the first-order condition of (5) with respect to G gives the following equilibrium condition (after some algebraic re-arranging), which implicitly solves for the equilibrium level G^* :

(6)
$$\frac{w'(G)-1}{w(G)-G+t_K-c_P-w(t_K)} = \frac{-u_2(L(\varphi,\lambda,\pi),G)}{u(L(\varphi,\lambda,\pi),G)-u(L(\varphi,\lambda,\pi),t_K)}.$$

We focus the rest of the analysis on two parameters of concern for our historical analysis: t_K (indirect taxes) and λ (religious legitimacy). Equation (6) suggests that there are four classes of equilibria, which we describe below informally before formally solving comparative statics results. These classes of equilibria are:

1) <u>High t_K , high λ </u>: K is highly legitimized by the religious establishment and has access to significant indirect taxes. In this case, K has significant bargaining power. The equilibrium public good provision G^* is so close to G^K that P either i) rejects the offer rather than pay the fixed cost associated with legitimizing, or ii) accepts the offer as long as the tax level t_P is low. In either case, the level of G is close to K's optimal level G^K , and the direct tax t_P is low (or zero, if no bargain is struck).

- 2) <u>High t_K , low λ </u>: K is weakly legitimized by the religious establishment but he has access to significant indirect taxes. In this case, P's bargaining power comes from its ability to legitimize K. The equilibrium public good provision G^* is is closer to P's optimal level of G than in case 1, because P is in a stronger bargaining position. However, G is further away from P's optimal level than in case 4. Meanwhile, the direct tax level (t_P) is low.
- 3) Low t_K , high λ : K is highly legitimized by the religious establishment but he has little access to indirect taxes. In this case, P's bargaining power comes from its ability to provide K with revenue. The equilibrium public good provision G^* is closer to P's optimal level of G than in case 1, because P is in a stronger bargaining position. However, it is further away from P's optimal level than in case 4. Meanwhile, the direct tax level (t_P) is high.
- 4) Low t_K , low λ : K is weakly legitimized by the religious establishment and he has little access to indirect taxes. In this case, P has significant bargaining power, as it is able to both legitimize K as well as provide K with revenue. The equilibrium public good provision G^* is closer to P's optimal level than in cases 1, 2, or 3, because P is in the strongest bargaining position of all of the cases. Meanwhile, the direct tax level (t_P) is high.

These four equilibrium classes are summarized in Table 1, and historical examples of each of the equilibrium classes are provided in Table 2. These are not meant to be precise historical statements; we frame the equilibrium outcomes in such a manner merely to help conceptualize the different states of the world in our historical analysis.

Table 1: Summary, Four Equilibrium Classes

	High λ	Low \(\lambda \)		
High t _K	G^* close to K's optimal level (G^K) Low direct taxes (t_P)	G* in between K and P's optimal level Low direct taxes (t _P)		
Low t _K	G* in between K and P's optimal level High direct taxes (t _P)	G* close to P's optimal level High direct taxes (t _P)		

Table 2: Historical Examples of Four Equilibrium Classes

	High λ	Low \(\lambda\)			
High t _K	16th-17th century France and Spain 15th-17th century Ottoman Empire	England under James I, Charles I, James II England post-Glorious Revolution			
Low t _K	15th-17th century Holy Roman Empire	England under post-Reformation Tudors			

The four equilibrium classes follow from the comparative statics laid out in Proposition 1. From Table 1, it is seen that the equilibrium level G^* approaches P's optimal level as both t_K and λ decrease. The intuition underlying this result is straight-forward: P's bargaining position improves as t_K and λ decrease. A decrease in t_K means that K is more dependent on P for revenue, while a decrease in λ means that K is more dependent on P for legitimacy; in both cases, the bargaining position of P is improved. The following proposition summarizes these comparative statics. Denote P's optimal amount of G as G^P . The proofs of all propositions are in the Appendix.

Proposition 1: The magnitude of the difference between the equilibrium level of the public good provided, G^* , and the optimal amount for P, G^P , is decreasing in t_K and λ .

We focus on the level of the public good provided relative to the optimal levels for K and P rather than the absolute level of the public good provided because the shapes of u() and w() differ depending on the type of public good in question. For example, P may desire significantly more poor relief than K because it directly affects P's wealth but barely affects K (i.e., w' is large while u₂ is small). On the other hand, P and K may be much more aligned in their views on military spending. The model is robust enough to provide different predictions in each of these cases.

Finally, comparative statics are derived with respect to K's personal characteristics, π . Since π enters the legitimacy function in the same manner as λ , the comparative static relating public good provision to π is the same.

Proposition 2: The difference between the equilibrium level of the public good provided, G^* , and the optimal amount for P, G^P , is decreasing in π .

Extension: Religious Legitimacy as a Choice Variable

In this section, we extend the model to address the possibility that the King can take actions outside of the game previously described in order to bolster his legitimacy. Consider an extension to the model in which a stage is added prior to the game where K chooses to either be legitimized by the old religious authority (denoted O, who provides λ) or be legitimized by a new religious authority (denoted N, who provides λ^*). Assume that N has a greater source of power independent of K, so $\lambda^* > \lambda$. Also assume that K incurs no cost for choosing N.¹⁵ Although we restrict the terminology to religious authorities in this section, the insights clearly apply to K

¹⁵ Introducing a cost to this choice does not alter the insights of this extension.

being able to choose *any* type of alternative legitimizing agent who is more effective at providing legitimacy.

Why would K ever choose to not gain more legitimacy (λ^*) at zero cost? The answer is simple: over a large part of the parameter set, an increased level of religious legitimacy makes a mutually beneficial deal with P impossible, meaning that K loses out on receiving legitimacy ϕ from P. If the difference between λ^* and λ does not more than make up for this loss in ϕ , it is possible that K will forego the additional religious legitimacy in order to make a deal with P.

There are two situations in which K clearly will choose N (and receive legitimacy $L(0,\lambda^*,\pi)$). The equilibrium actions in these situations are obvious and uninteresting, and we will not focus on them. The first case is when P does not agree to the bargain under O. In this case, P clearly also will not agree to the bargain under N, so K might as well choose N and receive greater legitimacy without altering the level of public good provision. For the remainder of this section, assume that this is not that case and that a bargain can be reached under O. The second uninteresting case is when P agrees to the bargain even if K chooses the N. In this case, K might as well choose N, since it increases its bargaining position without losing its ability to bargain. For the rest of the analysis, assume that this is not the case and that λ^* is large enough that there is no possible bargain that P will agree to if K chooses N.

The interesting case is when a bargain is struck under O but not under N. Denoting G^E as the equilibrium level of the public good agreed upon under O, K's decision in the first stage boils down to comparing $u(L(0,\lambda^*,\pi),t_K)$ and $u(L(\phi,\lambda,\pi),G^E)$. It is straight-forward to see that K prefers choosing N (i.e., $u(L(0,\lambda^*,\pi),t_K) > u(L(\phi,\lambda,\pi),G^E)$) when ϕ is an important component of K's legitimacy under O. In this case, K is in a weak bargaining position with P under O – it needs the legitimacy P provides – so G is further away from K's optima (G^K). Choosing N partially

alleviates this problem; even if the overall level of legitimacy is lower, this can be more than made up for by a level of G that is closer to G^K .

 ϕ is an important component of K's legitimacy under O – which encourages K to choose N - when λ is small. In this situation, K is in a weak bargaining position and ϕ becomes all the more valuable to K. Moreover, at sufficiently low levels of λ , it is also true that K is increasingly likely to choose N as t_K increases. At higher levels of t_K , K receives a level of the public good that is closer to its optimal amount, G^K , under N. While this is also true under O, the change in G is not as dramatic at low levels of λ , since K is still in a weak bargaining position. This logic is summarized in Proposition 3.

Proposition 3: In the part of the parameter space where P does not legitimize K if K chooses N, the set of parameters in which K chooses N anyways is decreasing in λ and it is increasing in t_K when λ is sufficiently small.

Summary

We briefly recap the highlights of the model, framing them in a manner that guides us through the rest of the paper. The model provides general insights, but for the remainder of the paper we apply these insights to the political equilibrium in post-Reformation England. The two primary highlights of the model are:

• The amount of the public good provided is closer to parliament's optimal amount as the indirect tax level, legitimacy available from other sources (e.g., religious authorities) or inherent characteristics decreases (Propositions 1 and 2)

• If the king has an alternative form of legitimacy available that is able to provide greater legitimacy (e.g., a different religious authority), he will choose this alternative – even when it means losing legitimacy from parliament – when his old form of (religious) legitimacy is weak and indirect taxes are high.

III. Post-Reformation Shift in the Institutional Basis of Legitimacy in England One of the key conjectures of this paper is that the Reformation altered the institutional basis of political legitimacy in England. In particular, the manner in which the Reformation was brought to England – and the resulting reduction in the wealth and political power of the Catholic Church in England – meant that the Crown lost its ability to acquire religious legitimization and subsequently turned to Parliament to bolster its claim to rule.

Henry VIII's Reformation was the most destabilizing blow to England's Catholic Church since the murder of Thomas à Becket in 1170. Within the span of just a few years, Henry VIII was able to push through Parliament numerous acts which granted the Crown powers that only the Church had previously been able to grant. The 1534 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.

Even though Henry VIII was able to subsequently place the Crown at the head of the new Anglican Church, he was able to derive significantly less legitimacy from the new church than

the Crown had received from the Catholic Church prior to the Reformation. ¹⁶ A legitimizing agent is only able to provide legitimacy to the extent that it has power *independent of the ruler* (λ). By placing the Anglican Church under the monarchy, Henry undermined its independence. An independent Church can augment the moral obligation of subjects to follow the king (Greif 2010; Greif and Tadelis 2010) – the Anglican Church could not. If legitimizing agents are not independent of the object of legitimization, they add nothing to the *intrinsic* beliefs of subjects regarding the king's right to rule. ¹⁷ When Henry VIII became the head of the Church of England, he eliminated the possibility that religious authorities could affect beliefs in such a manner. In short, Henry could not gain additional legitimacy from confirming himself.

The act of removing the Church and confiscating its wealth was destabilizing to Henry VIII's legitimacy, so it could only have been accomplished with help from an alternative source of legitimacy. Parliament was in an excellent position to serve as such an alternative to the Church. For one, it had numerous means of power independent of the Crown: the Lords could only be judged by the House of Lords (and not the King's court), while the Commons raised resources for war and had local legitimacy deriving from their election. Moreover, *following the law* was an important means of legitimizing actions. The law, being independent of any one king, provided an additional source of legitimacy to Henry's questionably legal actions. ¹⁸ Not only

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¹⁶ If 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.

¹⁷ However, bringing the religious establishment under the power of the Church may affect the *extrinsic* motivations of subjects to support the Crown, as it increases the social pressure of conforming to perceived norms. For more on this topic in this context, see Greif and Tadelis (2010) and Rubin (2013).

¹⁸ Wood (1982) argues that Parliamentary consent for actions of questionable legitimacy dates back to the 14th century removal of Edward II by his wife Isabella.

could Parliament legitimize Henry VIII as King, they could also legitimize his actions by cloaking them in a shroud of legality.

In this section, we document the increase in the importance of Parliamentary legitimacy under Henry VIII and show that it persisted throughout the Tudor period. Later, we show that this change in the institutional basis of legitimacy was an important feature of the political events of the tumultuous 17th century.

Post-Reformation Shift in Legitimacy

One of the puzzles noted in the introduction is, "Why did Henry VIII not become a tyrant 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? The simple answer to these questions, which is suggested by the intuition espoused by the model, is that Henry VIII could not rule without Parliament. Following the Reformation and the resulting loss of religious legitimacy, Henry had little alternative basis for political legitimacy (other than heredity). Hence, it was not possible for Henry to threaten Parliament because he *needed them to rule*. As a result, Parliament's role in legitimizing the Crown expanded dramatically. This change in the basis of political legitimacy was manifested in many ways.

First, the size of the House of Commons increased substantially after the Reformation. In order to push through the Reformation, Henry VIII increased the size of the Commons with supporters of his agenda. Henry VIII added almost as many new members to the Commons as had been added in the two centuries prior to his reign (see Figure 2). This figure 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 actual places in need of representation and were not merely foils meant to increase the size of Henry's support. The introduction of new seats (besides the rotten boroughs) gave increased representation to larger swaths of the English elite, thus strengthening their hand vis-à-vis the Crown. The upshot was that the Commons were given a greater role in national policy-making. This supports the idea that not only could Henry not use his new-found wealth to threaten Parliament, he actually needed to *strengthen* Parliament in order to rule without religious legitimacy.

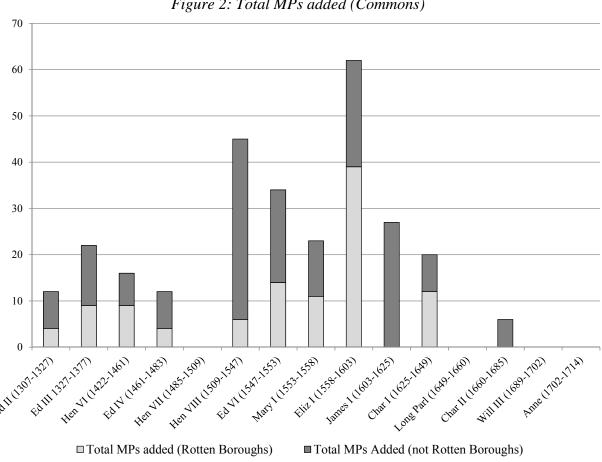


Figure 2: Total MPs added (Commons)

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

*Note: Rotten boroughs defined as those that lost MPs in the 1832 Reform Act

While the raw number of seats added to the Commons is reflective of their power, the composition of these new seats indicates how this power was allocated. In particular, the trend beginning with Henry VIII was to expand the size of MPs from boroughs (both rotten and not) at the expense of those from counties (Figure 3). The increase in the number of MPs from non-rotten boroughs was a particularly important development, as the interests of these boroughs were quite different from those of the other MPs. The borough MPs were much more likely to have interests in overseas trade, and the policies emanating from the Tudor and Stuart Parliaments are reflective of this fact.

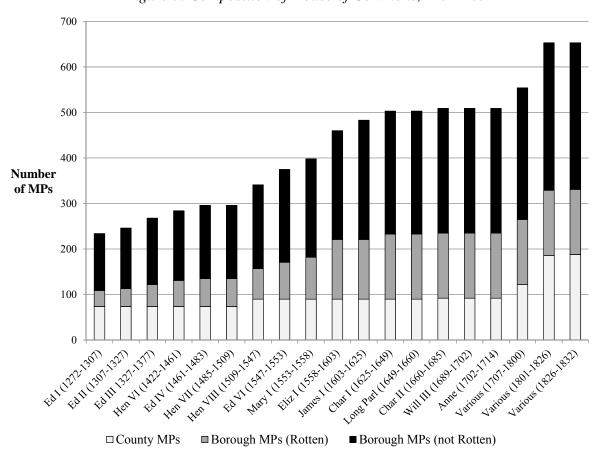


Figure 3: Composition of House of Commons, 1272-1832

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

*Note: Rotten boroughs defined as those that lost MPs in the 1832 Reform Act

The House of Lords, like the House of Commons, was also affected by the institutional changes following the Reformation. Prior to the Reformation, the House of Lords served as an independent legitimizing agent because they i) were not subject to the King's justice (thus providing a source of power independent of the Crown), and ii) many leading Church figures served as Lords (and were subject to Rome, not the Crown). In the pre-Reformation equilibrium, Catholic Lords Spiritual in the House of Lords were very strong legitimizing agents, as they had two means of power outside the control of the king. After the Reformation, of course, the Churchmen lost one of those sources of legitimization.

Since the Model Parliament of 1265, the Spiritual Lords had a majority in the House of Lords (Pike 1894). ¹⁹ The Model Parliament of 1265, for example, had 50 Temporal lords and 90 Spiritual lords. The latter included the Archbishops and Bishops (20) as well as Abbots (Pike 1894, p. 67). The Spiritual Lords retained their majority to the eve of the Reformation, and as late as the reign of Henry VII (1485-1509) there were 49 Spiritual Lords compared to 29 Temporal ones (Lehmberg, 1970, p. 44). However, the Spiritual Lords lost their majority position under Henry VIII prior to the Reformation. In 1529, for example, there were 51 Temporal lords and 49 Spiritual ones while in 1534 there were 55 and 50 respectively (Lehmberg 1970, p. 37). Among the means used by Henry to render the Spiritual a minority was the creation of new temporal peers. Specifically, he created 57 new peers, more than any other Tudor monarch. ²⁰

The manner in which Henry VIII brought the Reformation to England further reduced the number of Spiritual lords. Specifically, the Spiritual lords were divided to two groups, the

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¹⁹ The seating arrangements reveal the importance of the Spiritual Lords in the House of Lords: "The place of the Lords Spiritual in Parliament is described in the earliest copies [14th century], but not the place of the Lords Temporal. 'The King shall sit in the middle of the Greater Bench,' on his right the Archbishop of Canterbury, on his left the Archbishop of York, and behind them the Bishops, Abbots, and Priors" (Pike, 1894, p. 112).

smaller group of archbishops, bishops, and custodians (21 from 1529 to 1536) and the larger group of abbots and priors (29). Although the latter were Spiritual lords, their position was linked to the property they held, since they were summoned as barons (Pike, 1894, p. 156). Once the priors lost their property due to the dissolution of the monasteries, they also lost their claim to being Spiritual lords.

The changing composition of the House of Lords accords well with the intuition spelled out in the model. First, consider the pre-Reformation equilibrium, where the Church played a key role in legitimizing the monarch (λ was large). Under these conditions, it was in the monarch's interest to have the Lords be composed of as many Churchmen as possible. The Lords Spiritual were an extremely strong source of legitimacy, having numerous sources of power independent of the Crown. This meant that there was no tension between the King and Church with the King being independently wealthy (i.e., large t_K) and strongly legitimized (i.e., large λ). The wealthier the King was, the more valuable was the Church's blessing, since it allowed him to avoid calling Parliament for funds.

The post-Reformation equilibrium, where the Church was unable to legitimize the Crown (λ was small), was based on a different incentive structure for the King and the Lords. Anglican Lords Spiritual were had little capacity to legitimize the Crown, since the Anglican Church was not independent of the Crown. The upshot is that there was a change in the composition in the House of Lords away from the Lords Spiritual towards Lords Temporal following the Reformation. Beginning with Henry VIII, the Lords Spiritual progressively lost more and more influence in the House of Lords as Henry VIII and future monarchs created new Temporal lordships at the expense of Spiritual lordships (see Figure 4).

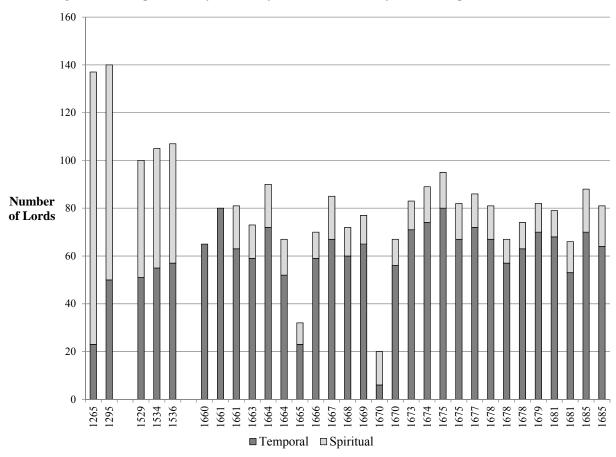


Figure 4: Composition of House of Lords, 13th c, Reformation, post-Restoration

Sources: Pike (1894), Lehmberg (1970), Cook and Wroughton (1980)

Yet another implication of the loss of the religious establishment's legitimizing power was their diminished role in public displays of legitimization. Such displays reflect a conscious decision made by the Crown to support the belief in their right to rule. Perhaps the most overtly public display of legitimization in medieval and early modern England was the coronation ceremony. This ceremony was an important public display that both legitimized the monarch and clearly displayed who he believed were his important legitimizing agents. Studying the coronation ceremony thus gives insight into the sources of power and legitimacy and how they changed over time.

The coronations of Henry VIII and his son and successor Edward VI were quite revealing. Henry VIII's pre-Reformation coronation (joint with Catharine of Aragon) went according to the usual custom – Henry and Catharine were escorted and crowned by two bishops, and their ceremony was heavy in religious symbolism. The change in the ceremony under Edward VI – the first king to come to power after the Reformation – was striking and dramatic. In every aspect of the ceremony, the role of religion was either reduced from previous ceremonies or altogether absent. Perhaps the most important difference was the identity of Edward's escorts; instead of the two customary bishops, he was escorted by a single bishop and a secular lord (the Earl of Shrewsbury) (Strong 2005, p. 199-200). This was an important change because it reflected a shift in the identity of who makes the king. No longer was sanction from religious authority sufficient (or perhaps even necessary) – propagation by the secular elite was also critical.

More generally, there was a dramatic reduction in the role of religion in Edward's ceremony. Old religious vestments were discarded as superstitious relics.²¹ The regalia on the altar were delivered by the great lay magnates, save one piece from the Archbishop of Canterbury (Strong 2005). In addition, the order of homage to the new king reflected the new balance of power: Lord Somerset was the first to render homage, followed by the Archbishop of Canterbury and the Lord Chancellor, and then the lords and clergy collectively. Likewise, the text of the coronation sermon was changed to reflect the new reality. It emphasized Edward's supremacy and the banishment of the papacy from England (Hunt 2008, p. 85). Strong (2005, p. 199-200) notes the general feel of the ceremony was vastly different than its predecessors:

What must have struck potently those present was the shift in emphasis away from the clergy in favour of the laity ... When the young king was carried in a

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²¹ There was no mention of vestments of St. Edward in Edward VI's ceremony, "banished no doubt, too, as superstitious relics, a rejection which was not extended to the actual ornaments" (Strong 2005, p. 202).

chair to the four sides of the scaffold, with Cranmer at his side, it was not for a ritual which could be regarded in any way as election, but for the recognition of Edward as the 'rightfull and undoubted enheritour by the laws of God and man to the Royal Dignitie and Crowne Imperiall of this realme ... Edward was the first king to issue a proclamation declaring that he had come to the throne 'fully invested and established in the crown imperial of the realm.

In other words, religion no longer made the king a king: the king came to the throne as king with or without the consent of the religious establishment.

Persistence of the Legitimacy Shift

It is one of the primary conjectures of this paper that the post-Reformation changes in the nature of legitimacy had a long-run effect on English economic policies and also played a crucial role in the momentous political events of the 17th century. A key aspect of this argument is that the post-Reformation shift away from religious legitimacy towards the House of Commons was *permanent*. In this section, we argue that this change in the relative power of legitimizing agents persisted throughout the Tudor period.

The children of Henry VIII – Edward VI, Mary I, and Elizabeth I – did not ascend to the throne with the same level of legitimacy as their father. Henry VIII was an undisputed adult male heir; as discussed in the introduction, this gave him a legitimate claim to the throne which bolstered his overall legitimacy (i.e., π was large). However, Edward, Mary, and Elizabeth were not adult male heirs. Edward was a sickly child of 9 (he died at 15), and Mary and Elizabeth were the first two solo female monarchs of England (besides the brief reign of Matilda in 1141). In addition, Mary and Elizabeth were officially labeled as bastards under Henry VIII by separate acts of Parliament in 1533 and 1536, making them ineligible to inherit the throne (Mary was declared a bastard when Anne Boleyn ascended to the throne in order to make way for her daughter, Elizabeth; Elizabeth was declared a bastard after Henry had Boleyn's head removed).

Although both Mary and Elizabeth's bastardy was revoked by Parliament in the Third Succession Act of 1543, there were open questions about their rights to the throne. Religious tensions also weakened their claim as legitimate rulers. Mary intended to re-impose Catholicism on England (often violently, hence her nickname "Bloody Mary") while Elizabeth intended to re-introduce Protestantism. Their weak external legitimacy (π) combined with the fact that they could not employ the Church to bolster their claim encouraged them to turn to Parliament to legitimize their rule.

The role of Parliament in legitimizing the monarch was quite explicit in both Mary and Elizabeth's reigns. Amongst the first acts of Parliament in each of their reigns were ones confirming their claim to the crown. The names of these acts were revealing: the Legitimacy of the Queen, etc. Act of 1553 (1 Mar. st. 2 c.1) and the Queen's Title to the Crown Act of 1558 (1 Eliz I c. 3). Parliamentary legitimacy was especially important for Mary, who faced a rival claimant to the throne in Lady Jane Grey. Mary faced two additional problems as she took the throne, both of which could be reconciled by Parliament: i) she wanted to turn re-introduce Catholicism to England, but could not do so without Parliament's consent, and ii) her status as an illegitimate daughter of Henry VIII could not formally be reversed without Parliament meeting. Furthermore, the Catholic Mary could have been declared Supreme Head of the Church of England upon her ascension to the throne. As a Catholic and a female, this presented a legitimacy problem: her ascension threatened the newly form Anglican Church, she was not (in the eyes of many) a legitimate child of Henry VIII, she was the first female monarch to ascend the throne, she was threatened by a rival claimant (albeit one with a weaker claim to the throne), and she could not turn to an independent Church to bolster her claim. Hunt (2008, p. 111)

explains that Mary and her advisors were quite aware that Parliament could be used to solve this legitimacy problem:

As a possible solution to this problem ... certain key members of [Mary's] Council proposed to postpone Mary's coronation until after Parliament had opened and safely declared her queen. Such a reversal of the established sequence of events at the beginning of a monarch's reign was unprecedented, and it signals a fundamental turning point in the sixteenth century. Mary would be first and foremost a parliamentary queen; she would owe her authority to Parliament first, not to God." (italics ours).

This proposed plan never came to fruition, and Mary's coronation was followed by the seating of Parliament, as was the custom. Yet, this episode is revealing, as it suggests a fundamental change in how the English monarch was legitimized. Most importantly, it indicates that Parliament was the Crown's primary source of legitimacy; without Parliament's consent, the monarch did not have the right to rule.

Indeed, the coronation ceremony indicated just how tenuous Mary's legitimacy was at the time of her ascension. Despite plans to reinstitute Catholicism, Mary refrained from any overt pro-Catholic or anti-Protestant displays. Mary followed Edward in being led by both a bishop and a nobleman. As in Edward's ceremony, the ornaments were presented by high-ranking lay magnates (Strong 2005, p. 206). Her coronation mass was performed according to the "old ritual", but the alterations to Edward's coronation was minor. In the end, Parliament was the clear winner in Mary's rise to power. They supported her claim and in return became the body that legitimized the monarch. Hunt (2008, p. 11) notes that this shift was reflected in Mary's coronation: "Mary's coronation represented a seismic shift in the power of Parliament over monarchy, fundamentally reconfiguring the legitimacy and purpose of a monarch's coronation."

This shift in power towards Parliament was also reflected in Elizabeth's coronation ceremony in 1559. Elizabeth further enhanced the role that secular elites played in legitimizing

her rule. In the coronations of her siblings, Edward and Mary, the monarch was escorted by a bishop and a lay magnate. Elizabeth dropped the bishop and was led by the earls of Pembroke and Shrewsbury. For the first time, the bishops paid homage after the lay magnates (not before, as had been the custom). Elizabeth also eliminated the presence of the clergy in the streets on coronation day (in the past, they censed and sprinkled the monarch with holy water as he passed) (Strong 2005, p. 211). Prior to the coronation mass, Elizabeth ordered the removal of an 'idolatrous' act associated with the Catholic mass, elevating the host. When the Bishop of Carlisle elevated the host as usual, Elizabeth rose and departed after the Gospel had been read (Hunt 2008, p. 154). Strong (2005, p. 212) notes that the meaning of these changes was obvious to onlookers: "[An observer] catches at once what 1559 was really about, a realization by the queen that the future of the monarchy lay no longer with the Church. Rulership was Godordained, but it needed the support of the people."

The upshot was that Elizabeth relied more on Parliament than any of her predecessors. She made this explicit at the end of her coronation address, noting that it was necessary for her to "consult for the worthie government of her people", meaning Parliament (Strong 2005, p. 225). Once Parliament reconvened, she instituted her "re-Reformation" with the consent of Parliament, as her father had a quarter of a century earlier. Indeed, Elizabeth's first Parliament in 1559 passed numerous acts on religion, including those restoring first fruits and tenths to the queen, one suppressing Marian monastic houses and returning their property and profits to Elizabeth, and one empowering Elizabeth to acquire episcopal lands in return for tithes.

The growing importance of Parliament is further seen in the frequency with which it was called. van Zanden et al. (2012) argues that this is the best metric for the relative strength of Parliaments in medieval and early modern Europe, since parliaments were only called when the

elites were needed by the king, generally for funding war. Table 3 shows the number of Parliamentary sessions throughout Europe in the late-medieval and early modern periods. While there is no obvious break in the increasing trend of the frequency of English parliamentary sessions in the 16th century, the comparison with Catholic Europe is telling. The number of Italian and Belgian sessions peak in the 16th century only to fall off dramatically in subsequent centuries, while Spanish, French, Portuguese, and Polish sessions peak in the 15th century. The point is clear: unlike their Catholic counterparts, the importance of the English (and Dutch) Parliament *persisted and grew* through the end of the 18th century.

Table 3: Sessions of Representative Assemblies, 12th-18th centuries

	12th	13th	14^{th}	15th	16^{th}	17th	18th
England	0	6	88	128	155	132	193
Austria	0	0	0	0	5	3	2
Belgium	0	0	0	20	80	10	10
Denmark	0	0	0	5	10	10	0
France	0	4	8	19	12	2	1
Holy Roman Empire	0	0	16	128	320	337	284
Hungary	0	3	5	10	10	19	17
Ireland	0	0	30	50	45	40	50
Italy	0	55	217	221	273	208	100
Netherlands	0	0	0	20	80	100	100
Poland	0	0	20	90	5	0	0
Portugal	0	9	27	47	12	14	0
Russia	0	0	0	0	2	30	0
Spain	9	98	183	216	175	107	14
Sweden	0	0	0	0	19	35	33

Source: van Zanden et al. (2012)

IV. Long-Run Consequences: The Civil War and Naval-Commercial Policy

The Causes of the English Civil War

There are numerous facts about the pre-Civil War period that seem difficult to account for at first glance. First, Charles I chose to confront Parliament by marrying a Catholic princess and aligning with Catholic powers. Second, the transgressions that helped trigger the war were all done within the context of the law. How do we explain these stylized facts? Why would Charles I invite a Civil War, and why did he feel the need to do so within the confines of the law?

Our framework suggests that these actions can in part be accounted for by analyzing the institutional roots of Charles I's political legitimacy. An important feature of Charles' legitimacy was that he was the first adult male heir since the Reformation. This gave Charles I a source of dynastic legitimacy (π) that was absent during the reigns of Edward VI, Mary I, Elizabeth I, and James I. Charles' security in the legitimacy of his kingship was reflected in his coronation ceremony. There was no urgency surrounding the ceremony – it took over 10 months between Charles' accession and coronation. For Charles I, the coronation was seen as an additional, but not essential, rite of king-making (Strong 2005, p. 252). Indeed, Charles did not even bother to enter London in a procession, unlike his father James I and the Tudor monarchs (Strong 2005, p. 267). In other words, Charles I did not feel that a public display confirming his legitimacy was necessary; he was the king by right and inheritance, not because Parliament approved of him.

Another important feature of Charles I's reign was the significant level of non-direct tax revenue (i.e., revenue not received from Parliament) available to the Crown. In medieval and early modern England, the sources of non-direct revenue available to the king were customs, asset sales, and an assortment of other levies. The most important of these in the early 17th century were customs revenue, which were increasing rapidly during Charles I's reign due to an

increase in the level of overseas trade (in the Mediterranean, Southern Europe, East Indies, and Americas). The fraction of Charles I's revenue coming via such means was much larger on average than under the Tudors, and it was increasing on the eve of the Civil War (see Figure 5).

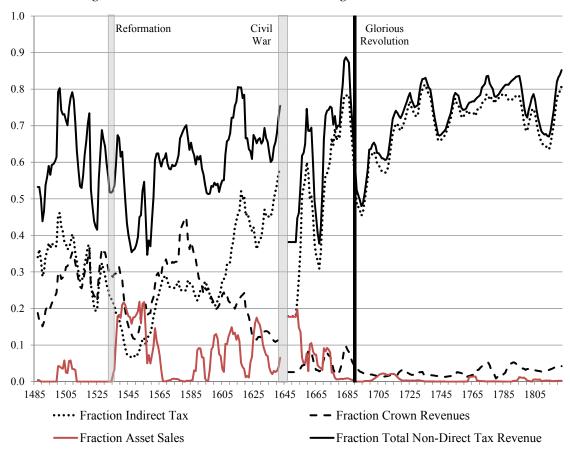


Figure 5: Non-Direct Tax Revenue in England, 1485-1815

 $Source:\ O'Brien\ and\ Hunt\ (2013),\ all\ data\ are\ smoothed\ over\ a\ 5\ year\ interval$

The model highlights the importance of non-direct tax revenue (t_K) in determining the nature of the relations between the king and Parliament. In particular, the model's extension suggests that Charles I faced a unique – and potentially volatile – combination of factors. On the one hand, he was much stronger than any of the other post-Reformation monarchs. He had greater access to indirect taxation (t_K) than any post-Reformation monarch besides his father and he had greater independent legitimacy (π) , as an adult male heir, than any monarch in this period

save Henry VIII. On the other hand, unlike the pre-Reformation monarchs, he did not have the Church as a legitimizing agent (λ was low), and he faced a Parliament whose importance and wealth had increased dramatically in the previous century (ϕ was high). The model's extension indicates that he therefore had two options. He could either negotiate with Parliament – he needed their legitimacy but not their tax revenue – or he could search for an alternative source of legitimacy. Proposition 3 suggests that when λ is low and t_K is high, the king is incentivized to search for alternative forms of legitimacy, even if it means that no deal can be struck with Parliament. This is precisely the course of action that Charles I chose. Charles I did not call Parliament from 1629 to 1640, initiating a period of "personal rule" that ultimately caused Parliament to revolt.

In other words, Charles I attempted to re-establish the institutional foundations of legitimacy that dominated pre-Reformation England. He forged alliances with Catholic interests to re-introduce the equilibrium where a rich king was legitimized by the Church (i.e., high t_K and high λ). Charles had both the financial ability to rule without Parliament (although not to conduct expensive warfare) and the personal legitimacy (π) to rule without them; he simply needed an independent agent to confirm his legitimacy. While Catholicism was not as popular in England as it had been prior to the Reformation – and it thus could not provide as much legitimacy as it had in the medieval period – it was still an *independent* source of legitimacy that could bolster Charles' rule to a much greater extent than the Anglican Church.

Charles I's decision to confront Parliament on religion is therefore understandable in the context of the multiple political-economy equilibria that were possible during his reign. In Charles' desired equilibrium (high t_K and high λ), Parliament had no role; it would not provide the Crown with revenue or legitimacy, and it would consequently have little bargaining power.

Obviously, this did not sit well with those in Parliament, whose role in ruling England had increased immensely during the Tudor period. The Tudors had responded to the weakening of the Church by sharing rule over England with Parliament. This was part of the bargain that kept a Parliamentary revolt (i.e., Parliament choosing not to legitimize the Crown, p=0) off of the equilibrium path. Charles I's decision not to share rule, and his threat to secure an alternative source of legitimacy, forced Parliament's hand. The Civil War, therefore, was not about whether Charles I had the rights to certain streams of tax revenue or whether Charles I could rule without calling Parliament. The core, underlying fight between Parliament and Charles I was over whether or not Parliament was a legitimizing agent of the Crown.

The historical evidence supports this conjecture. First, there is the religion issue: not only did Charles (and, to a lesser extent, James I) choose to ignore Parliament; he intentionally antagonized them on the question of religion. This antagonism manifested itself in numerous ways. Both James I and Charles I failed to support the Protestant effort in the Thirty Years' War, preferring instead to broker a peace with Catholic France and Spain. This was a major source of contention with both the anti-Spanish and anti-Catholic factions of Parliament. In 1637, a delegation of Lords assured Charles that "Parliament would readily consent to supply him with all he might desire" if he declare war on Spain, but Charles instead chose the pro-Catholic alliance (Brenner 1993, p. 300). Peace with Spain provided enormous benefits to the Crown that were outside the scope of Parliament: it increased customs revenues (through increased trade), avoided an expensive war, and ensured a financial backstop from Spain. By avoiding the expenses of going to wars with the Catholic powers, the Crown could also avoid calling Parliament, since there was much less need for direct taxes.

The Stuarts overtly antagonized Parliament on religion in many other ways. Within three months of ascending to the throne, Charles married the Catholic princess Henrietta of France, stirring suspicion that Charles would try to undermine the Anglican Church. And indeed, Charles' most controversial religious policies involved the imposition of an anti-Calvinist brand of Protestantism (particularly Aminianism). In his first years on the throne, Charles appointed numerous anti-Calvinist clerics to policy-making positions, culminating in the 1626 "Proclamation for the Peace and Quiet of the Church", which outlawed Calvinist teaching on a national basis (Brenner 1993, ch. 6). Charles I also increased toleration for Catholics, attempted to impose structure on the Church, and regulate the liturgy. The latter actions caused a revolt in Scotland (the Bishops' Wars). After Charles decided to subdue the revolt without recourse to Parliament, Parliament used this opportunity to commence hostilities that spiraled into the Civil War.

Once Charles made the decision to stop negotiating with Parliament in 1629, he attempted to derive revenue from any source possible. On top of the controversial ship money extraction, he also attained revenue through wardship, purveyance, forest fines, knighthood fines, all of which went directly into the Crown's coffers (Smith 1999, p. 11). Yet, Charles I's willful dismissal of Parliament in the 1630s weakened the legitimacy of his actions. This was a problem for Charles, because ruling without Parliament meant levying these unpopular taxes, which were all the more difficult to accept from a weakly legitimized king. This is why Charles attempted to legitimize his actions by *following the law*. The legitimacy conferred by following laws, no matter how archaic, explains why Charles acted in the manner he did. It is true that there was plenty for Charles to gain from openly violating the law and acting like a tyrant – doing so would have opened up new sources of badly needed revenue. Yet, the costs were greater, and it is not

clear that Charles could have acted tyrannical had he wanted to. Without Parliamentary consent, acting like a tyrant would have fundamentally undermined his claim to legitimacy.²²

Thus far, we have identified a number of reasons why Parliament came into conflict with Charles I. For one, the crown's growing independent stream of revenue gave him significant power over Parliament. In the 1630s, unprecedented growth in overseas trade (in southern Europe, the Mediterranean, and Levant) gave the Crown sufficient revenue that Charles was able to avoid calling Parliament from 1629 to 1640. This eventually encouraged the elite in Parliament to "move first" to control these sources of revenue (particularly customs) and limit the crown's unchecked transgressions. Their primary objection to Charles' actions were that they threatened to alter the basis of political legitimacy to one with a wealthy king (high t_K) with religious legitimacy (λ), thereby *leaving no place for Parliament in the governance of England*. Hence, North and Weingast (1989) were correct that Charles I's encroachments on property rights were important in pushing the Parliament towards Civil War. We simply place their assertion in a broader context relating to the political, economic, and religious confrontations between Parliament and the Crown. 23

English Naval and Commercial Policy

The model provides intuition for how changes in the institutional foundations of political legitimacy affect the provision of public goods (G). Proposition 1 and 2 indicates that, the decrease in religious legitimacy (λ) following the Reformation should have resulted in public

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²² Moreover, attempting to confiscate without regard to the law could have been counter-productive for Charles – it would have encouraged more tax evasion (possibly decreasing total tax revenue) while decreasing his overall legitimacy.

²³ Of course, after Parliament overthrew the Crown, they had legitimacy problems of their own. Not only did they not have any source of personal or dynastic legitimacy (π), they had no legitimizing agent to help propagate their rule. Instead, they were left to declare themselves as legitimate (Brenner 1993, p. 564-5), which added nothing to their perceived legitimacy. In future work, we argue that this is why the Stuarts were restored in the manner they were.

good provisions that was more favorable to Parliament. In this section, we employ this insight to shed light on the changes in naval and commercial policy.

Parliament and the Crown desired a strong navy for different reasons. The primary benefits to Parliament of a robust naval policy were i) England was protected from their (mainly Catholic) rivals, and ii) trade was bolstered by the protection that a strong navy can provide merchant ships. A strong navy was therefore good for the commercial interests allied with Parliament, and it was also good for the country as a whole. On the latter interest, Parliament was aligned with the Crown. Hence, England was able to protect itself from external invasion with its navy. Most famously, the English navy was able to repel the Spanish Armada in 1588. This is not surprising – the value of the public good (naval protection) increased dramatically to both Parliament and king during times of external attack. With the incentives of both parties sufficiently aligned, it followed that naval expansion was agreed upon during times of attack.

However, the Crown also benefitted from a strong navy – and the increase in trade it entailed – through increased customs revenues (t_K). This was one of the primary reasons that the Tudor and Stuart monarchs used the navy to vigorously promote trade, when possible. For instance, in the late 16^{th} and early 17^{th} centuries, the Crown expanded English commerce by ordering attacks on Portuguese, Spanish, Ottoman, and Venetian commercial strongholds and Barbary pirates in the Mediterranean. These protections were generally aimed at assisting merchant companies aligned with the Crown. ²⁴ More generally, Brenner (1993, p. 46) notes:

Highly restricted, in comparison to a number of their Continental counterparts, in their capacity to tax the land, English monarchs were more and more dependent on the returns from customs and, for this reason amongst others, had to facilitate, to the extent that they were able, the expansion of overseas trade.

²⁴ For example, the attacks on the Barbary pirates were the Crown's response to pleas from Levant Company merchants to protect English shipping in the Mediterranean (Brenner 1993).

It follows, paradoxically, that post-Reformation Parliaments opposed increases in customs rates despite the fact that they had relatively little effect on the wealth of most individual MPs (who were primarily in the landed classes).

Our model explains the intuition behind Parliament's opposition to increased customs revenues prior to the Civil War. The optimal level of naval power was lower for Parliament (G^P) than it was for the king (G^K) – increased naval power decreased Parliament's bargaining power by increasing customs (t_K) – and thus the equilibrium level was somewhere in between the two. These differences in G^P and G^K were exacerbated by the weakening of religious legitimacy (λ). When religious legitimacy was weak, it was in the interest of Parliament to keep customs (t_K) low. The reason follows directly from Proposition 3: with greater customs revenue, the Crown would have been all the more incentivized to seek alternative sources of legitimacy (e.g., Catholicism), thereby undermining Parliament's legitimizing role. Hence, customs revenues were intimately tied to the basis of political legitimacy in England; Parliament wanted to limit them because they threatened their role as legitimizing agent of the Crown.

The costs and benefits to Parliament of a strong navy were very different after they removed the monarch during the Civil War, however. With the customs revenues accruing to the king no longer threatening their role in policy-making, Parliament was free to pursue a pro-trade policy. Such policy was especially beneficial to overseas merchants, who had extraordinary influence with Parliament, and it was also good for England. The buildup of the navy was amongst the most critical of these pro-trade policies. Soon after the execution of Charles I, the government established the goal – paid for with customs revenues – of establishing a permanent naval fleet. 20 percent of the Commonwealth budget was spent on the navy and 147 ships were

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²⁵ This insight is consistent with Brenner (1993, p. 238, italics ours): "For the landed classes, arbitrary taxes on trade, though economically relatively painless, constituted a real danger to their fundamental liberties of property and of Parliament, and concomitantly *their power within the state*."

added between 1649 and 1654 (Brenner 1993, p. 580-4). This was in stark contrast to the previous century, where the number of warships increased only slightly (Figure 6). The increased naval power was immediately used to bolster trade. For example, a 1650 expedition devastated the Portuguese fleet, opening up the Portuguese colonies to English trade and inducing the Spanish crown to open up ports in Spain, Italy, and Sicily (Brenner 1993, p. 581).

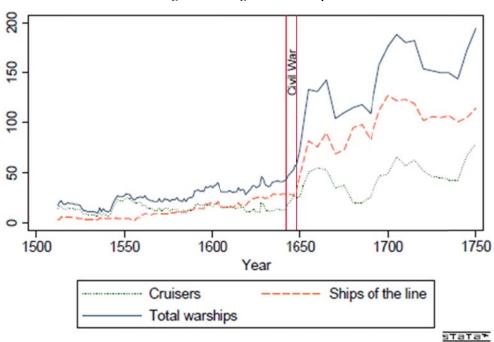


Figure 6: English Warships

Source: Jha (2010)

This policy shift was also manifested in foreign policy. In the century prior to the Civil War, the English had primarily been involved in was that were either defensive (such as the Anglo-Spanish war) or small parts of larger conflicts (such as English intermittent entry into the Eighty Years' War). With the removal of the king, however, Parliament was induced to enter wars favorable to commercial interests. Indeed, both wars that England participated in during the Interregnum, the First Anglo-Dutch War (1652-1654) and the Anglo-Spanish War (1654-1660),

were fought explicitly over commercial policy, aiming to stifle two of England's biggest competitors in world trade.

The pro-commercial transition of Parliamentary policy following the Civil War was also manifested in commercial policy. Prior to the Civil War, commercial policy was largely focused on supporting the merchant companies who had close relations to the Crown. The Crown had a significant amount to gain by reacting favorably to requests for company privileges (namely, securing a monopoly on trade), as they provided a secure stream of customs revenue, which was outside of the purview of Parliament. These merchants also provided additional sources of financial support that was not subject to Parliament's consent (loans, charter fees, forced loans), giving the King greater bargaining power vis-à-vis Parliament increasing t_K). This quid pro quo was first manifested in the 1550s and 1560s between the Crown – desperately in need of funds – and the Merchant Adventurers, who received significant royal protection in return for financial support. Much more lucrative relationships for the Crown were held with the Levant Company (beginning in 1592) and the East India Company (1600), both of which lasted to the Civil War. The Crown – not Parliament – gave other limited protections to trade, exemplified by the 1615 navigation policy which provided that all imports from the Levant had to be carried in English vessels and outlawed indirect trade of Levantine commodities (Brenner 1993, p. 49, 209). The symbiotic relationship with the merchant companies ultimately affected the nature of the Civil War, as company merchants, fearing a loss of their privileges, provided Charles I with one of his most important allies (Brenner 1993).²⁶

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²⁶ Brenner (1993) claims that it was the "new merchants" – those involved in the Atlantic trade, most of whom hailed from middling social strata – that provided the bulk of the merchant opposition to the Crown during the Civil War. These merchants are distinguished from Levant, East India, Adventurer merchants, all of whom were established and protected by the Crown.

The type of commercial policies following the Civil War had a very different focus. Instead of focusing on maximizing customs revenues and protecting the rights of favored merchants, the Long Parliament promoted policies aimed simply at bolstering English trade. In 1650, Parliament enacted an order for government convoys to protect Levant Company shipping in the Mediterranean. More importantly, Parliament responded to the increasing threat from the Dutch (following the cessation of the Eighty Years' War in 1648) by enacting the Navigation Acts, which excluded the Dutch from England's colonial trade (and precipitated decades of hostilities against Dutch maritime power). As Brenner (1993, p. 607) notes, "perhaps for the first time, English government fiscal policies were being consciously and systematically shaped to fit the needs of commercial development, rather than vice versa." Such protectionist commercial policies were a natural result of a Parliament interested in bolstering English power and wealth while also not having to worry about filling the Crown's coffers with customs revenue.

Ironically, the increase in trade resulting from Parliament's pro-commercial policies ended up *increasing* the amount of customs revenue. Since Parliament no longer faced a political downside (i.e., decreased bargaining power) from increases in customs, it follows that it should have welcomed the increased in customs revenue, which provided a non-trivial fraction of government revenue. Indeed, by the middle of the Interregnum (1654-55), real customs revenues were greater than they were during the peak of Charles I's reign, despite the fact that Charles I took every measure possible to increase indirect taxes (Table 4). The increase in customs revenue under the Interregnum government casts doubt on the theory that the Civil War was fought to check the tyranny of the Stuarts. If this were the case, then there should have been less income from customs under the Long Parliament, since, under this hypothesis, customs revenues were one of the tools used by the monarchy to maintain its "tyranny".

Table 4: Average net customs revenue in England, 1558-1655

Monarch	Years	Net Customs Revenue (nominal)	Net Customs Revenue (real)*	Fraction of Total Revenue
Elizabeth I	1558-1565	£31,242	£67,682	0.07
	1596-1601	£121,388	£166,935	0.22
James I	1605	£112,400	£147,206	0.20
	1611	£136,226	£162,395	0.19
Charles I	1637-1640	£300,000-400,000	£307,883-410,510	0.35-0.40
	1646	£277,000	£277,000	
Long Parliament	1647	£263,000	£263,000	N/A
	1648	£203,000	£203,000	
	1649	£147,000	£147,000	0.06
	1650	£275,355	£276,187	0.12
	1651	£320,000	£320,967	0.14
Commonwealth	1652	£331,000	£332,000	0.14
	1653	£311,000	£311,940	0.13
	1654	£417,000	£418,260	N/A
	1655	£501,000	£502,514	0.37

Source: Hall (1886) vol 2, p. 234-237, Brenner (1993, p. 241), O'Brien and Hunt (2013)

*Note: Real data from Clark's (2005) cost of living index, 1640s=100

V. Alternative Explanations of 17th Century English Political Economy

Many explanations of England's economic takeoff 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 removal of two monarchs, Charles I and James II (following the Civil War and the Glorious Revolution, respectively), gave Parliament a credible threat to remove any future monarch who encroached on property rights. In their view, this enabled the elite to establish a self-enforcing constitution supported by a system of checks and

balances on all branches of government. This in turn allowed the English crown to borrow at relatively low interest rates, since they could credibly commit to paying their debt.

Following the publication of North and Weingast's article, numerous works pointed to problems in their proposed chain of events. Clark (1996) points out that land prices were stable during the Civil War, indicating that property was secure prior to the Glorious Revolution. This is contrary to one of the primary testable predictions of North and Weingast's theory. They argue that it was the constitutional arrangements following the Glorious Revolution that created the stable economic environment necessary for modern economic growth. The existence of such an environment prior to the Glorious Revolution presents a problem for their argument. Carruthers (1990) argues that North and Weingast missed the main driving force of the Glorious Revolution: this is, namely, that the religious nature of the Exclusion Crisis (1678-1681) and its aftermath was the primary impetus behind Parliament's bloodless removal of James II, not encroachment on property rights. Pincus and Robinson (2011) argue that North and Weingast were correct to focus on institutional changes heralded by the Glorious Revolution, but that party politics were at the root of the changes, not credible commitment.²⁷

The debate surrounding the North and Weingast thesis has not led to any consensus on the causes or consequences of the events of 17th century England. Yet the continued relevance of the North and Weingast thesis (it has been cited over 3000 times) as well as the size of the literature dedicated to addressing their thesis does seemingly suggest that scholars of the period agree one thing: *it matters why the institutional changes that occurred in 17th century England occurred in the manner that they did.* If the Civil War, the Glorious Revolution, and their aftermath were truly the events that precipitated the rise of the modern economy, then

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²⁷ For more problems with the North and Weingast hypothesis, see Wells and Wills (2000), Quinn (2001), Sussman and Yafeh (2006).

understanding why these changes arose when and where they did is essential for gaining insight into the roots of modern economic growth.

North and Weingast are far from the only scholars to put forth an argument on the causes and consequences of the Civil War and Glorious Revolution. In fact, there are three broad strands of literature addressing these events. The first set of hypotheses is Marxian in nature, centering on the early 17th century change in the wealth distribution resulting from increased overseas trade. This argument, which in consistent with North and Weingast's argument that the English Constitution reflected merchants' interests, was fully laid out by Brenner (1993) and was more recently elaborated by Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2012). The general claim is the following: the increase in the wealth of "new merchants" engaged in overseas trade increased the political power of these merchants, 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.

We are sympathetic to this argument, and indeed, it is consistent with the one presented in this paper. However, there are many facts that cannot be explained by this line of reasoning. The first is simply that the merchants engaged in overseas commerce were not wealthy enough to dictate policy. The yearly profits from overseas trade were around £200,000. This was not a trivial sum; it was around one third of the annual income of Charles I (r. 1625-1649) (O'Brien and Hunt 2013). Yet, it was *much* smaller than the annual income of the Commonwealth

government (1649-1653), which was £1,844,000. It was an even smaller portion of expenditures under the Long Parliament, which averaged around £4,000,000 per annum. In other words, the revenues from overseas trade were important, but not so important that they should have been able to dictate policy.

On top of this, the merchants were simply not that wealthy relative to the landed gentlemen. On the eve of the Glorious Revolution (by which time the merchant class was much wealthier than in the first half of the 17th century), the merchant class held 4.41% of the wealth of England (Table 5). Again, this is not a trivial sum, but it pales in comparison to the percentage of wealth held by the landed elite (20.80%). If wealth is the foundation of power – which is an assumption implicit in this set of arguments – then why did merchant interests' dominate those of the landed class, when the landed had almost five times the wealth of the merchants?

Table 5: Did the new merchant become so rich to challenge the system?

English Landed vs. Merchant Elite, 1688

		Income,	Total					
	People	p.c.	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	65.0	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	35.0	4,200,000	7.71%				
Freeholders, greater	192,976	13.0	2,508,688	4.61%				
Total	372,096	30.4	11,323,828	20.80%				
Manahanta ayangaga tuada								
Merchants, overseas trade								
Merchants by sea, greater	16,000	50.0	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)

The difference in wealth between merchants and the landed elite was reflected in the membership of the two classes in Parliament. Throughout the period leading up to both the Civil War and the Glorious Revolution, merchants held around ten percent of seats in Parliament, compared with 50-75% for Gentlemen (Figure 7). Perhaps more importantly, the fraction of merchants in Parliament remained remarkably stable throughout the 17th century. Between 1604 and 1690, the fraction of merchants in Parliament hovered just below 10%. At first blush, this fact does not necessarily present a problem for Brenner's (1993) thesis, as he focuses on the alliances made between new merchants and certain factions of Parliament, not the composition of Parliament itself. Yet, the comparative static problem remains. If the new merchants were truly becoming more and more powerful over this period to the point that they could dictate policy and incite a civil war, and if wealth is truly the foundation of power, the near lack of any change in merchant representation in Parliament before or after the major political changes of the 17th century is surprising. Indeed, it begs far more questions than it answers. In particular, why did the newly found power of the new merchants ever translate into greater representation for their interests?

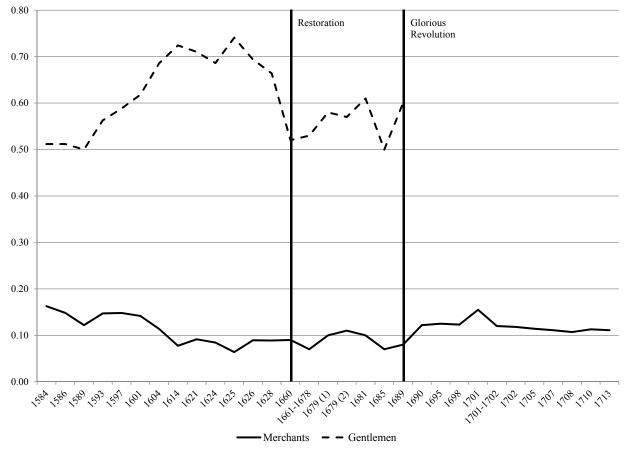


Figure 7: Fraction of Merchants and Gentlemen in Parliament, 1584-1713

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

In addition to the facts that the merchant class was neither wealthy enough nor well-represented in Parliament, it was simply not the case that the leading coalition of elites during the Civil War was significantly different (in terms of families and occupations) than the coalition that emerged in the aftermath of the Reformation (Figure 8). There was significant turnover in the post-Reformation Parliaments, as Henry VIII added new seats in the Commons and took away privileges from the Church in the House of Lords. After this burst of new members into the elite, turnover within Parliament was relatively low, hovering around 5%. Likewise, the number of families that disappeared from the Commons is very small in the Civil War period (around 10%) and does not rise significantly until the 19th century (Figure 9). The implication here is

^{**}Merchant includes merchant and merchant knight for 1584-1628

clear: even if fundamental changes were occurring in the English economic and social structures in the century prior to the Civil War, these changes did *not* fundamentally alter the identity of the ruling parties of England. At best, wealth transferred into political power very, very slowly. Most of the Parliamentary elite came from old families; the new wealth acquired by the new merchants created few direct political opportunities. Of course, the new merchants were far from powerless, and money did help buy influence with the landed elite in Parliament. But this power was indirect; the new merchants hardly dominate English politics before or after the 17th century.

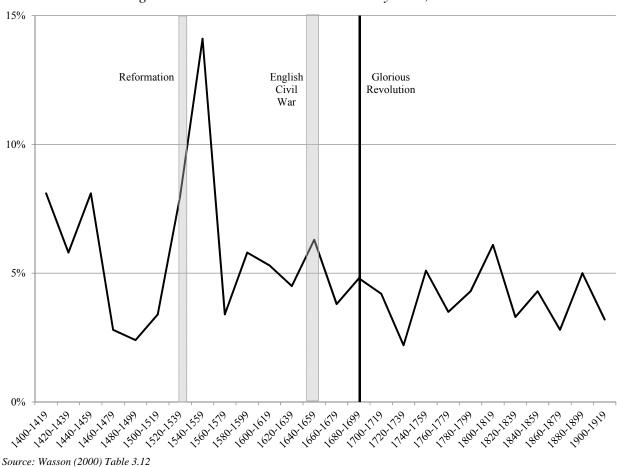


Figure 8: New Entrants to Parliamentary Elite, 1400-1919

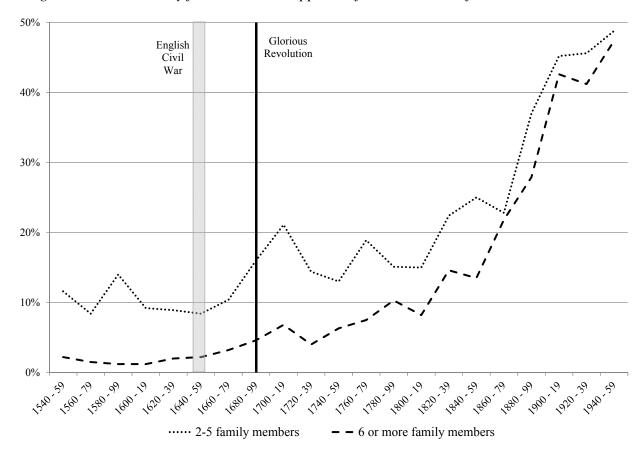


Figure 9: Parliamentary families who disappeared from the House of Commons, 1540 - 1959

Source: Wasson (2000) Table 2.3

Even within the House of Lords, there was a discernible trend towards consolidation of the old elite. Despite the fact that many new peers were created in the first half of the 17th century, most of these new peers had previously served in the House of Commons (Table 6). Prior to the Reformation, less than half of the newly created peers previously served in the Commons. However, in the 150 years following the reign of Henry VIII (1550-1699), around three-quarters of new peers were already members of the Parliamentary elite. These data suggest that the Parliamentary elite who rebelled against Charles I were similar to the elite that formed in the aftermath of the Reformation. This, in turn, implies that a new political elite did *not* emerge in the seventeenth century. Previous MPs filled the ranks of the House of Lords and the same

families that dominated the House of Commons in the pre-Civil War period continue doing so following the war. This is not surprising. According to our argument, membership in Parliament became a much more valuable good after the Reformation. It makes sense that the owners of this good would want to restrict access to it. In the end, although the vast wealth created by the new merchants did allow some access to political power, it was not nearly enough to drive the demands of Parliament or to ignite a Civil War.

Table 6: Newly created Peers who previously served in the House of Commons, 1450-1899

	Former	% Former	Not	% Not	Total New
	MP	MP	Former MP	Former MP	Peers
1450-1499	5	25.0%	15	75.0%	20
1500-1549	14	41.2%	20	58.8%	34
1550-1599	15	78.9%	4	21.1%	19
1600-1649	66	72.5%	25	27.5%	91
1650-1699	39	75.0%	13	25.0%	52
1700-1749	55	98.2%	1	1.8%	56
1750-1799	75	93.8%	5	6.3%	80
1800-1849	83	85.6%	14	14.4%	97
1850-1899	138	71.1%	56	28.9%	194

Source: Wasson, 2000, page 31, table 2.1.

This set of theories has another, more deeply rooted problem. At their heart is the assumption that wealth is the foundation of power. If this is true, it must apply at different times and must be applicable to rulers as well as other economic elites. How, then, can we explain the fact that Henry VIII did not become a tyrant after confiscating the wealth of the monasteries in the 1530s? During the Reformation, Henry VIII engineered the second largest land transfer in English history (after William the Conqueror in 1066) when he dissolved all of the monasteries in England and expropriated their assets. If wealth were truly the foundation of power, Henry could have used this new-found wealth to push through any policy he desired. But he did not do

this. Instead, Henry quickly turned around and sold many of the Church properties to nobles at well below market price. Why would Henry share the spoils of his confiscation in this manner? His actions are inconsistent with the idea that wealth is the foundation of power. His actions are consistent with our hypothesis, however. Since Henry was eliminating one of his primary sources of legitimacy, he needed Parliament's support in order to legitimize his rule. He obtained their support by sharing the spoils of the confiscations with them (and by creating new peers who favored his policies).

A second, and perhaps more relevant counter-example undermining the importance of the connection between wealth and power is seen in the fiscal relationship between Parliament and the Stuart kings Charles II and James II following the Restoration in 1660. In the period between the Restoration and the Glorious Revolution, Parliament granted the king significantly more revenue than Parliaments had granted their predecessors. Why would Parliament do this, if wealth were the foundation of power? If the king had access to revenue outside of the control of Parliament, he would not need to negotiate with Parliament. Indeed, James II was secure enough financially that he was largely able to avoid calling Parliament. If wealth were the primary foundation of power, it is difficult to account for Parliament's actions: why would they voluntarily give up their main source of power? Our framework explains Parliament's actions under Charles II and James II. Parliament could permit these kings to have significant independent resources (t_K) because the Crown needed Parliament for legitimacy even more than their predecessors (due to the aftermath of the Civil War). This meant that Parliament still had significant bargaining power with the Crown even if it was not as important of a source of revenue as it had been in the past. This dynamic only changed after James II fathered a Catholic son. This development meant that the Church could potentially play a role in legitimizing future

kings, thus undermining Parliament's legitimizing role. As in the case of the Civil War, these events triggered a Parliamentary revolt (the Glorious Revolution).

The second set of hypotheses addressing the events of the 17th century suggests that they were a result of the broader fight against the tyranny of the Stuart kings. This hypothesis is consistent with North and Weingast (1989), who note the importance of the numerous encroachments of James I and Charles I prior to the Civil War and those of Charles II and James II prior to the Glorious Revolution. In this view, an abusive king was pitted against Parliamentary elite who revolted over the king's repeated attempts at exercising arbitrary power and deriving revenue from non-Parliamentary sources. Indeed, James I and Charles I scoured England in search of indirect tax revenue (e.g., forced loans, ship money, wardship, purveyance, forest fines, knighthood fines), and Charles II attempted to recharter local governments to limit the checks on his power.

We are also sympathetic to this view, and it too is not contradictory to the ideas presented in this paper. Yet, it also cannot account for many important economic and political phenomena from this period. The first problem is that the Stuart kings were simply not wealthy enough prior to the Civil War to act as tyrants. The income of both James I and Charles I was less than 2% of GDP (Figure 10) – hardly a trivial amount, but significantly less than under the Long Parliament (1649-1660). The ability of the crown to access funds increased following the Civil War, and it rapidly rose following the Glorious Revolution. This is exactly the opposite of what the "tyranny hypothesis" predicts: it the tyranny of Charles I and James II was what provoked the Civil War and Glorious Revolution, these two kings should have been the wealthier than non-tyrannical

monarchs. In fact, the crown was the weakest (financially) on the eve of the Civil War and not that much stronger on the eve of the Glorious Revolution.²⁸

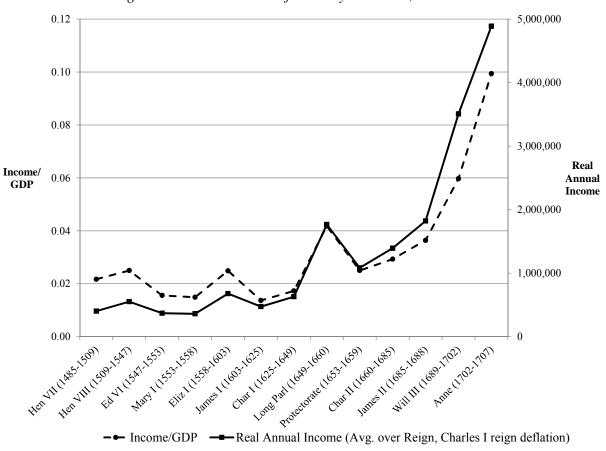


Figure 10: Income Share of GDP by Monarch, 1485-1707

Source: O'Brien and Hunt (2013), Clark (2005); deflated by price series with 1860 = 100

There are deeper problems with the premise that the Civil War and Glorious Revolution were fights against tyranny. First, it cannot explain why the Stuarts sought a legal basis for their extractions. For example, one of Charles I's most famous and contentious taxes was his attempt to collect "ship money" on inland towns in 1634. Ship money was an old medieval tax that was levied on inland towns as a cost of protection. Charles' attempt to re-levy it on these towns is

 $^{^{28}}$ The fact that Charles I had a small percent of GDP relative to other monarchs does not undermine the hypothesis that we present, based on the fact that Charles had access to a significant amount of indirect taxation (t_K). For our story, the level of t_K is what matters (that is, was it enough to discourage negotiating with Parliament?). In the tyranny hypothesis, what matter is the Crown's wealth *relative* to the rest of the country.

often cited as one of the major sources of contention in the pre-Civil War period, as numerous local governments openly defied Charles by ceasing to collect ship money. Yet, there is one aspect of this tax that is overlooked: Charles attempted to extract this tax within the context of the law. If he were truly a tyrant, why did he not simply expropriate these funds? The same can be said for Charles I's use of knighthood fines and forest fines. Charles imposed these medieval customs, which forced their unlucky recipients to pay fees that went straight into the crown's coffers. Why did Charles use this mechanism? If he were truly a tyrant, why would he not simply expropriate rents from men of means? Our approach centered on legitimacy explains Charles I's actions. Since he was attempting to rule without Parliament and he had little religious legitimacy, he was forced to legitimize his actions by remaining within the confines of the law. Following the law had always been a source of legitimacy in England (and elsewhere), as long as it was viewed as something that was outside the power of the king to augment.

Another more deeply rooted problem with the tyranny hypothesis is that the same means used by the monarchy to extract resources were also used by the Parliament during and after the Civil War and Glorious Revolution. If the fights were really about the "abuse of property rights", why would Parliament use the same means of collecting taxes as the Stuarts? In fact, Parliament was even more resourceful in acquiring revenue in a non-voluntary manner than the Stuarts. The Commonwealth government was the first to impose an excise tax, and they established many other creative sources of involuntary revenue. One example of such a tax was the weekly "meal tax", which was a "necessary contribution from every person of the price of one meal a week, which he was obliged to retrench" (Dowell 1884, vol. 2, p. 6). While it is certainly possible for an overthrown tyranny to be replaced by a different tyranny, such an explanation cannot explain why England fostered an environment conducive to an economic takeoff.

The third set of hypotheses addressing the events of the 17th century claims that they were the result of religious conflict between a Protestant Parliament and a Stuart house with Catholic inclinations. This literature mainly focuses on the Glorious Revolution, in which the Catholic king James II was replaced by the Protestant monarchs William III and Mary II soon after the birth of James' son. According to this argument, the seeds of the religious revolt were initially sewn during the Exclusion Crisis of 1678-1681, where the newly-formed Whig party attempted to exclude James II from being named as the lawful successor to Charles II (who had no direct heir). The failure of the Exclusion Bill set the stage for future contention between the predominantly Protestant Parliament and the Catholic James II (Carruthers 1990). This argument also suggests that religion played an important role in the Civil War, citing the numerous (previously mentioned) anti-Calvinist policies undertaken by James I and Charles I.

There is one major problem with the "religion hypothesis". This is, namely, that it views religion as exogenous. There is an implicit assumption in this literature that the king simply ascribes to a certain religion and religious tension may arise if this religion is not the same as that of the elite. This ignores the reality that religion (i.e., choice of religious agent) is a choice variable. While it may be true that the Stuarts were devout in their religion (although this is debatable), any actual feelings of devoutness can be interpreted as merely increasing the cost of changing religions, not as an absolute impediment to changing religions. This cost is far from trivial, but it is not necessarily so great that a ruler would maintain a religious identity even if it triggers a Civil War or causes his ouster. In other words, the "religion hypothesis" begs a very simple question: why did the Stuarts choose a religion to confront Parliament? They had a host of policy objectives – why would they choose a religion that limited their ability to achieve these objectives? If religion is considered as a choice variable, religious conflict is at best seen as a

proximate cause of the Civil War and Glorious Revolution. Our model explains the Stuart's confrontational choice. We argue that a new religion can benefit the king when his religious legitimization is low and his indirect taxes are high. In this case, a new religion can provide him with the legitimacy needed to rule without Parliament, as long as the new religion is independent of the king. We argue that this is precisely why Charles I and James II chose Catholicism.

VI. 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 (as well as the increase in English inventiveness and the Old Poor Law)²⁹ all either coincided with or preceded the major events of the 17th century. Was it a coincidence that these events occurred in England at this point in time?

We do not claim that the wealth of new merchants, the "tyranny" of the Stuarts, or religious conflicts were unimportant. Instead of focusing on what each of these explanation misses, we search for their common origin and complementary relationships. A framework centering on the relationship between the Crown and its legitimizing agents provides a unifying framework which accounts for all of the observed institutional, economic, 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

 $^{^{29}}$ In future work we will apply the model's insights to account for a host of changes in English economic policy in the 17^{th} and 18^{th} centuries, including the Old Poor Law and policies encouraging inventiveness.

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.

Specifically, we present a theoretical argument which focuses on the manner in which rulers derive legitimacy and how this affects the types of policies that they promote. We argue that the Reformation shifted the institutional bases of political legitimacy to the elite in Parliament. This, in turn, weakened the bargaining position of the monarchy vis-à-vis Parliament. Most of the literature focuses on the 17th century as setting the stage for the modern economy in England. 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. More generally, our argument suggests that the mechanisms through which rulers are legitimized matters, since they affect how and with whom the king bargains over policy and revenue. We stress that our hypothesis is not meant to displace the insights of North and Weingast (and Wallis), Brenner, Acemoglu and Robinson, O'Brien, Allen, Mokyr, and many of the other scholars who have given important insights into the origins of the modern economy. Indeed, all of these works provide important insight with which we agree. Instead, the goal of this paper is

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³⁰ There is a long literature, dating back to Weber's (1905) famous "Protestant Ethic" hypothesis, linking the Reformation to positive long-run economic outcomes. Weber's hypothesis that the Calvinist doctrine of predestination encouraged adherents to work hard to prove that they were part of the elect has received criticism since it was proposed. For instance, Tawney (1926) argued that the secularization of law and political economy and the subsequent deregulation of the Church's anti-capitalist influence was the important outcome of the Reformation. Economists have recently become more interested in the long-run connection between the Reformation and economic outcomes. Becker and Wößmann (2008, 2009) propose that the causal pathway connecting Protestantism to long-run economic success is human capital (although Cantoni [2013] finds evidence disputing this claim], while Arruñada (2010) argues that Protestants did not have a unique work ethic, but instead had a "social ethic" which favored market transactions. Young (2009) overviews a number of possible, non-mutually exclusive reasons that Protestant regions had better long-run outcomes (through World War II) than Catholic regions.

to account for these insights within one unifying framework centered on institutional basis of political legitimacy.

References

- Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2005. "The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth." *American Economic Review* 95(3): 546-579.
- Acemoglu, Daron, and James A. Robinson. 2012. Why Nations Fail: The Origins of Power, Prosperity, and Poverty. New York: Crown.
- Allen, Robert C. 2009. *The British Industrial Revolution in Global Perspective*. Cambridge: Cambridge University Press.
- Arruñada, Benito. 2010. "Protestants and Catholics: Similar Work Ethic, Different Social Ethic." *Economic Journal* 120(547): 890-918.
- Baugh, Daniel A. 1988. "Great Britain's 'Blue-Water' Policy, 1689-1815." *International History Review* 10(1): 33-58.
- Becker, Sascha O. and Ludger Wößmann. 2008. "Luther and the Girls: Religious Denomination and the Female Education Gap in 19th Century Prussia." *Scandinavian Journal of Economics* 110(4): 777-805.
- Becker, Sascha O. and Ludger Wößmann. 2009. "Was Weber Wrong? A Human Capital Theory of Protestant Economic History." *Quarterly Journal of Economics* 124(2): 531-596.
- Binmore, Ken, Ariel Rubinstein, and Asher Wolinsky. 1986. "The Nash Bargaining Solution in Economic Modeling." *RAND Journal of Economics* 17(2): 176-188.
- Brenner, Robert. 1993. Merchants and Revolutions: Commercial Change, Political Conflict, and London's Overseas Traders, 1550-1653. Princeton: Princeton University Press.
- Cantoni, Davide. 2012. "Adopting a New Religion: The Case of Protestantism in 16th Century Germany." *Economic Journal* 122(560): 502-531.
- Cantoni, Davide. 2013. "The Economic Effects of the Protestant Reformation: Testing the Weber Hypothesis in the German Lands." Working Paper.
- Carruthers, Bruce G. 1990. "Politics, Popery, and Property: A Comment on North and Weingast." *Journal of Economic History* 50(3): 693-698.
- Clark, Gregory. 1996. "The Political Foundations of Modern Economic Growth: England, 1540-1800." *Journal of Interdisciplinary History* 26(4): 563-588.
- Clark, Gregory. 2005. "The Condition of the Working Class in England, 1209-2004." *Journal of Political Economy* 113(6): 1307-1340.
- Cook, Chris and John Stevenson. 1988. *English Historical Facts 1688-1760*. London: MacMillan.
- Cook, Chris and John Wroughton. 1980. *English Historical Facts 1603-1688*. New Jersey: Rowman and Littlefield.
- Coşgel, Metin M., Thomas J. Miceli, and Jared Rubin. 2012a. "The Political Economy of Mass Printing: Legitimacy, Revolt, and Technology Change in the Ottoman Empire." *Journal of Comparative Economics* 40(3): 357-371.

- Coşgel, Metin M., Thomas J. Miceli, and Jared Rubin. 2012b. "Political Legitimacy and Technology Adoption." *Journal of Institutional and Theoretical Economics* 168(3): 339-361
- Dowell, Stephen. 1884. *A history of taxation and taxes in England*. London: Spottiswoode and Co.
- Greif, Avner. 1998. "Self-Enforcing Political Systems and Economic Growth: Late Medieval Genoa." In (Robert H. Bates, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast, Eds.) *Analytic Narratives*, Princeton: Princeton University Press, pp. 23-63.
- Greif, Avner. 2002. "The Islamic Equilibrium: Legitimacy and Political, Social, and Economic Outcomes." Working paper, Stanford University.
- Greif, Avner. 2005. "Commitment, Coercion and Markets: The Nature and Dynamics of Institutions Supporting Exchange." In (C. Ménard and M. M. Shirley, Eds.) *The Handbook Of New Institutional Economics*, New York, pp. 727-88.
- Greif, Avner. 2010. "A Theory of Moral Authority: Moral Choices under Moral Networks Externalities." Working Paper.
- Greif, Avner, and Steven Tadelis. 2010. "A Theory of Moral Persistence: Crypto-morality and Political Legitimacy." *Journal of Comparative Economics* 38: 229-244.
- History of Parliament Online, http://www.historyofparliamentonline.org/. Last Accessed June 14, 2013.
- Hunt, Alice. 2008. *The Drama of Coronation: Medieval Ceremony in Early Modern England*. Cambridge: Cambridge University Press.
- Jha, Saumitra. 2010. "Financial Innovations and Political Development: Evidence from Revolutionary England." Working Paper.
- Kim, Hyojoung, and Steven Pfaff. 2012. "Structure and Dynamics of Religious Insurgency: Students and the Spread of the Reformation." *American Sociological Review* 77(2): 188-215.
- Lehmberg, Stanford E. 1970. *The Reformation Parliament: 1529-1536*. Cambridge: Cambridge University Press.
- Levi, Margaret and Audrey Sacks. 2009. "Legitimating Beliefs: Concepts and Measurements." *Regulation and Governance* 3: 331-333.
- Levi, Margaret, Audrey Sacks, and Tom Tyler. 2009. "Conceptualizing Legitimacy, Measuring Legitimating Beliefs." *American Behavioral Scientist* 53: 354-375.
- Lindert, Peter H. and Jeffrey G. Williamson. 1982. "Revising England's Social Tables, 1688-1812." *Explorations in Economic History* 19(4): 385-408.
- Mokyr, Joel. 1990. The Lever of Riches. Oxford: Oxford University Press.
- Nash, John. 1953. "Two-Person Cooperative Games." Econometrica 21(1): 128-140.
- North, Douglass C. 1981. Structure and Change in Economic History. New York: Norton.
- North, Douglass C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutional Governing Public Choice in Seventeenth-Century England." *Journal of Economic History* 49(4): 803-832.
- O'Brien, P.K. 1993. "Political preconditions for the industrial revolution," in *The Industrial Revolution and British Society* (P.K. O'Brien and R. Quinault eds.). Cambridge: Cambridge University Press.

- O'Brien, P.K. and P.A. Hunt. 2013. "Data prepared on English revenues, 1485-1815." Available at: http://esfdb.websites.bta.com/table.aspx?resourceid=11686, last accessed April 29, 2013.
- Pfaff, Steven, and Katie E. Corcoran. 2012. Piety, Power, and the Purse: Religious Economies Theory and Urban Reform in the Holy Roman Empire." *Journal for the Scientific Study of Religion* 51(4): 757-776.
- Pike, Luke Owen, 1894. *A Constitutional History of the House of Lords*. New York: B. Franklin. Pincus, Steven C.A., and James Robinson. 2011. "What Really Happened During the Glorious Revolution?" Working Paper.
- Powell, Ken E. and Chris Cook. 1977. *English Historical Facts 1485 -1603*. London: Macmillan. Quinn, Stephen. 2001. "The Glorious Revolution's Effect on English Private Finance: A Microhistory, 1680-1705." *Journal of Economic History* 61(3): 593-615.
- Rabb, Theodore K. 2011. *Investors and Members of Parliament in England, 1575-1630*. Ann Arbor: Inter-university Consortium for Political and Social Research.
- Rubin, Jared. 2011. "Institutions, the Rise of Commerce, and the Persistence of Laws: Interest Restrictions in Islam & Christianity." *Economic Journal* 121(557): 1310-1339.
- Rubin, Jared. 2013. "Centralized Institutions and Cascades." Working Paper.
- Rubin, Jared. 2014. "Printing and Protestants: an empirical test of the role of printing in the Reformation." *Review of Economics and Statistics*, forthcoming.
- Rubinstein, Ariel. 1982. "Perfect Equilibrium in a Bargaining Model." *Econometrica* 50(1): 97-110.
- Sinclair, J. 1803-04. The history of the public revenue of the British Empire. Containing an account of the public income and expenditure from the remotest periods recorded in history, to Michaelmas 1802. 3d ed. London: T. Cadell and W. Davies. 3 vols.
- Smith, David L. 1999. The Stuart Parliaments: 1603-1689. London: Arnold.
- Strong, Roy. 2005. Coronation: From the 8th to the 21st Century. New York: Harper.
- Sussman, Nathan, and Yishay Yafeh. 2006. "Institutional Reforms, Financial Development, and Sovereign Debt: Britain 1690-1790." *Journal of Economic History* 66(4): 906-935.
- Tawney, Richard H. 1926. *Religion and the Rise of Capitalism: A Historical Study*. New York: Harcourt Brace & Co.
- van Zanden, Jan Luiten, Eltjo Buringh, and Maarten Bosker. 2012. "The Rise and Decline of European Parliaments, 1188-1789." *Economic History Review* 65(3): 835-861.
- Wasson, Ellis. 2000. Born to Rule: British Political Elite. Stroud, UK: Sutton.
- Weber, Max. 1905. The Protestant Ethic and the 'Spirit' of Capitalism. New York: Penguin.
- Weber, Max. 1964 [1947]. *The Theory of Social and Economic Organization*, Talcott Parsons (ed.), New York: Free Press.
- Wells, John, and Douglas Wills. 2000. "Revolution, Restoration, and Debt Repudiation: The Jacobite Threat to England's Institutions and Economic Growth." *Journal of Economic History* 60(2): 418-441.
- Wood, Charles T. 1982. "Celestine V, Boniface VIII and the Authority of Parliament." *Journal of Medieval History* 8(1): 45-62.
- Young, Cristobal. 2009. "Religion and Economic Growth in Western Europe: 1500-2000." Working Paper.