

# Design and Evolution in Institutional Development: The Insignificance of the English Bill of Rights

Peter Murrell\*

December 13, 2009

## Abstract

A fundamental question in economic development is how societies first acquire a successful set of institutions. To examine this question, the paper focuses on a paradigmatic example, England in the years surrounding the Glorious Revolution of 1688. North and Weingast (1989) view the constitutional changes following 1688 as an explicit attempt to design a new polity, having the effect of radically altering the functioning of the English political and economic system. The rise of England as a world economic power followed. In contrast, Hayek (1960) views the late 17th century changes as simply summarizing what was already in existence, a product of experience accumulated through trial and error and selective survival of productive institutions, ideas, and habits. This paper argues that the English experience of institutional development cannot be described as creation by design. The rise of England fits Hayek's evolutionary perspective. This conclusion rests on three composite pieces of evidence. First, a search for structural breaks in myriad data sets reveals that socioeconomic change was under way well before 1688. Second, an examination of the historical context and institutional content of each clause of the critical laws shows either that the clauses were already a part of effective law by 1688 or that they did not survive as viable constitutional measures. Third, an analysis of institutional and administrative innovations shows that many key developments affecting government finance were a product of the era before 1688.

Keywords: Institutions, institutional development, constitutions, Glorious Revolution, design, evolution, Hayek, Bill of Rights

JEL Classifications: O1, N0, O52, K1, N43, N13, H1, P5, B31

\*Department of Economics, University of Maryland, College Park, MD 20742, USA.

email: murrell@econ.umd.edu

Lisa Dettling and Martin Schmidt provided terrific research assistance. For help in various ways, I would like to thank Boragan Aruoba, Roger Betancourt, Valentina Dimitrova-Grajzl, Allan Drazen, Peter Grajzl, Monica Kerekes, Ingmar Prucha, Stephen Quinn, Carmen Reinhart, Razvan Vlaicu, John Wallis, and Jing Zhang.

## 1. Introduction

Development is a process not an event. A central element of that process is the mechanism by which a country first begins to acquire a set of effective institutions. Crudely dichotomizing, two polar images of that mechanism appear in the literature. One employs the language of evolution and natural selection and views institutional development as the gradual accretion of large numbers of arrangements, some produced by focused reforms and others by serendipitous events, the current institutional profile being determined by the survival of arrangements that have worked in the past. The other mechanism is phrased in terms of conscious design, with the critical changes being implemented during brief bursts of reform concentrated at the highest levels of the institutional structure.<sup>1</sup>

Perhaps the most important contribution to the second perspective is that of North and Weingast (1989), who analyze the first successful development process, that of England.<sup>2</sup> The elements of the North-Weingast story are fourfold. First, by the beginning of the eighteenth century, the English government was sufficiently constrained in its powers that private initiative and enterprise flowered, uninhibited by fears of expropriation by a rapacious state. Second, the relevant constraints were primarily legal and were embodied in the highest levels of law, particularly the constitution.<sup>3</sup> Third, the decisive moments of constitutional change were in the years immediately following the Glorious Revolution of 1688, with the passage of the Bill of

---

<sup>1</sup> The distinction made here is very similar to that of Smith (2008) who refers to constructivist rationality, which is applied to individuals and organizations and involves the deliberate use of reason, and ecological rationality, the emergent order that is a product of human interactions not human design.

<sup>2</sup> Scotland and Ireland although under the same king as England, were not united with England until 1707 (Scotland) and 1800 (Ireland). England and Wales were united in the middle ages, with 'England' invariably used as shorthand for 'England and Wales' in seventeenth century history. Because this paper primarily refers to the period before 1701, 'England' is used.

<sup>3</sup> Hence, the North-Weingast approach fits squarely in a very strong intellectual tradition: "...constitutions and constitutional structures are the instruments through which reforms must be effected if ultimate improvements in patterns of political outcomes are to be expected" (Buchanan 2000 p. 1)

Rights of 1689 and the Act of Settlement of 1701.<sup>4</sup> Fourth, these constitutional developments were the product of design by forward-looking individuals who understood the ramifications of the new legal measures.

While taking no issue with the first of these four elements, that constraints on government were hugely important, this paper argues that the other three do not align with historical evidence. Instead, the process of development in England more closely matches the evolutionary view of Hayek (1960), who echoes a tradition going back to Smith, Hume, and, before them, the jurisprudence of the Common Law. In that tradition, institutions are accumulated as the result of trial and error and survival of the successful, with design of secondary importance. A workable structure is "...the sum of experience, in part handed from generation to generation as explicit knowledge, but to a larger extent embodied in tools and institutions which had proved themselves superior, institutions whose significance we might discover by analysis but which will also serve men's ends without men's understanding of them" (Hayek 1960 p. 60). The institutions of government and the rights of the English arose in a process spanning many centuries, which reached a culmination in the mid seventeenth century and bore fruit thereafter. In this tradition, the development of formal law was only one element in this process, the constitutional changes of 1689 and 1701 largely summarizing what was already in existence. At least as important as law were a common set of ideas on rights and on the nature of government, plus many lesser instruments and habits of governance.

The distinction between design and evolution is fundamental within economics, even if these two ideas are most often used implicitly and in various combinations. Smith (2008) also follows Hayek and uses the terms constructivist and ecological rationality for a similar

---

<sup>4</sup> Because of changes in the ways in which laws were dated, the Act of Settlement is sometimes labeled with 1700. This paper uses the modern dating method, which places the Act in 1701.

distinction, arguing that the interplay between these two concepts is fundamental in understanding economic systems.<sup>5</sup> The clearest recent practical example is undoubtedly the debate on the post-socialist transition, when the distinction between 'big-bang' and 'evolutionary' approaches became common, the advocates of the first claiming that a new system could be built completely and quickly by experts while proponents of the second posited that reform would be a gradual process of trial and error reflecting the existing state of institutions (Sachs and Lipton 1990, Murrell 1992, Roland 2000). Acemoglu et al. (2009) use a similar distinction when arguing that "The French Revolutionary armies imposed new and radically different institutions...and did so in extreme 'Big Bang' style" and that these radical institutional reforms were successful. Similarly, debates on the strategy and scope of development policy often center on the distinction between design and evolution (Sachs 2005, Easterly 2008), with Dixit's (2009) advice to policy-makers and experts on the building of governance institutions echoing elements of earlier evolutionary approaches. Likewise, the literature on the relative merits of transplanted and indigenous law points to a trade-off between quick imposition of a rigid design and slower adaptation to local circumstance (Posner 1998 pp.5-6, Grajzl and Dimitrova-Grajzl 2009).

The ideas examined here resonate with the burgeoning literature on the relationship between culture, institutions, and economic performance (Tabellini 2008, Guiso et al. 2009). That literature reaches into the deep historical roots of modern institutional performance, emphasizing the cultural origins of formal institutions and the complementarity of formal institutions and informal mores, conventions, and beliefs. This is a perspective consistent with Hayek's (1960, p. 62) emphasis on the "habits, tools and methods of doing things... rules of conduct... conventions and customs...unconscious patterns of conduct...habits and traditions". A central

---

<sup>5</sup> In so doing, he shows clearly that an emphasis on evolutionary processes at the systemic-institutional level is entirely consistent with an emphasis on design in producing impetus for institutional change.

message of the analysis below is that changes in political culture and lower-level institutions came before—and were more important than—constitutional change, a message highly complementary with that of the emerging economics literature on culture.

The purpose of this paper is to present evidence contrasting the North-Weingast and Hayek approaches to English history. This is not the first paper to subject North and Weingast to critical examination.<sup>6</sup> However, its point of departure is very different because of its starting point, the contrast between Hayek and North-Weingast. Its central focus is on the genesis of institutions not their effects; it is as much about the development of England before 1688 as after 1688. The existing literature concentrates squarely on the effects after 1688. In doing so, that literature accepts a hypothesis from North-Weingast that this paper does not accept, that the measures of 1689 and 1701 fundamentally changed the legal status quo.<sup>7</sup> This paper tests that hypothesis, finds it wanting, and therefore suggests that the search for effects of those measures would be understandably disappointing.

The evidence comprises three elements. Section 3 examines more than fifty individual socioeconomic data series spanning the years surrounding 1688-1701 and estimates the dates of structural breaks using the methods developed by Andrews (1993), Bai (1997), and Bai and Perron (1998). The objective is to examine whether structural breaks occurred in the years immediately following 1688 or before. The results show that the whole of the second half of the seventeenth century was a period of change in England, and the years following 1688 do not have any special characteristics. This is consistent with the approach of Hayek, which predicts

---

<sup>6</sup> See for example Clark (1996), Quinn (2001), Sussman and Yafeh (2006), and Wells and Wills (2008).

<sup>7</sup> Clark (2006, pp. 565, 571) expresses the strongest reservations on this score, emphasizing the security of property rights under English Common Law before 1688, but also refers to "the new constitutional order—the foundation of the modern British state".

gradual changes in socio-economic performance after 1660 with no reason to suppose that dramatic changes would follow the constitutional measures of 1689 and 1701.<sup>8</sup>

Section 4 focuses on the two highest level constitutional measures, the Bill of Rights and the Act of Settlement, examining the clauses of these measures *qua* legal instruments. If design were operative, then specific laws would be important, which suggests an examination of the genesis, the fate, and the precise contents of laws—a surprising omission from the economics literature. If legal measures had an independent and immediate effect, then their clauses would be innovative, lasting, precise, and readily applicable. In contrast, if the laws were simply a way station in the process of trial and error, many clauses would be restatements of existing practice or settled ideals, genial statements with little legal content. Others would be new and many of those would soon fail,. Section 4's examination of the historical context and institutional content of each clause of the relevant laws shows the pattern to be expected from evolutionary trial and error, a mixture of clauses with direct antecedents that survived and clauses that were innovative, a large proportion of which failed.

A weaker hypothesis on the effects of constitutional measures would be that they reinforce existing informal constraints, serving to make them more permanent because they are written in higher-order laws. Section 4's evidence also bears on this weaker hypothesis, although strictly speaking it is not one that truly distinguishes a Hayekian approach from that of North-Weingast. The evidence suggests that the Bill of Rights and the Act of Settlement did not play even this more limited role.

Section 5 examines the accretion of non-constitutional institutions pertinent to government finance, following North and Weingast's empirical focus on government borrowing.<sup>9</sup> This

---

<sup>8</sup> Hence, the empirical results and the Hayekian approach provide a means of interpreting the finding of Hausmann et al. (2005 p. 328) that "most growth accelerations are not preceded or accompanied by major changes in economic policies, institutional arrangements, political circumstances, or external conditions."

examination shows a continuous process of finance-relevant institutional innovation, before and after 1688. From 1640 to 1688, England fitfully and thoroughly modernizes its methods of taxing, spending, and borrowing. The fundamental legal developments, the practical institutions created, and the learning of those years were as important as anything occurring in the 1690's.

This last point is made explicit by focusing on the most significant failure of public finance before 1688, the Stop of the Exchequer, the partial moratorium on debt payments of 1672. When comparing the events of the 1670's and 1690-1715, it is clear that there is little difference in the solvency of state finance. England was closer to bankruptcy in the latter period than in the former, but there were no official moratoriums on debt. However, before 1688, Crown and Parliament were divided by fundamental differences over the nature of the English state. After 1688, the divide between them was small by comparison, removing repudiation of debt as a political strategy in their struggle. Laws and institutions were not the decisive element in distinguishing 1672 from 1690-1715.

Section 2 presents preliminaries that are essential for the interpretation of the evidence that follows. First, there is extended discussion of the interpretations of seventeenth century English history that Hayek and North and Weingast provide. This discussion brings to the fore the differences between the two approaches concerning their theories on the nature of institutional development. Second, some basic facts underlying relevant English history are presented, for the benefit of those readers unfamiliar with those events.

## **2. Interpreting the short seventeenth century**

The short seventeenth century is a staple of English history textbooks, beginning in 1603 when James I, the first Stuart monarch, acceded to the throne and ending in 1688 when William

---

<sup>9</sup> Some elements of the analysis of North and Weingast (1989) refer not only to the two major constitutional measures, but also other elements of the bargain between parliament and king on government finance.

III (husband of James' great-granddaughter, Mary) replaced James II (Mary's father) after a bloodless revolution-invasion, the Glorious Revolution. The intervening years were ones of continuous struggle between Crown and Parliament, over religion, foreign policy, finance, and, more generally, their relative roles in government. That conflict reached its height in 1642 with the outbreak of a civil war; took a break during the Interregnum of 1650-1660 when Parliamentary leaders failed to find a workable method of republicanism after the beheading of Charles I; simmered continuously after the return of Charles II in 1660; and was resolved in 1688 when three years of bungling by James II served to unite the country (including James' two daughters) in opposition. The coda came in the Bill of Rights of 1689 and the Act of Settlement of 1701, often referred to as centerpieces of the British constitution.

To Hayek the story of the seventeenth century was much longer than in canned histories. In medieval Europe, law was viewed as created by God with men simply discovering it. In later times, the continuing influence of this idea exerted a profound effect on political debate and the development of English law (H 163).<sup>10</sup> Thus, the medieval period bequeathed the ideal of the supremacy of law, which England permanently retained when it was lost elsewhere. It led to the belief, peculiarly strong in England, that new law should be sought in precedent. Thus, Magna Carta (1215) was very influential in seventeenth century struggles, being seen as the font of habeas corpus, trial by jury, and parliamentary constraints on taxation (H 163). Hayek viewed such rights as simply beliefs coordinating on compromises that resolved past struggles: Magna Carta was not a constitutional construction but a peace treaty between monarch and barons.

After the revival of classical scholarship in Elizabethan times, Greek and Roman ideas exercised great influence on English political thought (H 163). The popularity of the aphorism

---

<sup>10</sup> Because of the many references to Hayek (1960), a shorthand is adopted, (H 163) meaning Hayek (1960 p. 163).



'government by laws and not by men', which can be traced back to Aristotle, was a product of this revival (H 164-166). Roman legal ideas entered the mainstream of English thought, particularly the understanding that there is no conflict between law and freedom and that freedom relies on the constraints that law places on authority (H 167). This view of law paved the way for the decisive struggle between king and Parliament: "the demand for equal laws for all citizens became the main weapon of Parliament in its opposition to the king's aims." (H 167)

The role of history and precedent coevolved with the Common Law, whose central tenets limited the power of Parliament and king. For Hayek, the authority of the Common Law was fundamental in the institutional settlement that ruled the eighteenth century. Thus, democratic law-making could be arbitrary if it violated pre-existing principles of law, a view clearly contained in the Petition of Grievances of the House of Commons in 1610, restated in the Commons' publication of Coke's *Institutes* in 1624, settled within the parliamentary debates surrounding the Civil War, and reportedly stated by Charles I on the scaffold (H 168-170, 464). For example, in the Case of Monopolies (1602) monopolies were cast as a violation of the Common Law and an infringement on liberties (H 168). The beginning of modern law on competition relied not at all on democratic statute but on ancient precedent on liberties of the subject. It also had the incidental effect of helping to bring press freedom to England earlier than elsewhere (H 463)

A practical element in confirming the supremacy of law was the removal from the monarch of the power of interpreting and ruling on the law. To a large degree this had already been accomplished in the first half of the seventeenth century in the deference made to the Common Law and the substantial independence of its judges. But the king still had his own prerogative

courts. For Hayek, the landmark reform was the permanent abolishment of those courts in 1641, particularly the Star Chamber (H 169).<sup>11</sup>

The end of the prerogative courts was a key step in the establishment of the separation of powers, which also entailed the monarch's primacy in administration and Parliament's supremacy in legislation. Such separation had long been implicitly an element of practical governance, but in the two decades of civil war and interregnum it was formulated explicitly (H 170). By the time of the Restoration, the principle of the separation of powers was firmly established and from that time remained central in the governing political doctrine (H 170).<sup>12</sup> The same time period also saw the full acceptance of the principle that an action was to be considered arbitrary if it was not in conformity with pre-existing principles of law (H 169). Notably, neither Charles II or James II questioned this principle.

Interestingly, Hayek's history of the seventeenth's century's contribution to the "origins of the rule of law" stops at this point. "Out of the extensive and continuous discussion...during the Civil War, there gradually emerged all the political ideals which were thenceforth to govern English political evolution." (H 168) "All these ideas were to exercise a decisive influence during the next hundred years...in the summarized form they were given after the final expulsion of the Stuarts in 1688." (H 170) In the first half of the eighteenth century these ideas gradually penetrated everyday practice (H 171-2), as for example the "final confirmation of the independence of judges in the Act of Settlement of 1701" (H 171). But before that, before 1688, the convergence on political ideas had led to a permanent place for the decisive institutions, the

---

<sup>11</sup> Hayek's emphasis on this reform serves to refute the oft-repeated notion that he rejected all goal-oriented reforms. In fact his position was that such reforms had much error attached to them, that the process of ex-post selection was therefore important, and also that error was more likely the more overarching the reform. One of the ways in which trial and error occurs is by experiencing reforms produced by design.

<sup>12</sup> Hayek (H 465) goes as far as suggesting that Locke's philosophy of the role of law and the separation of powers summarized views held by lawyers during the Restoration.

Common Law, Habeas Corpus, Parliamentary control over taxation, trial by jury, and effective separation of powers (especially devolution to the local level).

In sum, Hayek saw the process of the development of English institutions as an evolutionary one with agreement on ideals as important as the creation of concrete structures. In this process "purposive institutions might grow up which owed little to design, which were not invented but arose from the separate actions of many men who did not know what they were doing... something greater than man's individual mind may grow from men's fumbling efforts [through] the emergence of order as the result of adaptive evolution" (H 58-9). Indeed, in the England of the seventeenth century, there was understanding of this process, particularly among lawyers imbued with the precepts of the Common Law. Thus, Hale, who served as a judge in both the Interregnum and the Restoration, could write of "...the difficulty of a present fathoming of the reason of laws, because they are the production of long and iterated experience which, though it be commonly called the mistress of fools, yet certainly it is the wisest expedient among mankind, and discovers those defects and supplies which no wit of man could either at once foresee or aptly remedy" (H 58). The evolutionary ideal embodied in the spirit of the Common Law helped to guide the process of institutional development in seventeenth century England.

North and Weingast start at the opposite end to Hayek—conceptually and temporally—in telling their "story of how these institutions *did* come about in England" (NW 831).<sup>13</sup> For them, "...the institutional changes of the Glorious Revolution permitted the drive toward British hegemony and dominance of the world" (NW 830). The "designers of the new institutions" (NW 804) were responsible for changes which "reflected an explicit attempt to make credible

---

<sup>13</sup> Because of the many references to North and Weingast (1989), a shorthand is adopted, (NW 831) meaning North and Weingast (1989 p. 831).

the government's ability to honor its commitments" (NW 804), through restrictions placed in the constitution (NW 805).

According to North and Weingast, three elements of governmental organization were problematic before the Glorious Revolution (NW 813). First, the royal prerogative allowed the King to ignore legislation. "Second, the Star Chamber, combining legislative, executive, and judicial powers, played a key role", "sometimes having the final word on the prerogative." (NW 813) Finally, the crown paid the judges, who served at its pleasure (NW 814).

The most important changes emphasized by North and Weingast are reversal of these three. The Glorious Revolution "initiated the era of parliamentary 'supremacy' " (NW 816), establishing explicit limits on the Crown's ability to act unilaterally (NW 804), "by requiring Parliament's assent to major changes in policies (such as changing the terms of loans or taxes)" (NW 817) Additionally, before the "...Glorious Revolution, institutions such as the Star Chamber enabled the Crown to alter rights in its favor...", (NW 829), but after the revolution such powers were "curtailed and subordinated to common law, and the prerogative courts (which allowed the Crown to enforce its proclamations) were abolished.<sup>14</sup> At the same time the independence of the judiciary from the Crown was assured. Judges now served subject to good behavior...The supremacy of the common law courts...was thereby assured." (NW 816)

North and Weingast especially emphasize Parliament's role in finance: "Parliament also gained a central role in financial matters. Its exclusive authority to raise new taxes was firmly reestablished; at the same time the Crown's independent sources of revenue were also limited." (NW 816) "...Parliament gained the never-before-held right to audit how the government had

---

<sup>14</sup> Because timing is an essential element of the empirical exercise, it should be noted that the Star Chamber was abolished in 1641, and there were no prerogative courts in the reigns of Charles II and James II.

expended its funds..." (NW 816). "...parliamentary interests reasserted their dominance of taxation issues, removing the ability of the Crown to alter tax levels unilaterally" (NW 819).

These new institutions not only increased the security of private rights (NW 804). "Because the Stuarts had violated the personal liberties of their opponents (excessive bail, no writ of Habeas Corpus)...reducing the arbitrary powers of the Crown resulted not only in more secure economic liberties and property rights, but in political liberties and rights as well" (NW 829).<sup>15</sup>

These two contrasting summaries of English history offer very different visions of the process of development and of the nature of institutional change in the English seventeenth century. The remaining sections of the paper examine which perspective matches historical evidence. But before turning to that exercise, it is necessary to add to the discussion a few facts, especially on the role of religion, which provided a subtext for all of the struggles between monarch and legislature.

The Tudors, the dynasty before the Stuarts, had led a Protestant reformation, with the monarch becoming the head of the Church of England. By the seventeenth century, Protestantism had taken a firm hold, with many 'dissenters' moving much farther from Catholicism than had the established Church. Catholics were a very small minority and were absent as a voice in Parliament. However, each successive Stuart monarch moved closer to Catholicism, Charles I and Charles II both having Catholic wives and James II openly declaring his adherence. In foreign policy, the Stuarts allied with Catholic nations, especially with the France of Louis XIV during Charles II's reign. In the early 1670's, Charles signed a secret treaty with Louis, which allied England with France against the Netherlands, provided Charles with funds to free him from Parliament's strictures, and committed him to convert to Catholicism at a

---

<sup>15</sup> The fundamental Habeas Corpus measure, the Habeas Corpus Act, was passed in 1679.

later date. Foreign policy, religion, and the power of Parliament were always intertwined in the seventeenth century.

During that time, the relationship between the King and Parliament could be characterized as a distinctive Stuart equilibrium. King and Parliament had very different goals on religion and foreign policy. Parliament used the power of the purse to restrain the monarch, who was continually strapped for cash. As a consequence, the relative roles of monarch and legislature took center stage. Charles I adopted an extreme position in the 1630's, when he tried to rule without Parliament, but was forced to retreat in 1640. Prerogative taxation had failed and funds were needed to quiet a rebellion in Scotland. The Long Parliament lasted from 1640 to 1660, through the civil war, the interregnum, and the Restoration of the monarchy in 1660. Then, the nation returned to the Stuart equilibrium under Charles II, with Parliament unwilling to provide adequate funds for a monarch whose aims were inconsistent with those of Parliament. The short reign of James II saw Parliament's biggest mistake, an early vote of adequate funding as a gesture of goodwill, giving James enough latitude to implement policies that fomented rebellion.

### **3. Structural breaks in a variety of socioeconomic data series**

This section examines empirical evidence on when change came to England. It uses the econometrics of unknown structural breaks to estimate the years in which breaks occur in many data series, to assess statistical significance and to obtain confidence intervals (Andrews 1993, Bai and Perron 1998, Hansen 2000). By using a large variety of data series, these methods provide a new descriptive picture of change in newly developing England.<sup>16</sup>

---

<sup>16</sup> Two previous papers bear some similarities to the present exercise. Wells and Wills (2000) use similar methods when examining post-1688 stock-market data. Their objective is to examine the North-Weingast hypothesis by analyzing whether breaks in stock market prices occur in reaction to an increased threat of the return of the Stuarts. Clark (1996) uses standard regression techniques to examine changes in rates of return during periods of turbulence, pre- and post-1688.

The two competing theories have very different implications about when change came. The North-Weingast hypothesis is one of large, significant change during or soon after the 1688-1701 time period. One would therefore expect to see a clustering of breakdates after 1688, and fewer before. The Hayek hypothesis is one of gradual development, with significant elements of change occurring earlier in the seventeenth century. One would therefore expect to see a spread of breakdates over the century surrounding 1700. These predictions are precise enough to differentiate between the two hypotheses, given a sufficient number of data series.

The first step in the analysis was to collect time-series data on as many phenomena as possible for the years surrounding 1700. Although such an inclusive search for data for any modern period would leave the researcher overwhelmed, this is not the case for seventeenth century England, given the specific time span and the requirement of having a sufficient number of yearly observations without missing values.<sup>17</sup> Nevertheless, the tests examine over fifty different data series. There are data on the obvious economic measures, such as production, factor returns, prices, and exchange rates, but also series on inventive behavior, literary activity, government, and judicial behavior.

Table 1 lists the features of the data sets. The most important criterion for inclusion was a sufficient number of observations surrounding and including 1688-1701. The lower limit was thirty relevant observations, or for decadal series twenty (since inclusion of observations outside the 17<sup>th</sup> and 18<sup>th</sup> centuries would involve other epochs). To the extent possible, observations were centered on 1700 and those from 1640 to 1760 were used. These years mark an era of great historical change, beginning with the seating of the Long Parliament, and ending with the death of George II, the last English monarch to be born outside the Kingdom. In order to include

---

<sup>17</sup> Series with a small number of missing values were accepted. Some decadal series are used where they cover important phenomena not measured in yearly data.

sufficient numbers of observations, the centering around 1700 was relaxed for series beginning after 1675. In those cases, in order to preserve a semblance of balance before and after 1700, the chosen end point was 1726 (the last full year of the reign of George I, the first Hanoverian).

The model is one of changes in mean values of either levels or growth rates:

$$\begin{aligned}y_t &= \alpha_1 + \varepsilon_t & t = 1, 2, \dots, k-1 \\y_t &= \alpha_2 + \varepsilon_t & t = k, k+1, \dots, T\end{aligned}$$

where  $y_t$  is the variable of interest,  $\alpha_i$  are its unknown mean values before and after the break,  $T$  is the length of the time series, and  $k$  is the unknown break point.

The venerable test for structural breaks is the Chow test, but it uses an *a priori* choice of hypothesized year. The present exercise has two hypotheses, which differ on when change occurred. The appropriate approach then is to estimate breakdates. The estimated break is the year that minimizes (over every possible breakdate) the sum of the residual sum of squares of two separate regressions, one each side of the break (Bai 1997; Bai and Perron 1998). The estimation of confidence intervals uses robust techniques, allowing for changing distributions of errors before and after the break and for autocorrelation in the error terms (Bai 1997).<sup>18</sup> The statistic for a significance test is the maximum of all the Chow F-test statistics calculated using each year in the series as a potential break (Quandt 1960; Andrews 1993).

One very difficult question is whether to use levels or rates of growth as the dependent variables for economic series. If the rise of England really did begin at this time, growth (i.e., real growth, inflation, etc) would show signs of change. Such a view is consistent with both North-Weingast and Hayek. However, growth rates have very high coefficients of variation in the relevant time period. These growth rates are often insignificantly different from zero on both

---

<sup>18</sup> In practice, allowing for autocorrelation does not change the average size of estimated confidence intervals but allowing error variances to vary across the breakdate does reduce average size.



sides of the break, implying low power for tests of significance of a structural break and wide confidence intervals. Levels variables have less variation and, as will be seen, lead to many more significant test statistics. But a one-time change in levels, without any permanent change in growth, is not what is usually meant by development: this is an unlikely theoretical framework to drive the tests. Perhaps tests on levels can provide information on breaks in growth.

If there is a non-zero growth rate and levels variables are integrated of degree one, the theory of Andrews (1993), Bai (1991), and Bai and Perron (1998) does not necessarily apply to estimates of breaks in levels. This does not mean that estimates following their methods are meaningless, but simply that the only theoretical underpinning is by analogy with the case where the theoretical results do apply.

What results would be likely when searching for breaks using levels variables when there is a structural break in growth? The literature contains only a few hints to answer this question and the search for a complete answer is well beyond the scope of this paper. However, an Appendix, which refers to theoretical results and presents simulations, provides a clear message. Given the characteristics of the data used in this paper and given the assumption of structural breaks in growth, tests for structural breaks on both growth and levels variables offer valuable information serving to differentiate the predictions of Hayek from those of North-Weingast. Indeed, the results of the simulations provide useful context to interpret patterns in the empirical results of this section. Moreover, if one simply views the results as simply supplying a detailed descriptive picture, the interpretation is crystal clear.

Table 2 lists the basic results. For each series, the null hypothesis is no break, and the alternative is a single break. The essential message of the analysis can be conveyed in a simple timeline, Figure 1. Four historical episodes are marked, 1649, the beheading of Charles I, 1660,

the restoration of the monarchy, 1688, and 1701. Series names are attached to the timeline at the estimated break-point of the series. They are bolded if the breakdate estimate is significant at the 10% level. Names appear in the upper half of the diagram if the values of the variable increase after the breakdate and in the lower half if there is a decrease. The strong impression from this Figure is that neither 1689-1701 nor the following time period is special in any way in terms of the intensity of change. If change is happening, it is no more intense after 1688 than before.

Of the 58 series, 32 have breakdates that are significant at the 10% level, powerful evidence that change is really happening. Figure 2 shows only the significant breakdates, conveying the same message on timing as Figure 1: change occurs both before and after 1688. Although significance is more prominent in levels than in growth variables, the Appendix shows clearly why this might be the case given the amount of noise in the growth data.

Of the 58 breakdates, 29 fall before 1688, with 13 of the significant ones doing so. Given the time periods covered by the data, only 16 breakdates (9 significant) would fall before 1688 if the placement of breakdates were purely random.<sup>19</sup> Only 18 breakdates fall into the 1688-1710 interval, whereas 18 would do so by random chance, an important observation since this interval should evidence most change if the constitutional measures had a dramatic effect.

Figure 3 displays confidence intervals, but also serves to emphasize the evenness of change over the entire time interval. For that Figure, the series are ordered by breakdate and evenly spaced on the horizontal axis in order of breakdates. The year of the breakdate is plotted on the vertical axis, together with confidence intervals. Nearly half of the estimated confidence intervals—25—end before 1688. The line traced out by the breakdates is as close to a straight

---

<sup>19</sup> Assuming that each year has an equal probability of providing the breakdate.

line over the entire time interval as one is likely to observe in a statistical process with as much noise as this one. This is the epitome of gradual change.

To this juncture, there has been no deliberation on whether the change is an improvement or not. To answer this question, examine four relatively homogenous sub-groups of the data series. Within each group, an improvement in outcomes results in all series changing in the same direction. Figures 4(a)-(d) show the results. For production, factor returns and intellectual activity, an increase is positive. For prices and inflation, the assumption is less obvious. Prices are generally increasing at the beginning of the time period, but later evidence stability or even some decline. Declines in growth rates of prices therefore signal greater monetary stability. Moreover, under a gold standard, prices generally move in the opposite direction to productivity changes (Bordo 2007).<sup>20</sup> Decreases in price variables signal improvement.

All four Figures 4(a)-(d) indicate that improvements were under way before 1688. It is noteworthy that the dates when a break marks adverse changes are largely after 1688 and not before. The directions of change in the series support the general hypothesis of a nation beginning the development process. This conclusion would be valid even if all breakdates were insignificant. When data are noisy, cumulative evidence from non-significant estimates can be informative.<sup>21</sup> This is the case if the estimates tend to point in the same direction, which they do in Figures 4(a)-(d). Indeed, the simulation exercises of the Appendix show that one could expect insignificance in the tests of structural breaks in growth given the levels of noise in the data used here. Hence, there is great value-added in using many data series and including even insignificant breakdates in the results, because many insignificant estimates pointing in the same direction provide very valuable information.

---

<sup>20</sup> Strictly speaking, at this time a bimetallic (gold-silver) standard.

<sup>21</sup> This is one of the basic insights of meta-analysis (Hunt 1997).

The only significant exceptions to the observation of general improvement are in government revenues, where declines in growth rates are observed (in 1673, 1690, and 1700 in the different series).<sup>22</sup> These break estimates are consistent with the observation that revenue generation was extremely robust during the Restoration and that growth rates fell from a high level. Perhaps, the decline in growth rates reflects the end of one-time gains in efficiency of tax collection, which came about as a result of those improvements in tax administration that are reviewed in Section 5.

Figures 5(a)-(b) separate the results for growth and levels, each providing the same message as in Figure 1. Of the 24 series for which both levels and growth rates are examined, sixteen have the break in growth appearing before the break in the level with the mean values of both series changing in the same direction. This pattern is the one to be expected when a slow growing economy undergoes change. Of those 16 cases, 8 are measures of production, factor returns, or inventive activity and 7 increase after the breaks. The exception is beer production, which decreases in the 1690's. Eight are price measures, 7 of which decrease. The exception is for wood, a commodity in inelastic supply whose relative price would increase if there were general improvements in economic activity.

There remains one further check on the results. The above uses the null of no break against the alternative of one break. Bai and Perron (1998, 2006) have developed theory and methodological guidelines when allowing for the possibility of more than one break.<sup>23</sup> First, a double-maximum test is used to check the hypothesis of no breaks against any positive number

---

<sup>22</sup> There were also declines in the growth rates of beer and spirits production, perhaps due to a new tax imposed on these commodities (Ranke, 1885, p. 74).

<sup>23</sup> Thanks are due to Monica Kerekes who provided the relevant software. See Kerekes (2008) for more details.

of breaks.<sup>24</sup> Second, if the double-maximum rejects the hypothesis of zero breaks then a sequence of Andrews-type F-tests are applied to test every single move to a higher number of breaks.<sup>25</sup> The process stops when the test rejects the addition of one more break.<sup>26</sup>

The results are given in Table 3, which lists the number of breaks found by this methodology and the years of the statistically significant breakdates.. When there are multiple breaks the years are listed in the order in which the testing procedure finds them. This means that the most important breaks in the series will be listed first.<sup>27</sup>

For 30 of the 58 series, the iterative procedure gives the same answers as before, that is multiple breaks are not found.<sup>28</sup> Of the remaining 28 series, 23 of the first breakdates are the same or close to those listed in Table 2. Of those 28, 12 have breakdates before 1688, indicating that the pre-1688 estimated breakdates are not more sensitive to the use of different methods than those after 1688.

Most of the series with estimated multiple breakdates are levels series. The multiple breakdates reflect cyclicity. Figure 6 provides an example, a scatter plot for Clark's index of pasture prices, which is one of the few series where the identified break date in Table 2 is not matched closely by an entry in the multiple break dates given in Table 3. The new set of breakdates in Table 3 reflects cycles, with an increase in 1647, a decrease in 1652, a further decrease in 1687, an increase in 1693, and an decrease in 1700. It is clear that a search for multiple breakdates serves to obfuscate the downward trend in the series that is evident in the

---

<sup>24</sup> The double maximum refers to the fact that for each given number of breaks the maximum test statistic is derived and then the maximum of those test statistics is used.

<sup>25</sup> The Andrews tests are generalized to allow for autocorrelation and differences in error variances across the break.

<sup>26</sup> The procedure includes iterative re-testing of breaks found in earlier stages of the procedure, examining whether these breaks are significant within regions defined by breaks that have been found subsequently in the process.

<sup>27</sup> Bai and Perron (1998 pp. 63-64) show that when there are multiple breaks the first break estimated is a consistent estimate of the most important break "in terms of the relative magnitude of the shift and the regime spells".

<sup>28</sup> If the procedure has zero breaks in Table 3, the first year that would have been found would be the same as the one in Table 2.

data from 1650 onwards and that is clearly identified by the estimates based on both growth rates and levels given in Table 2 and on growth rates alone in Table 3.

#### **4. Precedent and Survival in the Bill of Rights and the Act of Settlement**

The previous section's empirical approach establishes that there is nothing in usable data sources to suggest a structural break in development as a result of the 1689-1701 measures. This section examines why the Bill of Rights and the Act of Settlement would have had little direct and immediate effect. It uses the history of the individual clauses, *qua* legal measures, and examines whether that history should lead us to expect such effects. It is a further test of the theories of North and Weingast and Hayek against each other.

What would one expect to see in the historical record under each theory? For North-Weingast, the emphasis is on constitutional law, produced by design and reflecting an explicit attempt to give government credibility (NW 804-5). Following this emphasis, the legal clauses should be novel measures working together integrally, imparting immediate credibility, and avoiding the vagueness that would lead to future disputes. If credibility was present at the outset then the measures would have stood the test of time: there would be little evidence that specific clauses were limited in application or were fundamentally changed in the years following passage or were sufficiently vague as to foster immediate dispute.

For Hayek, the decisive factor was the political ideals emerging from history, which were summarized in the legal measures of 1689 and 1701, which themselves were elements of the ongoing process of institutional evolution (H 168-170). From this perspective, the constitutional laws would be a mixture of two types of clauses. First, these clauses would symbolically codify older measures that had previously passed the test of time and were in fact part of the law of the land. Such clauses would not be questioned after codification and would not require precision.

Second, there would be new measures, some surviving events soon after their passage, but others being substantially modified or repealed. The measures of 1689 and 1701 would constitute just one stage in an ongoing process of selection through trial and error.

The pertinent evidence is contained in two lengthy tables backed by extensive notes to sources. Table 4 focuses on the Bill of Rights and Table 5 on the Act of Settlement. These constitute the core evidence of this section with the text simply providing summary and commentary. The first column of each table contains the exact wording of the critical parts of each substantial measure. The second column examines whether the measure was an innovation by analyzing the history of the relevant area of law, *de facto* and *de jure*. The third examines whether the measure survived intact, whether it was violated in subsequent years, and whether it had sufficient precision to settle, rather than to foster, dispute.

A last column of each table contains commentary, much of which is elicited by North and Weingast's emphasis on property rights and government finance. In their interpretation, the two constitutional measures are seen as placing new explicit limits on the monarch, assuring the supremacy of the Common Law, and establishing the independence of the judiciary, all of which lead to the credibility of government debt repayment and protect citizens against arbitrary infringements of property (NW 804, 816, 819). In contrast, the historical record suggests that the struggle between monarch and Parliament from 1660 to 1688 centered on religion, not on property and taxation. The comments in the Tables therefore disentangle property and taxation issues from religious ones in analyzing precedence and survival.

Of the fifteen measures in the Bill of Rights, two were unarguably new, the requirement of parliamentary consent for a standing army and the rejection of James' Ecclesiastical Commission. William defied the standing army measure in the 1690's until it was enforced by

Parliament, which used its authority over taxation in exactly the way that it had in the disbanding process in the 1670's (Kenyon, 1986, pp. 363; Roseveare, 1973, 56). The measure on Ecclesiastical Commissions had no subsequent effect since it did not change the status of the monarch as head of the Church of England.

One clause extended previous requirements on government officials to the monarch (the mandatory oath to reject Catholicism). This was an endorsement of the nation's rejection of James and was of no consequence to William III, a Calvinist and the *de facto* monarch.

Nine of the measures have no novelty, while three more can be regarded as straightforward extensions of existing law. Of these three, one fixed loopholes in the Habeas Corpus Act of 1679 and one made a—very unclear—statement on the right to bear arms. The third rejected the power of the monarch to dispense (allow exceptions to) laws, a power that had been relevant only on religious issues in the time of Charles II and James II. Not surprisingly the survival rate of measures in the Bill of Rights is high, nine subsequently unquestioned and another six surviving but with some blemishes in application.

Eight of the measures had direct legal relevance to property rights or government finance, but in only one of these cases, the extensions to the 1679 Habeas Corpus Act, was there any novelty. Moreover, this clause, together with the rest of Habeas Corpus, was temporarily suspended a number of times in the following century, including within two months of the Bill's passage. Indeed, the Act of Indemnity after the first suspension was regarded as a much larger violation of Common Law property rights than any that had ever been committed by Charles II or James II (Crawford 1915 p. 629). In sum, it is simply impossible to characterize the Bill of Rights as providing either new legal protection of property rights or new defense against capricious (i.e. prerogative) taxation or new Parliamentary rights on taxation.



The Bill of Rights and the Act of Settlement were passed in very different circumstances. In 1689, a new monarch and Parliament were reaching accommodation in the face of a possible reversion to an old regime that had brought the nation to the brink of civil war. In 1701, the monarch and Parliament had dueled for twelve years, but the nation was much more secure. There was, however, the necessity of ensuring a Protestant succession. In securing the succession in the Act of Settlement, Parliament included measures reflecting some pique. The Act was thus a mixture of the new and the old.

Of the nine distinct measures in the Act of Settlement, five were new, two were old, and two reflected much historical precedent while formally being new. Of the five truly new measures, four did not survive, the exception being restrictions on the holding of government office by naturalized citizens. The case for immediate credibility of the Act of Settlement is therefore not strong. This point is surely strengthened by noting that survival of two of ineffective measures would have made impossible the gradually evolving form of Prime Ministerial and Cabinet government.<sup>29</sup>

Only three of the measures have direct legal relevance to the issues of property rights or finance, one not new (monarch cannot impede impeachment) and one new but soon vitiated (monarch's employees banned from Commons).<sup>30</sup> From the Bill of Rights and the Act of Settlement together, therefore, there is just one clause that was formally new, survived intact, and had large relevance to property and government finance, the requirement that judges were to serve *quamdiu se bene gesserint* (on good behavior). This was already standard practice for William, but not a part of formal law.

---

<sup>29</sup> The two measures were publicity of Privy Council proceedings and the ban on government ministers serving in the Commons.

<sup>30</sup> One of the measures that reflected much historical precedent while formally being new was the requirement that the monarch, the head of the Church of England, participate in its rites.

It is difficult to make the case that the clause on the tenure of judges had a powerful effect *qua* legal measure. A succession of rulers had accepted the practice of tenure of judges on good behavior, sometimes under pressure of Parliament—Charles I after 1641, Cromwell for the duration of the interregnum, Charles II until 1672, and then William throughout his reign. Thus in fifty-seven of the seventy years before the Act of Settlement, rulers had appointed judges on good behavior.<sup>31</sup> The reason why it was abandoned by Charles II in 1672 and James II throughout his reign had little to do with property rights or government finance, but rather because of the desire to dispense religious laws.

When the Act of Settlement was passed this clause was not due to become effective until the death of Anne (which turned out to be in 1714) and in the sixty years following the Act all judges commissions expired on the death of a monarch, whose successor could choose not to reappoint them. This occurred in 1702, 1714 and 1721. Judges salaries were not separated from the King's own finances until 1761. Indeed William had rejected a 1692 bill that was equivalent to the clause in the Act of Settlement simply because Parliament was not willing to move judge's salaries from the King's account to the nation's, not because of the effect on judges' decisions.

One element of Section 3's analysis of breakdates provides evidence on whether the Act of Settlement affects judicial behavior. The newly developed Old Bailey Proceedings Online (2009) provide the data. The relevant element of Table 2 focuses on property crimes since these are the elements of the data most relevant to this paper's subject matter. The severity of punishment for property crimes increases dramatically in 1718 (Figure 7). Why this year? The Transportation Act was passed in 1718, reflecting concern about crime and insurrection (Beattie 2001 p. 256). This Act, a product of governmental, not Parliamentary, initiative, facilitated

---

<sup>31</sup> Once appointed on good behavior, a judge's commission could not be changed at the King's pleasure.

punitive transportation to the colonies. The judiciary, under the direct tutelage of government officials, embraced the new possibilities, with severe punishments rising dramatically (Beattie 2001 p. 432). Hence, judicial behavior on sentencing changed because of focused initiative by the government. In fact, judges were gradually becoming more lenient in their punishment of property crimes for 16 years, with a trend the same before and after 1701 (Figure 7). The conclusion is that judicial behavior was highly responsive to an interventionist government, even after the implementation of the independence clause of the Act of Settlement. Moreover, judges themselves did not evidence any behavior consistent with greater protection of property rights.

On matters of corruption, Prest (1991 p. 82, 85) concludes that "Although the Act of Settlement undoubtedly had (and retains) considerable symbolic importance, its significance as a watershed in the institutional and moral history of the judiciary is over-shadowed by events during the middle decades of the seventeenth century .....In so far as judges became more scrupulous after 1701, the prime explanation lies in long-term changes, of which the Act of Settlement's provisions on judicial tenure were less a cause than a symptom." When examining the political role of circuit judges, Cockburn (1972 pp. 258-261) concludes that they were used to further the Crown's goals in much the same way after 1688 as before and that the mundane reform of the introduction of printed orders in 1715 was important in reducing the political content of judges' instructions. The important point distinguishing judicial conduct under the Stuarts from that after the Revolution was the relative calm of politics "in the climate of comparative harmony between Crown and Parliament...the unresolved constitutional issues of the seventeenth century were able to evolve" Cockburn (1972 p. 260). A similar conclusion will appear in Section 5, when examining financial episodes before and after 1688.

A different perspective on the Bill of Rights and the Act of Settlement uses the lens of standard constitutional theory. In that theory, constitutional laws have three features. They are the highest order set of institutions for a polity; they provide rules defining the nature, processes, powers, and duties of a government; and they protect rights from incursions by the majority (Buchanan 2000, Elster, Offe, Preuss 1998, Elster 2000). In a more controversial claim, but one relevant here for obvious reasons, Weingast (2005) views a constitution as providing a focal point for assessing sovereign behavior, the violation of which leads to a united opposition.

The glaring problem in analyzing England from the standard constitutional perspective is that nothing in the constitution of England prevented Parliament (with the monarch's assent) from reversing any previous act. No super-majority was required: from a strictly legal perspective no Act of parliament was of higher order than any other.<sup>32</sup> As many critics of English government pointed out in the late eighteenth century, the King in Parliament verged on absolutism. In the eighteenth century, the formal law was that simple majority votes of both Houses and the monarch's assent were sufficient to over-ride any judicial review. To be sure some Common Law rules were regarded as sacrosanct in practice, but no constitutional law made this so. To the extent that Parliament could be restrained by the judiciary, the basis was in tradition, a tradition that had developed through trial and error over time. This is Hayek's constitution of liberty.

The Bill of Rights and the Act of Settlement did little to define the nature, processes, powers, and duties of the government. Electoral rules are elsewhere; the Habeas Corpus Act was passed in 1679; the various Triennial Acts set the legal limits on the ability of a monarch to ignore Parliament; the relative roles of government and the Common Law are ignored. This list

---

<sup>32</sup> It is often assumed that the requirement of a super-majority for amendment is what separates a constitutional law from all others (Elster 1995 p. 211).

could proceed *ad infinitum*, but a reading of Tables 4 and 5 is sufficient to establish that the Bill of Rights and the Act of Settlement did little to define the nature of government. Indeed, as noted above, the Act of Settlement potentially stood in the way of England's evolving structure of governance. It was the clauses of the Act that gave way, not evolving practice.

The modern observer would see irony in the name of the Bill of Rights. Its most innovative measure in a legal sense, and one that is still operative now, was to exclude Catholics from the monarchy. This was strengthened in the Act of Settlement, which forced the monarch to participate in the rites of the Church of England. Another clause in the Act weakened the rights of naturalized citizens, so that they could not play any role in government. A measure in the Bill of Rights restricted the right to bear arms to Protestants. Nothing in the Bill and the Act added anything to strengthen the rights of English citizens and several clauses diminished those rights.<sup>33</sup>

Weingast (2005) views a constitution as providing a focal point for citizen coordination against ruler transgressions. In fact, the Petition of Right of 1628 and the subsequent episodes of civil war had already provided the line in the sand. James II tested this hypothesis. With the hypothesis accepted by James' two daughters in 1688, it passed at any conventional level of significance. The political ideals settled earlier in the century provided the focal point, as Hayek emphasizes. Nonetheless, one might argue that explicit statements would provide more precision. But the Bill and the Act did not offer precision: "Parliaments ought to be held

---

<sup>33</sup> And the restrictions on certain rights were very serious. "Mathew Atkinson...after the 25th of March 1700...unlawfully and wickedly, and after the manner of the Church of Rome, one Elizabeth Rich of her Sins did Absolve, and pronounced her Absolved." and was sentenced to life in prison. (Old Bailey Proceedings Online, 2009)

frequently"; "That election of members of Parliament ought to be free"; "Protestants may have arms for their defence suitable to their conditions and as allowed by law".<sup>34</sup>

There is also a weaker claim, that constitutional measures might reinforce existing informal constraints: perhaps, a formal statement in higher-order laws increases credibility and permanence and provides a signal of importance. Such laws might provide a bulwark against threats to informal constraints that occur as circumstances change. This, in fact, is not a point made by North-Weingast and it is not inconsistent with Hayek's perspective. Nonetheless, it is easy to show that it has no significance in the immediate context of the Bill of Rights and Act of Settlement.

The relevant evidence has already been presented. Legally, the Bill and the Act were not higher order laws. This became clear very soon after the passage of the Bill when Habeas Corpus was suspended at a stroke, which can hardly have strengthened credibility and permanence. The standing army issue was not settled by evidence of violation of a precise law but rather by the time-honored means of Parliament's command over finances. The statement of the right to bear arms contained a reference to ordinary laws. One hundred and sixteen subsequent statutes eviscerated the restriction that servants of the Crown could not be members of the House of Commons. Tables 4 and 5 are replete with similar facts that show that explicit statements in the Bill of Rights and the Act of Settlement did not produce an effect over and above informal acceptance, at least in the decades following their passage.

Of course, many years after their passage, the Bill and the Act acquired great symbolic significance that strengthened the force of their provisions. But this is irrelevant to current concerns. Indeed, if duration results in greater symbolic importance and therefore more

---

<sup>34</sup> The ambiguity of one clause of the Act of Settlement could easily have caused a crisis in 1715 had political circumstances been different. As Table 5 explains the following statement is very imprecise: "That no pardon under the Great Seal of England be pleadable to an impeachment by the Commons in Parliament."

effectiveness, the whole logic of constitutionalism is reversed. The constitutional measures are not important because of the precision that they give to law but their survival over time leads to their autonomous effect. This seems to be thoroughly consistent with Hayek's perspective.

In sum, Tables 4 and 5 provide strong evidence that the Bill of Rights and the Act of Settlement comprised mostly old measures that survived and new measures that did not. The few measures that were innovative and survived were not relevant to property rights or government finance, but rather focused on religion. A long process of trial and error over the seventeenth century led to the institutions that determined the functioning of government in Britain in the eighteenth century as it related to economic matters, not the legal clauses of the Bill of Rights and the Act of Settlement. Of course, the religious settlement in the Bill and the Act could have had a large effect on economic issues, by ensuring that the polity would not become dysfunctional via religious struggles between the monarch and Parliament, as was the case in much of the seventeenth century. But this is a very different story than one which emphasizes constitutional limits on the economic and financial powers of the crown.

## **5. The Development of Institutions Relevant to Debt and Default**

Government finance provides the major empirical evidence used by North and Weingast to argue for the effect of the new institutional environment produced by the Glorious Revolution. To be sure, as the eighteenth century progressed the nation was able to borrow much larger sums at much lower rates of interest than ever before. However, existing empirical evidence suggests that the exact effects and the precise timing of change are open questions (Quinn 2001, Sussman and Yafeh 2006).

North and Weingast attribute the improved performance in governmental borrowing both to constitutional measures and to new, lower-level, institutional arrangements implemented during

the 1690's. Their claim is that the 1689 and 1701 constitutional measures initiated the era of Parliamentary supremacy, making Parliament the exclusive taxing authority, curtailing the crown's prerogative powers, and assuring the independence of the judiciary from the Crown (NW 816). The lower-level institutional changes consisted of Parliamentary auditing of governmental expenditures, the establishment of the Bank of England, the recoinage, and the earmarking of taxes to pay specific debts (NW 816, 820).

The previous section established that the Bill of Rights and the Act of Settlement did nothing to change the status of Parliament as the exclusive taxing authority or to change the King's prerogative powers on issues of government finance and property. *De facto* and *de jure* Parliamentary supremacy on taxation was a given well before the middle of the seventeenth century (Maitland 1931 p. 180, Wheeler, 1999). Charles II and James II did not claim any prerogative on tax issues (Schwoerer 1981 p. 66-69) . The Act of Settlement provided only symbolic significance for the tenure of judges, since it did not change the status of judges sitting at that time, since appointment on good behavior was already standard practice, and since dismissal of judges on the death of a monarch was still legal. Judges were still paid by the crown (and their litigants!) after 1701.

There is a better case to be made that the non-constitutional changes of the 1690's were of significance in improving the credibility of England as a sovereign borrower. The establishment of the Bank of England and the recoinage were landmark events. However, there were also many changes in finance-related institutions before the 1690's. Restoration England was a nation modernizing its governmental administration of finance, learning from trial and error, and importing ideas from the Dutch, the most successful sovereign borrower of the time. The accumulation of the important institutions of governmental finance was a gradual process,



occurring before and after 1688. The perspective of Hayek provides a fitting description of this process. The accumulation of financial institutions and the period of learning that accompanied that accumulation provide an example of the process of trial and error and "selective elimination of less suitable conduct." (H 26). The "habits, tools and methods of doing things,...rules of conduct,...conventions and customs" were developed both before and after 1688 (H 62).

The additional evidence for this argument is presented in two steps. First, the pre-1688 development of finance-relevant institutions is reviewed, depicting the large steps in legal and organizational arrangements that had occurred before the Glorious Revolution. Second, episodes of default and near default before and after 1688 are examined, showing that the first two decades after 1688 were very similar to those before. The divide between the two periods in this respect was not on whether the government ran into difficulty in paying its debts. The difference lay solely in the political relationship between King and Parliament, which produced a fundamentally different stance on whether default was acknowledged or not.

### *5.1 Development of institutions relevant to government finance*

Table 6 presents the historical record of pre-1688 institutional changes in governmental financial arrangements. This Table constitutes the core of the evidence in this subsection, together with comprehensive references to sources. The following text provides summary and commentary.

The first rows of the Table lay out the progression toward Parliamentary supremacy on taxation. By the end of the fourteenth century, the issue was settled as a matter of law. The early fifteenth century saw the superiority of the Commons over the Lords in the form of the rule that all finance bills must originate in the Commons. In 1671, the Lords lost the right of amendment. Independent sources of revenue gave the Crown some freedom from Parliamentary

strictures up to Tudor times. These revenues were declining, however, and the Stuarts were always dependent on Parliament for the funding of large parts of ordinary expenditures. This was acknowledged by James I as early as 1610 in the 'Great Contract', the failure of which left the Crown ever more dependent on Parliament or on dubious sources of revenue.

The great test of prerogative taxation was the collection of Ship Money during Charles I's personal rule in the 1630's. Charles won the legal battle on this issue, *Hampden's case*, by a slim majority of judges. *Hampden's case* did not rest on a matter of law—in this respect Charles was on solid ground, Ship money was legal—but rather on a judgment of fact, whether the nation was at peril, allowing the monarch to resort to this form of extraordinary taxation. But the law was not the most significant factor. The attempted collection of Ship money was a failure, there being too much local resistance, on the part of both taxpayers and tax collectors, because Parliament had not sanctioned the tax (Langelüddecke 2007). At the local level, the "rules of conduct,...conventions and customs", emphasized by Hayek (62), were dispositive. The informal convention was later made law by the Long Parliament.

The Long Parliament made many changes that were not reversed. An excise tax was introduced as was a tax on property—the assessment, later to become the Land tax. Customs became a Parliamentary tax. These measures ensured that the King was dependent on Parliament for revenues to run the Kingdom in ordinary times, giving Parliament an even stronger voice in times of war.

The reign of Charles II was marked by many developments in the management of taxation and debt, which are listed in Table 6.<sup>35</sup> On the organizational side, the most significant was the rise of the Treasury, the most powerful government department for the next three centuries, the

---

<sup>35</sup> Carlos, Neal, and Wandschneider (2006) argue that transferability of debt was critical. This was always possible under Common Law and was made somewhat more practical in the 1660's and 1670's, but in the following decades transferability was aided by ever more practical new methods.

overlord of the flow of revenues and expenditures (Roseveare 1969, 1973). The status of the Treasury was symbolized by the fact that its First Lord began to be called the Prime Minister in the early eighteenth century, the culmination of a modernizing process begun by George Downing in the 1660's.

On the legislative side the role of Parliament was inexorably increasing in all matters of government finance. The funding of debt began, with Parliament guaranteeing repayment by earmarking specific taxes for specific debts. The medieval principle of appropriation was revived, meaning that Parliament began to dictate exactly where funds were to be used. The most dramatic example of this was in the late 1670's when Parliament passed very detailed controls on the use of funds for the disbanding of the army. Parliament insisted on the monitoring of the use of expenditures by its own officials, to ensure that funds dedicated to the payment of debts were used appropriately.

In sum, the improved procedures for public finance and debt management in the 1690's were largely the consistent application of measures that had been fitfully applied in the time of Charles II. Parliament and government departments had learned much in the preceding decades, with the consequence that the post-1688 decades could take advantage of that learning. By the time of William, a powerful Treasury had been through two decades of modernization and had won increasing control over the nation's finances. Undoubtedly, the addition of the Bank of England and the recoinage were fundamental to English success, but other institutional changes in the 1690's can be seen as simply building on the work of the previous years. "In all essentials the foundations of the 'fiscal state' occurred before, not after, the Glorious Revolution." (O'Brien 2002 p. 32)

## *5.2: The political context of default before and after 1688*

Fiscal progress during the Restoration was marred by one specific episode, the Stop of the Exchequer in 1672, on which North and Weingast focus. The following paragraphs argue that the Stop was partly a consequence of administrative weaknesses and partly a reflection of the political economy of the reign of Charles II. No doubt the Stop did great damage to the King's credit at the time. But it was not a reflection of fundamental institutional failures. The Stop itself revealed the administrative weaknesses and provided a natural corrective in the learning that followed. If politics had been the same in the eighteenth century as in the seventeenth, another Stop would have occurred.

Parliament had voted Charles II funds for the length of his reign but these were not adequate, especially given Charles' foreign policy, which included wars against the Dutch. Charles' alignment with the Catholic Louis XIV, resonated with an increasing suspicion that his preferences lay with Catholicism.<sup>36</sup> The fact that Parliament refused to fund Charles adequately might therefore be interpreted as an indication of a healthy institutional structure, an unpleasant equilibrium perhaps, but better than alternatives given the tastes of monarch and people.<sup>37</sup> This was how Parliament maintained its voice in foreign policy and religion.

In 1665 Parliament voted wartime aid that allowed the King to borrow on the basis of the promised revenues, introducing a mechanism that designated specific revenues to pay specific debts. This was the beginning of the funding of debts. The resulting system of Treasury "orders", the promises to pay, which could be traded, proved to be very successful. So successful in fact that the Treasury extended the order system to debt based on general revenues.

---

<sup>36</sup> Charles' brother, the future James II, became more open in his adherence to Catholicism, but Charles' own disposition was never explicitly revealed until his deathbed conversion.

<sup>37</sup> When Parliament made the mistake of funding James II adequately in 1685, the nation was led to crisis and near civil war.

Such debt was not backed by specific Parliamentary guarantee or by dedicated revenues. As a result the number of orders was not limited (Dickens 1967 p. 43; Carruthers 1996 p. 62).

By the early 1670's Parliament had grown much more wary of Charles and refused his entreaties for extra funding. Religion, finance, and foreign policy were intertwined. In 1672, Charles issued his Declaration of Indulgence (see Table 4), joined Louis XIV in attacking the Dutch, and ordered the Stop to free up revenues to pay for the war. He hoped that victory would lead to wartime financial gains, eventually allowing reversal of Stop. This was a multi-pronged gambit, a foreign, political, and financial strategy that Charles hoped would loosen Parliament's tethers (Carruthers 1996, 122). It failed and the Stop did lasting damage to Charles' credibility.

The Stop was a moratorium on payment on only the orders that were backed by general revenues (Dickens 1967, p. 44). The orders backed by explicit Parliamentary guarantees were paid in full and all other elements of the government's credit operations functioned smoothly, as they did for the remainder of Charles' reign (Dickens 1967, p. 44). The Stop was a learning experience for the creditors and managers of government debt alike. Creditors saw that Parliamentary support for debt was crucial. The functioning of the Order system was improved. "At the technical level the Stop showed that plans against the revenue must be more carefully laid, and must include adequate reserves for payment. These lessons were duly noted by the Statesmen of the 1690's..." (Dickens 1967, p. 45).

Although the Stop was a huge dent in Charles' credibility, it did not indicate any dysfunction in the fundamental legal institutions of the country that could be solved in the near term, or even in the eighteenth century.<sup>38</sup> Good institutions can produce unsatisfactory equilibria when the aims of political actors are irreconcilable and failed gambles occur. That in fact is an

---

<sup>38</sup> The courts were irrelevant to the immediate situation since the doctrine of sovereign immunity meant that the King had to give permission to be sued.

intrinsic character of good institutions. But the experience of these unsatisfactory equilibria might provide lessons for the future: all now understood that the King could not undertake great adventures without the consent of Parliament.

The relationship between monarch and Parliament is primarily what distinguished the two decades after the Glorious Revolution from the previous two decades. Whatever their differences, William and Parliament, and then Anne and Parliament, understood that there was not enough separating them to allow official financial default even though the nation's finances were in a parlous state.

Although the fiscal capacity of the nation was expanding fast under William, so were needs. First there were revolts in Ireland and Scotland, then the Nine Years war until 1697, and finally the war of Spanish succession from 1701 to 1714. During this time, the nation's ability to balance its books was quite often worse than it had been under Charles. There was delayed payment, non-payment, and default, but no formal suspension or moratorium on debt payments.

The unplanned accumulation of debt began as soon as William took power, with official salaries heavily in arrears and deep discounts on tradable debt instruments (Horwitz 1977 p. 93). Parliament voted expenditures before considering how they would be paid. By 1694, the navy could not obtain supplies because the government was so behind on previous payments (Jones 1988 p. 11). As the situation worsened, the Bank of England, which had been pressured by the Treasury to borrow on the continent to pay the army, defaulted on its bills lacking the promised payment from the Treasury. This resulted in foreign credit markets drying up and the army not being paid for several months (Jones 1988 pp. 21-26). At one point, the personal assurances of William were necessary to obtain credit: William's Dutch backing apparently had more standing than the English Parliament. In 1697, a large volume of payments on short-term debts had to be

delayed (Dickens 1967, p. 52). Since some foreign creditors were never made whole, this amounted to an implicit repudiation of debts (Jones 1988 p. 84). Debt servicing was continually patchy and payments of both principal and interest uncertain. All of this was reflected on the discounts on government debt, reaching 35%-40% (Dale 2004, pp. 22-3; Dickens 1967, p. 34). Ten funds backed by specific indirect revenues were insufficient for the matching debts. But in contrast to the years immediately after the Stop, Parliament did not show disinterest. It voted a general fund to ensure to forestall a general default.

Similar events occurred during the War of the Spanish Succession (Carruthers 1996 79). In 1702, a large volume of payments on short-term debts were postponed (Dickens 1967, p. 47). Spending departments, especially the Navy issued debt instruments with little control from the Treasury, which meant that Parliamentary backing was only implicit (Dale 2004, pp. 22-3; Dickens 1967, p. 404). Parliament was forced to resort to medieval tactics: in 1708, the Commons resolved that any actions that served to lessen the public credit would be guilty of a high crime and misdemeanor (Luttrell p. 281). Navy and Ordnance Bills sold at a heavy discount in 1709 and 1710 with payments generally being several years in arrears (Carruthers 1996 p. 152) and discounts at 32 percent (Dale 2004, pp. 41). In 1711 these debts were subscribed to the South Sea Company but even in 1715 interest was six months in arrears (Dickens 1967, pp. 81, 404).

In sum, English government debt was just as insecure in the years immediately following 1688 as it had been before. But both Parliament and Crown had the incentive to join together and avoid explicit repudiation or a moratorium. After 1720, with the years of experience of the new financial reforms of the seventeenth century, with the Protestant succession secured, and with Louis XIV no longer a danger, the new Kingdom of Great Britain had both the

governmental capacity and the political economy to provide great security to creditors. But that governmental capacity was as much a product of the reign of Charles II as of William III.



## REFERENCES

- Acemoglu, Daron, Davide Cantoni, Simon Johnson and James A. Robinson (2009). "The Consequences of Radical Reform: The French Revolution," NBER Working paper #14831.
- Adams, George Burton and Henry Morse Stephens. (1916) *Select Documents of English Constitutional History*. New York: MacMillan.
- Allen, Robert C. (1992). *Enclosure and Yeomen: Agricultural Development of the South Midlands, 1450-1850* Oxford: Clarendon Press. Data can be accessed online at <http://www.nuffield.ox.ac.uk/general/members/allen.aspx>
- Allen, Robert C. (2001). "The Great Divergence in European Wages and Prices from the Middle Ages to the First World War" *Explorations in Economic History* 38: 411-447. Data can be accessed online at <http://www.nuffield.ox.ac.uk/general/members/allen.aspx>
- Andrews, Donald W.K. (1993). "Tests for Parameter Instability and Structural Change with Unknown Change Point." *Econometrica*, 61(4):821-56.
- Apostolides, Alexander, Stephen Broadberry, Bruce Campbell, Mark Overton, and Bas van Leeuwen. (2008). "English Gross Domestic Product, 1300-1700: Some Preliminary Estimates" Working Paper.
- Bai, Jushan. (1997). "Estimation of a Change Point in Multiple Regression Models." *Review of Economics and Statistics*. 79(4):551-563.
- Bai, Jushan. (1998). "A Note On Spurious Break." *Econometric Theory*, 14, 663-669.
- Bai, Jushan and Pierre Perron. (1998). "Estimating and Testing Linear Models with Multiple Structural Changes." *Econometrica*. 66(1):47-78
- Bai, Jushan and Pierre Perron (2006) "Multiple Structural Change Models - A Simulation Analysis" in *Practice: Frontiers of Analysis and Applied Research* ed. Corbae, Dean, Steven N. Durlauf and Bruce E. Hansen. 212-240. Cambridge: Cambridge University Press
- Beattie J.M. 2001 *Policing and Punishment in London 1660-1750. Urban Crime and the Limits of Terror*. Oxford: Oxford University Press.
- Black, Stephen (1976) "Coram Protectore: The judges of Westminster Hall under the Protectorate of Oliver Cromwell," *The American Journal of Legal History*: 32-64.
- Blackstone, William (1769) *Commentaries on the Law of England, Vol. 4 Of Public Wrongs (1769)* facsimile edition with introductions by Thomas A. Green (1979). Chicago: University of Chicago Press.
- Bogart, Dan and Gary Richardson. (2008) "Estate Acts, 1600 to 1830: A New Source for British History" NBER Working Paper 14393.

Bordo, Michael, John Landon-Lane and Angela Redish. 2007. "Deflation, Productivity Shocks and Gold: Evidence from the 1880-1914 period." Rutgers University.

Broadberry, Stephen and Bas van Leeuwen. (2008). British Economic Growth and the Business Cycle: Annual Estimates" Working Paper.

Buchanan, James. 2000. "Why do constitutions matter?" in *Why constitutions matter*. Eds. Niclas Berggren, Nils Karlson, Joakim Nergelius. Stockholm: City University Press.

Carlos Ann, Larry Neal, and Kirsten Wandschneider. 2006. "The Origins of National Debt: The Financing and Re-financing of the War of the Spanish Succession." Presented at the IEHA annual meetings, Helsinki.

Carlos, Ann M, Jennifer Key and Jill L Dupree. "Learning and the Creation of Stock-Market Institutions: Evidence from the Royal African and Hudson's Bay Companies, 1670-1700." *The Journal of Economic History* 58(2):318-344.

Carruthers, Bruce G. (1996) *City of Capital: Politics and Markets in the English Financial Revolution*. Princeton: Princeton University Press.

Charles II, 1678: (Stat. 2.) An Act for the more effectually preserving the Kings Person and Government by disabling Papists from sitting in either House of Parlyament.', *Statutes of the Realm: volume 5: 1628-80* (1819): 894-896. <http://www.british-history.ac.uk/report.aspx?compid=47482> (Accessed July 9, 2009)

'Charles II, 1679: An Act for the better securing the Liberty of the Subject and for Prevention of Imprisonments beyond the Seas.', *Statutes of the Realm: volume 5: 1628-80* (1819), : 935-938. [http://www.british-history.ac.uk/report.aspx?compid=47484&strquery=habeas corpus act 1679](http://www.british-history.ac.uk/report.aspx?compid=47484&strquery=habeas+corpus+act+1679) (Accessed July 9, 2009.)

Cherry, George. 1956. "The Role of the Convention Parliament (1688-89) in Parliamentary Sovereignty", *Journal of the History of Ideas*, 17(3): 390-406.

Clark, Gregory (2001). Farm Wages and Living Standards in the Industrial Revolution: England, 1670-1850. *Economic History Review* 54(3): 477-505.

Clark, Gregory (2002) The Agricultural Revolution and the Industrial Revolution: England, 1500-1912. Working Paper.

Clark, Gregory. (2003). "The Price of English Agriculture, 1209-1914" Working Paper.

Clark, Gregory. 1996. "The Political Foundations of Modern Economic Growth: Britain, 1540–1800." *Journal of Interdisciplinary History* 26, no. 4 (1996): 563–88.

Cockburn, J. S. 1972. *A History of English Assizes 1558-1714*. Cambridge: Cambridge University Press.

- Crawford , Clarence C. (1915) "Suspension of Habeas Corpus 1689" *The English Historical Review*, 30 (120) : 613-630
- Cross, Arthur Lyon (1914). *A History of England and Greater Britain*. The Macmillan Company.
- Dale, Richard (2004) *The First Crash: Lessons from the South Sea Bubble*. Princeton: Princeton University Press.
- Dicey, Albert Venn (1887) *The Privy Council* London: MacMillan.
- Dickinson, H. T. 2002 . *A Companion to Eighteenth-Century Britain*. Blackwell Publishing.
- Dickson, P.G.M. (1967). *The Financial Revolution in England: A Study in the Development of Public Credit 1688-1756*. London: Macmillan.
- Dixit, Avinash 2009. "Governance Institutions and Economic Activity." *American Economic Review*, 99(1): 5–24.
- Early English Books Online (2009) Chadwyck-Healey. <http://eebo.chadwyck.com/home> Accessed January 24, 2009.
- Early English Prose Fiction (2009) Chadwyck-Healey. [http://collections.chadwyck.com/infoCentre/products/contents\\_ilc.jsp](http://collections.chadwyck.com/infoCentre/products/contents_ilc.jsp). Accessed December 21, 2008.
- Easterly, William. 2008. "Design and Reform of Institutions in LDCs and Transition Economies Institutions: Top Down or Bottom Up?" *American Economic Review* 98:2, 95–99.
- Elster, Jon. 1995. "The Impact of Constitutions on Economic Performance," Proceedings of the 1994 World Bank Annual Conference on Development Economics, 209-39.
- Elster, Jon, Offe, Claus. and Preuss, Ulrich K. 1998. *Institutional Design in Post-Communist Societies: Rebuilding the Ship at Sea*. Cambridge: Cambridge University Press.
- Elster, Jon. 2000. *Ulysses unbound: studies in rationality, precommitment, and constraints*. Cambridge: Cambridge University Press.
- Elton, Geoffrey Rudolph (1989). *The Parliament of England, 1559-1581*. New York: Columbia University Press.
- Emsley, Clive (1985). "Repression, 'Terror' and the Rule of Law in England during the Decade of the French Revolution " *The English Historical Review*, 100( 397) : 801-825
- English Short Title Catalogue (2009) British Library. [http://estc.bl.uk/F?func=file&file\\_name=find-b&local\\_base=BLL06](http://estc.bl.uk/F?func=file&file_name=find-b&local_base=BLL06) Accessed January 24, 2009.
- Ertman, Thomas. (1997) *Birth of the Leviathan: Building States and Regimes in Medieval and Early Modern Europe*. Cambridge: Cambridge University Press.

- Fritze, Ronald H. and William B. Robison. (1996) *Historical dictionary of Stuart England, 1603-1689*. Westport, CT: Greenwood Press.
- Grajzl, Peter and Dimitrova-Grajzl, Valentina (2009) "The Choice in the Lawmaking Process: Legal Transplants vs. Indigenous Law," *Review of Law & Economics*: Vol. 5 : Iss. 1, Article 26.
- Luigi Guiso, Paola Sapienza, and Luigi Zingales. (2009) "Cultural Biases in Economic Exchange" *Quarterly Journal of Economics* August 2009.
- Hallam, Henry (1858). *The Constitutional History of England*. New York: Harper.
- allam, Henry, (1827) *The Constitutional History of England. Volume III. From the Accession of Henry VII to the Death of George II*. Paris : L Baudry.
- Hansen, Bruce (2000) "The New Econometrics of Structural Change: Dating Breaks in U.S. Labor Productivity" *Journal of Economic Perspectives*, 15(4): 117–128
- Hatton, Ragnhild (1978). *George I. London: Thames and Hudson*
- Hausmann, Ricardo, Lant Pritchett, and Dani Rodrik (2005) "Growth Accelerations" *Journal of Economic Growth*, 10(4) pp. 303–329.
- Hayek, Friedrich. (1960) *The Constitution of Liberty*. Chicago; University Of Chicago Press.
- Haynes, Evan (1944) *The Selection And Tenure Of Judges*. Newark, N.J. : National Conference of Judicial Councils
- Hearn, William Edward (1886). *The Government of England: Its Structure and Development*. Melbourne: George Robertson and Company.
- Horwitz, Henry (1977) *Parliament, Policy and Politics in the Reign of William III*. Newark: University of Delaware Press.
- Hoyle, R. W. (2002). "Petitioning as Popular Politics in Early Sixteenth–Century England" *Historical Research*. 75(190): 365 – 389.
- Hulme, Harold (1956). "The Winning of Freedom of Speech by the House of Commons" *The American Historical Review*, 61(4) : 825-853
- Hunt, Morton. 1997. *How Science Takes Stock*. NY: Russell Sage.
- Jay, Stuart. (1997). *Most Humble Servants: The Advisory Role of Early Judges*. New Haven: Yale University Press
- Jennings, W. I. (1933) *The Law and the Constitution*. London: University of London Press.
- Johnson, Cuthbert William. (1837) *The Life of Sir Edward Coke*. London: Henry Colburn, Publisher.

- Jones, D. W. (1988), *War and economy in the age of William I*, Basil: Blackwell
- Jones, D. W., 1988. "War and economy in the age of William III." Oxford: Basil Blackwell.
- Jones, J. R. (1992) "Revolution in Context" In *Liberty Secured?: Britain Before And After 1688*. ed. J. R. Jones. Stanford, CA: Stanford University Press.
- Kenyon, John Phillips.(1986). *The Stuart Constitution, 1603-1688: documents and commentary, Edition: 2*, Cambridge: Cambridge University Press.
- Kerekes, Monika. (2008) "Analyzing Patterns of Economic Growth: A Production Frontier Approach" Free University of Berlin.
- Klerman, Daniel and Paul Mahoney. (2005) "The Value of Judicial Independence: Evidence from Eighteenth Century England" *American Law and Economics Review* 7(1) : 1-27.
- Langelüddecke, Henrik (2007) "'I finde all men & my officers all soe unwilling': The Collection of Ship Money, 1635-1640" *Journal of British Studies*, 46:509-542
- Lawson, Phillip. (1986). "Parliament, the Constitutions and Corn: The Embargo Crisis of 1766" *Parliamentary History*, 5(1): 17 – 37.
- Lodge, (1910) *The History of England: From the Restoration to the Death of William II*. London: Longmans, Green and Co.
- Luigi Guiso, Paola Sapienza, and Luigi Zingales "Long Term Persistence", August 2008. <http://www.kellogg.northwestern.edu/faculty/sapienza/htm/putnam.pdf>
- Macaulay, Thomas Babington (1915). *The History of England*. London: MacMillan
- Maer, Lucinda. (2009) "The Act of Settlement and the Protestant Succession." House of Commons Library. <http://www.parliament.uk/commons/lib/research/briefings/snpc-00683.pdf>
- Maer, Lucinda (2008) "Royal Marriages – Constitutional Issues" House of Commons Library. <http://www.parliament.uk/commons/lib/research/briefings/snpc-03417.pdf>
- Maer, Lucinda and Oonagh Gay (2008) "The Coronation Oath" <http://www.parliament.uk/commons/lib/research/briefings/snpc-00435.pdf>
- Maitland, F. W. (1931) *The Constitutional History of England - A Course of Lectures Delivered By F. W. Maitland*. Cambridge: University Press
- May, Thomas Erskine (1896) *Constitutional History of England since the Accession of George the Third*. Boston: Crosby Nichols
- McIlwain, C. H. (1910) *The High Court of Parliament and its Supremacy*. New Haven: Yale University Press.

McIlwain, C. H. (1913). "The Tenure of English Judges" *The American Political Science Review*, 7( 2) : 217-229

Medieval Sourcebook, (2009) "Magna Carta"  
<http://www.fordham.edu/halsall/source/mcarta.html> (Accessed July 7 2009).

Miller, John. (1992) "Crown, Parliament, and People" In *Liberty Secured?: Britain Before And After 1688*. ed. J. R. Jones. Stanford, CA: Stanford University Press.

Miller, John. (2000) *James II*. New Haven: Yale University Press.

Mitchell, Brian R. (1988) *British Historical Statistics*. Cambridge: Cambridge University Press.

Morris, Marilyn (1998). *The British Monarchy and the French Revolution*. New Haven: Yale University Press

Mummery, D. (1978) 'The Privilege of Freedom of Speech in Parliament' *Law Quarterly Review* 94:

Murrell, Peter. 1992. "Evolution in Economics and in the Economic Reform of the Centrally Planned Economies." in Clague, Christopher and Gordon C. Rausser, eds. *Emergence of Market Economies in Eastern Europe*. Cambridge, MA: Blackwell Publishers.

Nenner, Howard. (1992) "Liberty, Law, and Property: The Constitution in Retrospect From 1689" In *Liberty Secured?: Britain Before And After 1688*. ed. J. R. Jones. Stanford, CA: Stanford University Press.

Nichols, Glenn O (1987). "Intermediaries and the Development of English Government Borrowing: The Case of Sir John James and Major Robert Huntington, 1675–79." *Business History*, 1743-7938, 29(1), pp. 27 – 46

Nichols, Glenn O.(1971) "English Government Borrowing, 1660-1688" *The Journal of British Studies*. 10(2) : 83-104.

North, Douglass and Barry Weingast. (1989) "Constitutions and Commitment: The Evolution of Public Choice in Seventeenth-Century England" *The Journal of Economic History*, 49( 4):803-832.

Nunes, Luis, Chung-Ming Kuan, and Paul Newbold. 1995. "Spurious Break" *Econometric Theory*, 11, 736-749.

O'Brien, P. K. 2002. "Finance and Taxation." In H. T. Dickinson ed. *A Companion to Eighteenth-Century Britain*. Blackwell Publishing, pp. 30-39.

O'Brien, P. K., and Hunt, P. A. 1993. 'The rise of a fiscal state in England, 1485-1815', *Historical research*, 66 (1993), 129-76. Data stored at  
<http://www.le.ac.uk/hi/bon/ESFDB/OBRIEN/obrien.html> Accessed August 22, 2009.

- Old Bailey Proceedings Online. 2009a. [www.oldbaileyonline.org](http://www.oldbaileyonline.org) Accessed August 12, 2008.
- Old Bailey Proceedings Online. 2009b. August 1700, trial of Mathew Attkinson (t17000828-23), [www.oldbaileyonline.org](http://www.oldbaileyonline.org), accessed November 29, 2009.
- Perceval, R. W. (1951), 'The Commons Grant, the Lords Assent' *Parliamentary Affairs* 5(4). : 469-479.
- Posner, Richard. 1998. "Creating a Legal Framework for Economic Development," 13(1) *The World Bank Observer* 1-11.
- Prest, Wilfrid. (1991). "Judicial Corruption in Early Modern England" *Past and Present*, 133 : 67-95
- Prestwich, M.C. (2005). Plantagenet England: 1225–1360. Oxford: Oxford University Press*
- Pugh, Martin (2002) 'Queen Anne is dead': The Abolition of Ministerial By-Elections, 1867-1926" *Parliamentary History* 21(3) : 351-366
- Quandt, Richard (1960) "Tests of the Hypothesis that a Linear Regression Obeys Two Separate Regimes." *Journal of the American Statistical Association*. 55: 324–30.
- Quinn, Stephen (2001). "The Glorious Revolution's Effect on English Private Finance: A Microhistory, 1680-1705" *The Journal of Economic History*. 61(3) : 593-615.
- Quinn, Stephen (2004) "Accounting for the Early British Funded Debt, 1693-1786" Working Paper: Texas Christian University.
- Quinn, Stephen (2008) "Securitization of Sovereign Debt: Corporations as a Sovereign Debt Restructuring Mechanism in Britain, 1694-1750" Working Paper.
- Richard Dale. *The First Crash: Lessons from the South Sea Bubble*. Princeton, N.J.: Princeton University Press, 2004
- Roland, Gérard. 2000. *Transition and Economics: Politics, Markets, and Firms*. Cambridge, MA: The MIT Press.
- Roseveare, Henry. (1969). *The Treasury: The Evolution of British Constitution*. New York: Columbia University Press.
- Roseveare, Henry. (1973). *The Treasury: 1660-1870: The Foundations of Control*. London: George Allen & Unwin Ltd
- Royal Marriages and Succession of the Crown (Prevention of Discrimination) Bill. (2009) Parliament Bill 29, 2009-08  
<http://www.publications.parliament.uk/pa/cm200809/cmbills/029/2009029.pdf> (Accessed July 14, 2009).
- Sachs, Jeffrey D., 2005. *The End of Poverty*. New York. Penguin.

Sachs, Jeffrey D., and David Lipton. 1990. "Creating a Market Economy in Eastern Europe: The Case of Poland," *Brookings Papers on Economic Activity*, 1990:1.

Schumpeter, Elizabeth Boody. (1938). "English Prices and Public Finance, 1660-1822". *The Review of Economics and Statistics*. 20(1):21-37.

Schwoerer (2000) "To Hold and Bear Arms: The English Perspective" *Chicago-Kent Law Review*, 76. : 27- 60

Schwoerer, Lois G. (1974). *No Standing Armies: the Anti-Army Ideology In Seventeenth Century England* . Baltimore, MD: The Johns Hopkins University Press.

Simms, Brenda and Torsten Rlotte. (2007). *The Hanoverian dimension in British History, 1714-1837*. Cambridge: University Press.

Smith, Vernon L. 2008. *Rationality in Economics: Constructivist and Ecological Forms*. Cambridge: Cambridge University Press.

Stephenson, Carl and Frederick George Marcham (1937). *Sources of English Constitutional History: A Selection of Documents From A.D. 600 to the Present*. New York: Harper & Row.

Sullivan, Richard J.(1989) "England's 'Age of Invention': The Acceleration of Patents and Patentable Invention During the Industrial Revolution" *Explorations in Economic History* 26: 424-452.

Sussman, Nathan and Yishay Yafeh. 2006. "Institutional Reforms, Financial Development and Sovereign Debt: Britain 1690–1790" *The Journal of Economic History*, Vol. 66, No. 5 (December 2006).

Tabellini, Guido. "Institutions and Culture" *Journal of the European Economic Association*, Vol.6(2-3), 2008.

Tarkow, Naamani (1943). "The Significance of the Act of Settlement in the Evolution of English Democracy" *Political Science Quarterly*, 58(4) : 537-561

*Townsend, George H. (1877) The Manual of Dates. London: Frederick Warne & Co.*

Turner, E. R. (1919). "Parliament and Foreign Affairs, 1603-1760". *The English Historical Review*. 34(134) : 172-197.

UK National Archives (2009) "Ancient Petitions, Henry III-James II"  
<http://www.nationalarchives.gov.uk/documentsonline/petitions.asp>. (Accessed July 10, 2009).

UK Statute Law Database (2009a) "Act of Supremacy (c.1)"  
<http://www.statutelaw.gov.uk/content.aspx?LegType=All+Legislation&title=act+of+supremacy&searchEnacted=0&extentMatchOnly=0&confersPower=0&blanketAmendment=0&sortAlpha=0&TYPE=QS&PageNumber=1&NavFrom=0&parentActiveTextDocId=1518143&ActiveTextDocId=1518143&filesize=25866> (Accessed July 11, 2009)



UK Statute Law Database (2009b) “Privilege of Parliament Act 1512 (c.8)”  
<http://www.statutelaw.gov.uk/content.aspx?LegType=All+Legislation&title=Privilege+of+Parliament+Act&searchEnacted=0&extentMatchOnly=0&confersPower=0&blanketAmendment=0&sortAlpha=0&TYPE=QS&PageNumber=1&NavFrom=0&parentActiveTextDocId=1517759&ActiveTextDocId=1517759&filesize=17141> (Accessed July 11, 2009)

UK Statute Law Database (2009c) “Septennial Act 1715 (c.38)”  
<http://www.statutelaw.gov.uk/content.aspx?LegType=All+Legislation&searchEnacted=0&extentMatchOnly=0&confersPower=0&blanketAmendment=0&sortAlpha=0&PageNumber=0&NavFrom=0&activeTextDocId=1516478&parentActiveTextDocId=1516478&showAllAttributes=1&showProsp=0&suppressWarning=0&hideCommentary=1> (Accessed July 7 2009)

UK Statute Law Database (2009c). “Statute of Westminster, The First (1275) (c.5)”  
[http://www.statutelaw.gov.uk/content.aspx?LegType=Act+\(Old+English+Parliament\)&Year=1275&searchEnacted=0&extentMatchOnly=0&confersPower=0&blanketAmendment=0&sortAlpha=0&TYPE=QS&PageNumber=1&NavFrom=0&parentActiveTextDocId=1517436&ActiveTextDocId=1517436&filesize=6634](http://www.statutelaw.gov.uk/content.aspx?LegType=Act+(Old+English+Parliament)&Year=1275&searchEnacted=0&extentMatchOnly=0&confersPower=0&blanketAmendment=0&sortAlpha=0&TYPE=QS&PageNumber=1&NavFrom=0&parentActiveTextDocId=1517436&ActiveTextDocId=1517436&filesize=6634) (Accessed July 11, 2009)

Weingast, Barry R. 2005. "The Constitutional Dilemma of Economic Liberty." *The Journal of Economic Perspectives*, 19( 3) pp. 89-108.

Wells, John, and Douglas Wills. 2000. “Revolution, Restoration, and Debt Repudiation: The Jacobite Threat to Britain’s Institutions and Economic Growth.” *The Journal of Economic History* 60, no. 2: 418–41.

Wheeler, James Scott (1999). *The Making of a World Power: War and the Military Revolution in Seventeenth Century England*. Gloucestershire: Sutton Publishing.

Wilkinson, Bertie. (1958) *Constitutional History of Medieval England, 1216-1399*, vol.3. London: Longmans.

'William and Mary, 1688: An Act for Establishing the Coronation Oath. [Chapter VI. Rot. Parl. pt. 5. nu. 3.]', *Statutes of the Realm: volume 6: 1685-94* (1819), : 56-57. [http://www.british-history.ac.uk/report.aspx?compid=46292&strquery=Coronation Oath Act 1688](http://www.british-history.ac.uk/report.aspx?compid=46292&strquery=Coronation+Oath+Act+1688) (Accessed: 09 July 2009)

## Appendix: Estimating structural breaks in growth rates

A change in growth rates of production and prices is the most likely scenario for the beginning of development. However, for the seventeenth and eighteenth centuries in England, growth rate data are very noisy and lead to tests of low power. Given close-to-zero growth either before (real variables) or after (price variables) structural breaks and given levels variables that change slowly, analysis of levels can provide valuable information.

Two theoretical papers have some relevance. Nunes, Kuan, and Newbold (1995) suggest that an estimate of a break in a process that is integrated of degree one is biased toward the middle of the sample. Bai (1998) provides a proof of this observation. Hence, some of this paper's results could reflect biases that make estimated breaks closer to 1700, which is usually the midpoint of the data. Since the North-Weingast hypothesis predicts structural breaks close to 1700 and the Hayek hypothesis does not, there is a bias toward supporting the former: the conclusions from this paper's empirical results are conservative.

To explore this issue further, simulations were conducted. The simulations use Section 3's model to generate artificial data, but assume that the North-Weingast hypothesis is correct:

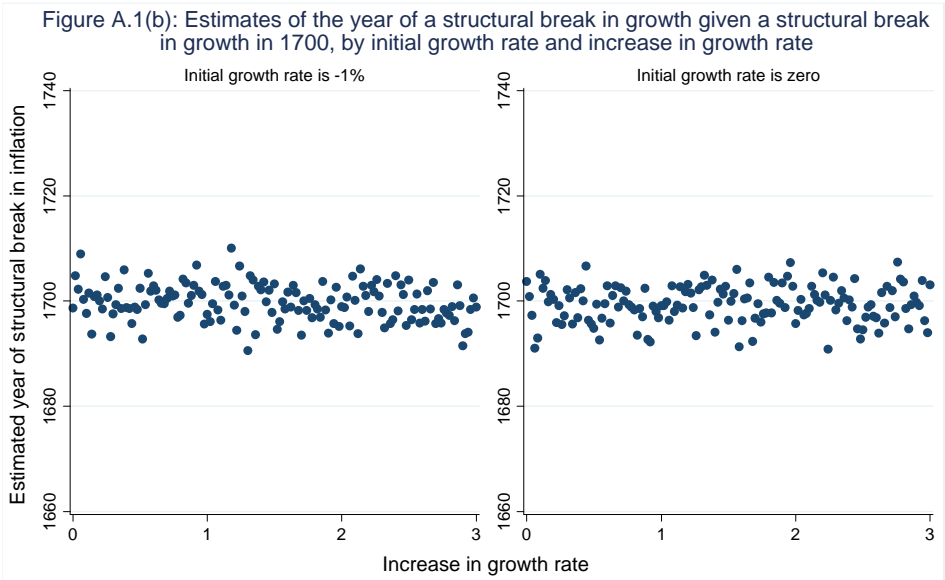
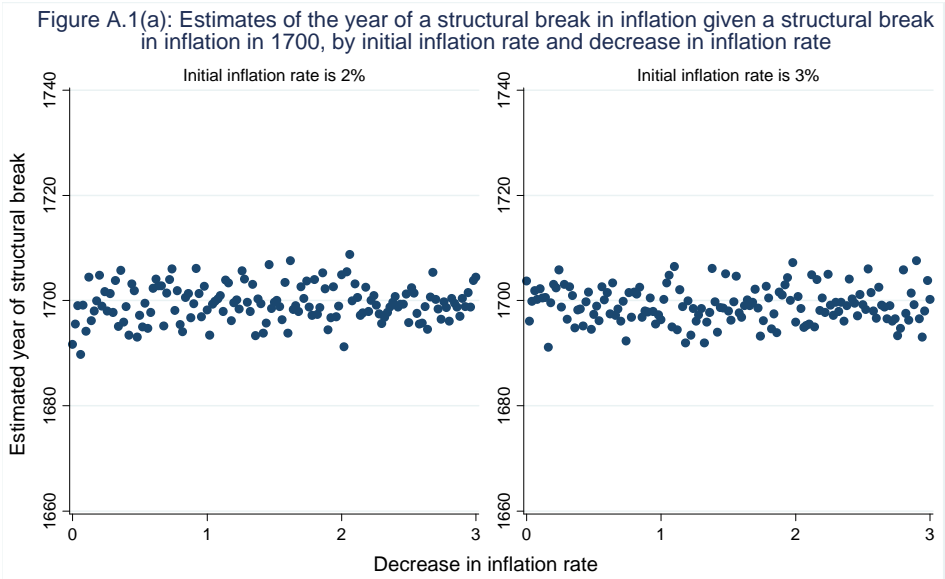
$$\begin{aligned}y_t &= \alpha_1 + \varepsilon_t & t = 1640, 1641, \dots, 1699 \\y_t &= \alpha_2 + \varepsilon_t & t = 1700, 1701, \dots, 1760\end{aligned}$$

with  $y_t$  a growth rate. The objective is to examine whether there are any biases against acceptance of the North-Weingast hypothesis when using data reflecting that hypothesis.

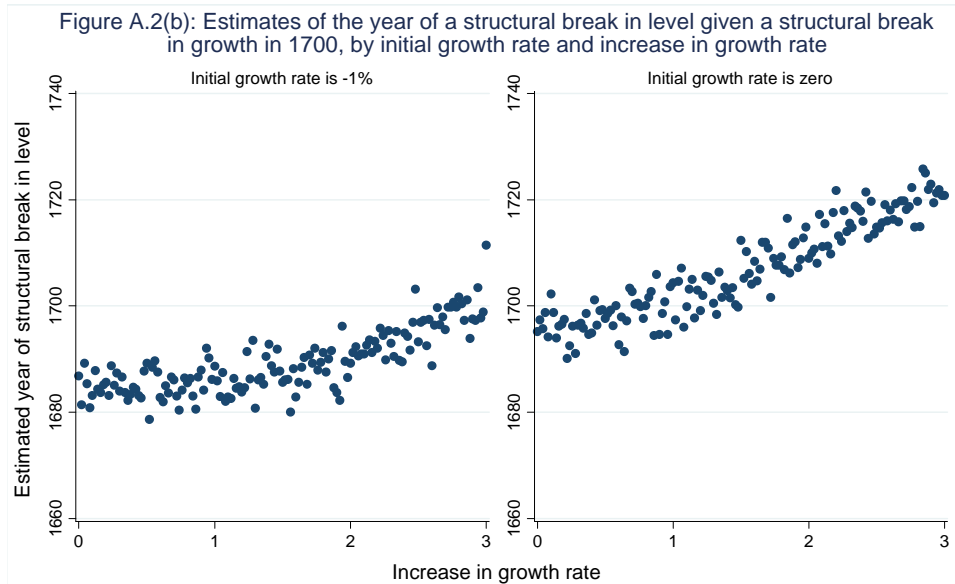
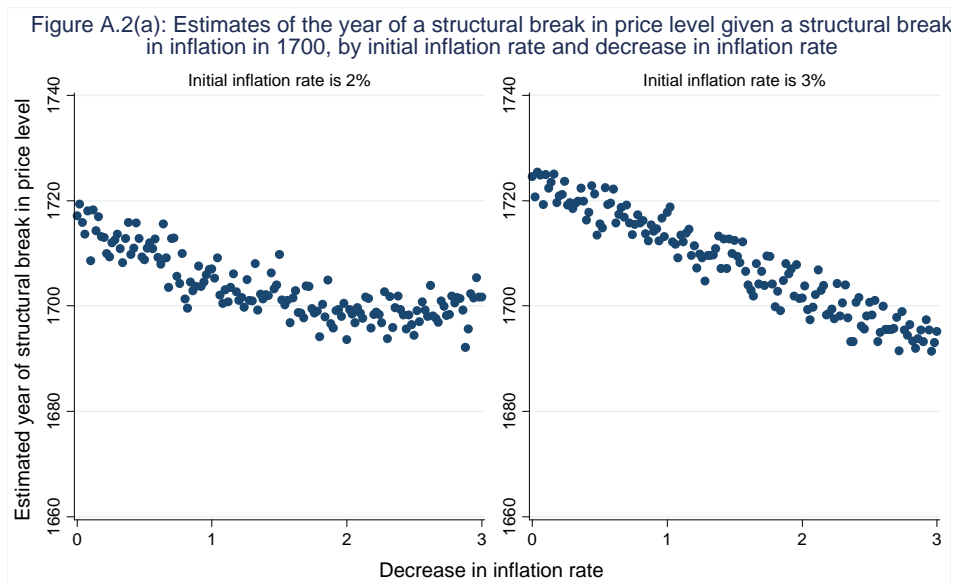
Two separate simulations reflect the properties of the two types of data that are predominant in Section 3—production and price variables. A typical scenario for inflation during 1640-1760 has rates of 2% or 3% before the break and declines in inflation of 0-3 percentage points thereafter. Similarly, real growth has rates of -1% or 0% before the break and increases in growth of 0-3 percentage points after. Of course, the different data series used in Section 3

exhibit widely varying properties, but these scenarios are typical. The standard deviation of the error term is set to correspond to the typical scenario, equal to 10 percentage points. Each data point in the figures below corresponds to a mean of 100 simulations.

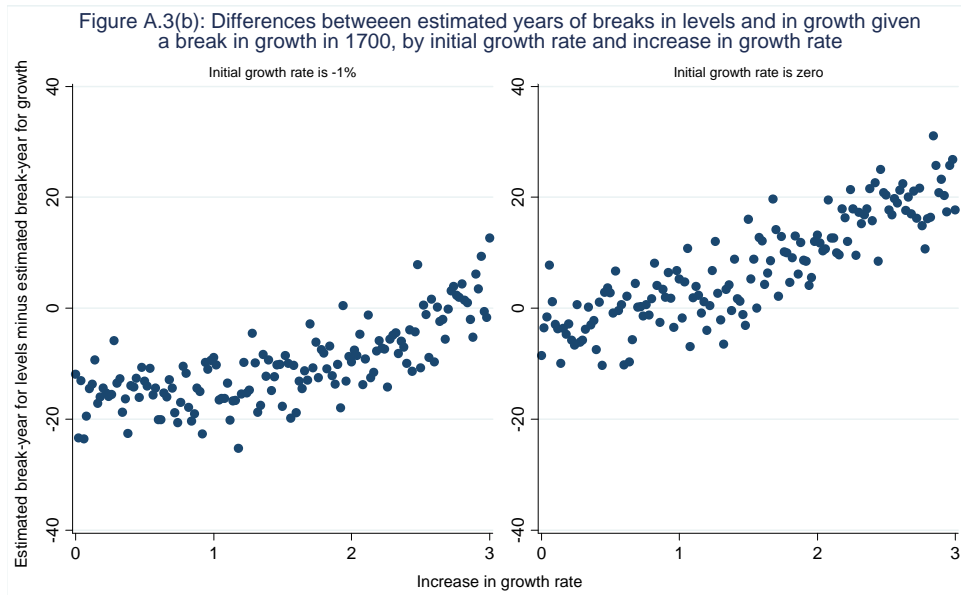
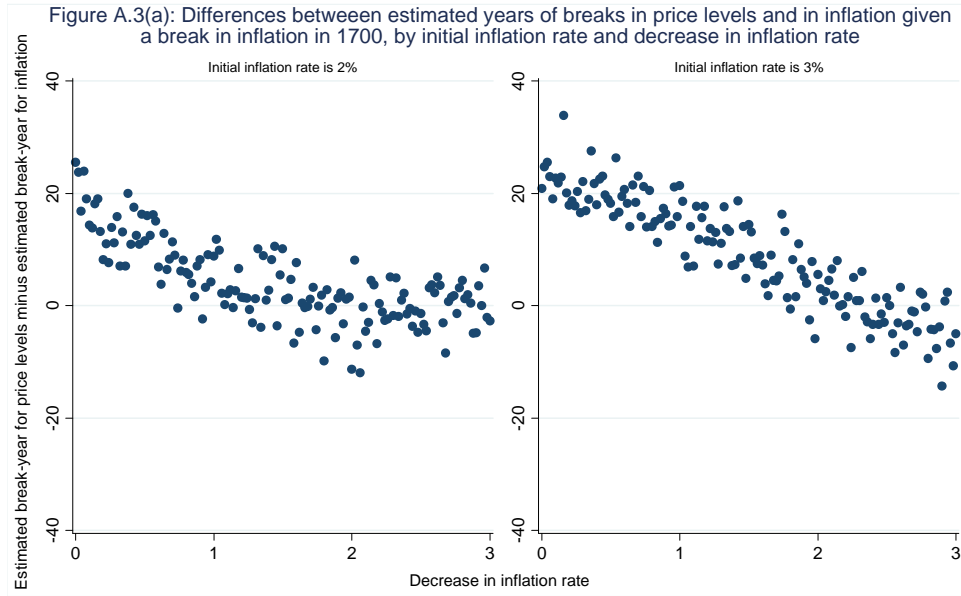
Figures A.1(a) and A.1(b) present estimates of breakdates assuming an unknown break in growth rates. Estimates are close to 1700, as expected. Notably, as in Section 3, very few of the estimates are significant at conventional levels. Obviously, this reflects noise in the data rather than whether there is actually a breakdate.



Figures A.2(a) and A.2(b) show estimates of breakdates assuming an unknown break in levels. (That is, the process generating the data is as above, with a growth-break, but the estimating procedures assume a levels break.) For inflation, all estimates are after or close to 1700. There is no bias whatsoever toward rejection of North-Weingast and acceptance of Hayek. For the real growth scenarios, two-thirds of the estimates are after or close to 1700. Notably, all estimates that reflect 1% or more growth in later years are close to or after 1700. Again, there is little suggestion of a bias toward rejection of the timing hypothesized by North-Weingast.



Notably, as in Section 3, most estimates of structural breaks in Figures A.2(a) and A.2(b) are statistically significant at conventional levels. This suggests that the scenario captured in the simulations matches the reality of the seventeenth century as captured in the data of Section 3.



Finally, Figures A.3(a) and A.3(b) show the differences between the two sets of estimates of structural breaks. Although A.3(a) and A.3(b) simply reflect the previous two sets of Figures, they exhibit a crucial point. Estimates of growth-breaks, which are unbiased, are earlier in time

than the corresponding estimates of levels-breaks in over 75% of cases. This is similar to the patterns appearing in the text. Of the nineteen production and price series for which both levels and growth rates are examined in Section 3, sixteen have the growth-break appearing before the level-break. This increases confidence that the simulations reflect the properties of the processes examined in Section 3. Hence, the conclusions of Section 3 do not reflect procedures that are biased against acceptance of the North-Weingast timing. Indeed, if anything, the bias goes in the opposite direction.

These simulation exercises provide support for the empirical approach of Section 3 and validate the interpretation of the results given there. Estimates of growth-breakdates are unbiased. Estimates of levels-breakdates are generally biased upwards (i.e., later in time than they should be). Growth-estimates are usually insignificant, reflecting noise in the data, while levels-estimates are significant, reflecting the stability of levels. These patterns of results in the simulations match the patterns of results in the empirical exercises of Section 3.

In sum, the simulated data reflect a break-date of 1700, and the estimates captured in Figures A.1 and A.2 would, if anything, lead one to conclude that the break-date is after 1700. Hence, this Appendix shows quite clearly that the methods adopted in Section 3, if anything, bias the conclusions in favor of the North-Weingast timing and against that of Hayek.

**Table 1: Data series: definitions, sources and summary statistics**

Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
Property offenses as % of all crime*	Percentage of all crimes reported in The Proceedings of the Old Bailey that fall in the area of property (arson, fraud, forgery, theft, burglary, embezzlement, game offences, housebreaking, larceny, receiving stolen goods, shoplifting, robbery and piracy.)	Old Bailey Proceedings Online (2009a)	1674-1726	50	0.699	0.114
Severity of punishment for property offenses*	Percentage of punishments for property crimes that include death, transportation, and imprisonment.	Old Bailey Proceedings Online (2009a)	1674-1726	49	0.443	0.200
Level of consumer prices (Schumpeter)	An index of the prices of cereals, animal products, beverages and condiments, candles and coal, and clothing. 1701 = 100	Schumpeter (1938)	1661-1740	80	105.8	13.14
Growth of consumer prices (Schumpeter)	Percentage growth of above index	Schumpeter (1938)	1662-1740	79	-0.1	6.7
Level of producer prices (Schumpeter)	An index of the prices of bricks, coal, copper, glue, hemp, lead, leather backs, lime, pan-tiles, plain tiles, tallow and train oil. 1701=100	Schumpeter (1938)	1661-1740	80	95.58	9.483
Growth of producer prices (Schumpeter)	Percentage growth of above index	Schumpeter (1938)	1662-1740	79	-0.2	4.6
Level of bread prices (Mitchell)	Average price of wheaten or household bread in London in pence per pound	Mitchell (1988), ch. 14, table 22	1640-1757	118	5.659	1.250
Growth of bread prices (Mitchell)	Percentage growth of above index	Mitchell (1988)	1641-1757	117	0.015	0.171

Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
Level of Wheat Prices (Mitchell)	Average of the price of wheat in Exeter, Eton, and Winchester Colleges in shillings per Winchester quarter	Mitchell (1988), ch. 14, table 16	1640-1760	121	35.82	9.769
Growth of wheat prices (Mitchell)	Percentage growth of above index	Mitchell (1988)	1641-1760	120	2.5	24.3
Level of beer production	Volume of beer charged with duty in England and Wales. Average of strong beer and small beer.	Mitchell (1988), ch. 8, table 3a	1684-1726	43	2979	342
Growth of beer production	Percentage growth of above index	Mitchell (1988), ch. 8, table 3a	1685-1726	42	-0.1	4.9
Level of spirits production	Volume of home produced spirits charged with duty for consumption in England and Wales.	Mitchell (1988), ch. 8 table 5	1684-1726	43	1692	1010
Growth of spirits production	Percentage growth of above index	Mitchell (1988), ch. 8 table 5	1685-1726	42	0.058	0.134
% unfunded government debt (Mitchell)	Unfunded debt as a percentage of total debt. Funded debt is that for which Parliament has specified a particular revenue stream for debt service.	Mitchell (1988), ch. 11 table 7	1691-1726	36	49.6	32.2
% unfunded government debt (Quinn)	Mitchell's series amended to include stocks and irredeemable annuities.	Quinn (2004)	1691-1726	36	0.392	0.278
Works in 'Early English Prose Fiction'	Number of works in each year included in <i>Early English Prose Fiction</i> , a 'balanced and representative survey of fictional prose in English from the period 1500–1700, comprising more than 200 works.'	Early English Prose Fiction (2009)	1660-1700	41	1.683	1.650



Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
English publications in British Library	Number of English publications each year included in the English Short Title Catalogue of the British library.	English Short Title Catalogue (2009)	1640-1760	121	1615	540.8
English publications in EEBO	Number of English publications in each year included in Early English Books Online.	Early English Books Online (2009)	1660-1700	41	1146	477.2
Exchange rate, Hamburg, schilling/£*	Average of monthly exchange rate data, expressed in schillings per pound sterling	Mitchell(1988), ch. 12, table 22	1640-1760	99	34.19	1.257
Exchange rate, Paris, ecu/£ *	Average of monthly exchange data, in ecu per pound sterling.	Mitchell(1988), ch. 12, table 22	1640-1760	97	0.025	0.008
Real GDP	Index of real GDP, using data constructed from the output side. 1700= 100.	Broadberry (2008) Apostilides et al. (2008)	1640-1760	121	98.92	14.57
Growth in real GDP	Percentage growth in the above index.	as above	1640-1760	121	0.6	5.1
Number of estate acts **	Number of acts passed by Parliament that restructured rights to real and equitable estates for years when Parliament in session	Bogart and Richardson (2008)	1640-1760	107	13.05	10.71
Level of arable prices (Clark)	Index of prices of wheat, rye, barley, oats, peas, beans, potatoes, hops, straw, mustard seed, and saffron.	Clark (2003)	1640-1760	121	57.70	10.34
Growth of arable prices (Clark)	Percentage growth of arable prices, as defined above.	Clark (2003)	1640-1760	121	0.8	13.8
Level of pasture prices (Clark)	Index of prices of hay, cheese, butter, milk, beef, mutton, pork, bacon, tallow, wool, and eggs.	Clark (2003)	1640-1760	121	48.55	4.446

Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
Growth of pasture prices (Clark)	Percentage growth of pasture prices, as defined above.	Clark (2003)	1640-1760	121	0.1	6.8
Level of wood prices (Clark)	Index of prices of firewood and timber,	Clark (2003)	1640-1760	121	88.26	8.435
Growth of wood prices (Clark)	Percentage growth in the above index.	Clark (2003)	1640-1760	121	4.49	10.5
Level of farm prices (Clark)	Index of prices of farm output, which include arable, pasture, wood, and cider/honey prices.	Clark (2003)	1640-1760	121	54.53	6.902
Growth of farm prices (Clark)	Percentage growth in the above index.	Clark (2003)	1640-1760	121	0.3	8.9
Nominal farm wages (Clark)	Wages for all farm work carried out between October and May, and for regular farm operations carried out in the summer months.	Clark (2001)	1670-1730	61	10.30	0.437
Growth of nominal farm wages (Clark)	Percentage growth in the above index	Clark (2001)	1671-1730	60	0.2	5.0
Real agricultural output (Clark)**	Index of real output estimated from capital employed in farming per acre, adjusted using a price index.	Clark(2002)	1600-1800	21	54.83	5.955
Growth of real agricultural output (Clark)**	Percentage growth in the above index.	Clark(2002)	1610-1800	20	1.3	7.3
Real agricultural output per farm worker (Clark)**	Above real output index divided by number of males involved in farming.	Clark(2002)	1600-1800	21	77.45	7.23

Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
Growth of real agricultural output per farm worker (Clark)**	Percentage growth in the above index.	Clark(2002)	1610-1800	20	0.2	8.0
Real wages of laborers	Average wage of building laborers in London, deflated using the consumer price index defined below	Allen (2001)	1640-1760	121	7.28	0.96
Growth of real wages of laborers	Percentage growth in the above index	Allen (2001)	1640-1760	121	0.6	9.1
Real wages of craftsmen	Average wage of craftsmen in London deflated using the consumer price index defined below	Allen (2001)	1640-1760	121	10.7	1.41
Growth of real wages of craftsmen	Percentage growth in the above index.	Allen (2001)	1640-1760	121	0.4	8.9
Level of real wages (Allen)	Level of wages deflated using the consumer price index defined below.	Allen (1992)	1640-1760	121	13.76	1.32
Growth of real wages (Allen)	Percentage growth in the above index.	Allen (1992)	1640-1760	121	0.2	4.1
Level of consumer prices (Allen)	An index of the prices of goods consumed by those at the poverty line.	Allen (1992)	1640-1760	121	0.880	0.087
Growth of consumer prices (Allen)	Percentage growth in the above index.	Allen (1992)	1640-1760	121	0.049	4.7
Level of real rent per acre	Average per acre of land rents in shillings	Allen(1992)	1640-1760	121	11.14	2.110
Growth of real rent per acre	Percentage growth in rent per acre	Allen(1992)	1640-1760	121	0.5	4.7

Variable	Description	Source	Years	Obs.	Mean	Std. Dev.
Number of Patents	Number of patents issued in a given year	Sullivan (1989)	1661-1740	80	5.550	4.48
Growth of Number of Patents*	Percentage growth in number of patents issued	Sullivan (1989)	1662-1740	75	22.5	112.2
Number of Patents, Weighted by Significance	Index of economic significance of number of patents issued by weighting each patent by number of industries to which it might be applied.	Sullivan (1989)	1661-1740	80	9.400	8.32
Growth of Number of Patents, Weighted by Significance*	Percentage growth in the above index.	Sullivan (1989)	1662-1740	75	4.61	185.8
Level of direct tax revenues	Total collected from direct taxes (thousands of £ sterling in constant prices)	O'Brien and Hunt (1993)	1655-1745	90	1225	680.1
Growth of direct tax revenues	Percentage growth of total collections of direct taxes	O'Brien and Hunt (1993)	1656-1745	89	15.0	75.6
Level of indirect tax revenues	Total revenues from indirect taxes (thousands of £ sterling in constant prices)	O'Brien and Hunt (1993)	1655-1745	90	2623	1531
Growth of indirect tax revenues	Percentage growth of total collections of indirect taxes	O'Brien and Hunt (1993)	1656-1745	89	4.1	21.6
Level of government revenues	Total government revenues from all sources (thousands of £ sterling in constant prices)	O'Brien and Hunt (1993)	1655-1745	90	3997	1995
Growth of government revenues	Percentage growth of total government revenues from all sources	O'Brien and Hunt (1993)	1656-1745	89	4.2	24.2

Notes: \*Some years missing in the data series; \*\*observations are decadal, not yearly

**Table 2: Estimates of single structural breaks in data series on English development spanning 1700: Year of break, significance, direction of change, and confidence interval**

Variable Name	Data Years	Estimates of a Single Break		10% Confidence Intervals	
		Break Date	Tendency	Start Year	End Year
Property offences as % of all crime	1674-1726	1697*	Increase	1695	1698
Severity of punishment for property offences	1674-1726	1718*	Increase	1716	1719
Level of consumer prices (Schumpeter)	1661-1740	1701*	Decrease	1697	1703
Growth of consumer prices (Schumpeter)	1662-1740	1734	Increase	1720	1740
Level of producer prices (Schumpeter)	1661-1740	1674*	Decrease	1669	1675
Growth of producer prices (Schumpeter)	1662-1740	1668	Decrease	1661	1673
Level of bread prices (Mitchell)	1640-1757	1700*	Decrease	1692	1705
Growth of bread prices (Mitchell)	1641-1757	1648	Decrease	1640	1663
Level of Wheat Prices (Mitchell)	1640-1760	1717*	Decrease	1708	1724
Growth of wheat prices (Mitchell)	1641-1760	1655	Increase	1640	1675
Level of beer production	1684-1726	1691*	Decrease	1691	1693
Growth of beer production	1685-1726	1690	Decrease	1684	1691
Level of spirits production	1684-1726	1710*	Increase	1708	1711
Growth of spirits production	1685-1726	1691	Decrease	1684	1694
% unfunded government debt (Mitchell)	1691-1726	1712*	Decrease	1711	1713
% unfunded government debt (Quinn)	1691-1726	1711*	Decrease	1710	1712
Works in 'Early English Prose Fiction'	1660-1700	1694	Increase	1669	1699
English publications in British Library	1640-1760	1679*	Increase	1674	1686
English publications in EEBO	1660-1700	1679*	Increase	1674	1682
Exchange rate, Hamburg, schilling/£**	1640-1760	1648*	Decrease	1645	1649
Exchange rate, Paris, ecu/£**	1640-1760	1718*	Increase	1716	1719
Real GDP	1640-1760	1722*	Increase	1719	1723
Growth in real GDP	1640-1760	1647	Increase	1640	1648
Number of estate acts	1640-1760	1688*	Increase	1684	1689
Level of arable prices (Clark)	1640-1760	1665*	Decrease	1653	1674
Growth of arable prices (Clark)	1640-1760	1649	Decrease	1640	1658
Level of pasture prices (Clark)	1640-1760	1703*	Decrease	1700	1707
Growth of pasture prices (Clark)	1640-1760	1649	Decrease	1642	1684
Level of wood prices (Clark)	1640-1760	1661*	Increase	1652	1663

Variable Name	Data Years	Estimates of a Single Break		10% Confidence Intervals	
		Break Date	Tendency	Start Year	End Year
Growth of wood prices (Clark)	1640-1760	1655*	Increase	1653	1658
Level of farm prices (Clark)	1640-1760	1665*	Decrease	1659	1671
Growth of farm prices (Clark)	1640-1760	1649	Decrease	1640	1662
Nominal farm wages (Clark)	1670-1730	1690*	Decrease	1683	1693
Growth of nominal farm wages (Clark)	1671-1730	1676	Decrease	1670	1688
Real agricultural output (Clark)***	1600-1800	1660*	Increase	1650	1670
Growth of real agricultural output (Clark)***	1610-1800	1740	Decrease	1720	1800
Real agricultural output per farm worker (Clark)***	1600-1800	1670*	Increase	1650	1680
Growth real agricultural output/farm worker (Clark)***	1610-1800	1660	Increase	1610	1700
Real wages of laborers	1640-1760	1685*	Increase	1682	1687
Growth of real wages of laborers	1640-1760	1650	Increase	1640	1656
Real wages of craftsmen	1640-1760	1736*	Increase	1734	1738
Growth of real wages of craftsmen	1640-1760	1648	Increase	1640	1653
Level of real wages (Allen)	1640-1760	1677*	Increase	1672	1678
Growth of real wages (Allen)	1640-1760	1648	Increase	1640	1651
Level of consumer prices (Allen)	1640-1760	1670*	Decrease	1666	1671
Growth of consumer prices (Allen)	1640-1760	1648	Decrease	1642	1653
Level of real rent per acre	1640-1760	1701*	Increase	1698	1702
Growth of real rent per acre	1640-1760	1647	Increase	1641	1651
Patent Count	1661-1740	1673	Increase	1661	1674
Patent Count, weighted by industrial spread	1661-1740	1716	Increase	1692	1724
Growth rate of patent count**	1662-1740	1690	Increase	1661	1694
Growth rate of weighted patent count**	1662-1740	1720	Increase	1661	1722
Level of direct tax revenues	1655-1745	1689*	increase	1691	1723
Growth of direct tax revenues	1656-1745	1690	decrease	1678	1705
Level of indirect tax revenues	1655-1745	1698*	increase	1686	1690
Growth of indirect tax revenues	1656-1745	1700	decrease	1656	1712
Level of government revenues	1655-1745	1692*	increase	1697	1699
Growth of government revenues	1656-1745	1673	decrease	1656	1731

Notes: \* Significant at 10%; \*\*Some years missing in data series; \*\*\* Decadal rather than yearly observations

**Table 3: Estimates of multiple structural breaks in data series on English development spanning 1700: Consistency with estimated breaks from single-break estimates**

Variable Name	Data Years	Single break estimates from Table 2	Estimates of multiple breaks	
			Number of Breaks	Breakdates
Property offences as % of all crime	1674-1726	1697*	2	1699, 1685
Severity of punishment for property offences	1674-1726	1718*	2	1718, 1686
Level of consumer prices (Schumpeter)	1661-1740	1701*	>5	1701, 1667, 1694, 1687, 1731
Growth of consumer prices (Schumpeter)	1662-1740	1734	1	1734
Level of producer prices (Schumpeter)	1661-1740	1674*	>5	1677, 1669, 1714, 1690, 1685
Growth of producer prices (Schumpeter)	1662-1740	1668	1	1668
Level of bread prices (Mitchell)	1640-1757	1700*	1	1700
Growth of bread prices (Mitchell)	1641-1757	1648	1	1648
Level of Wheat Prices (Mitchell)	1640-1760	1717*	1	1717
Growth of wheat prices (Mitchell)	1641-1760	1655	1	1655
Level of beer production	1685-1726	1691*	2	1692, 1718
Growth of beer production	1685-1726	1690	1	1690
Level of spirits production	1685-1726	1710*	5	1706, 1722, 1700, 1692, 1715
Growth of spirits production	1685-1726	1691	1	1691
% unfunded government debt (Mitchell)	1691-1726	1712*	3	1712, 1697, 1718
% unfunded government debt (Quinn)	1691-1726	1711*	4	1712, 1698, 1706, 1718
Works in 'Early English Prose Fiction'	1660-1700	1694	1	1694
English publications in British Library	1640-1760	1679*	1	1679
English publications in EEBO	1660-1700	1679*	1	1679
Exchange rate, Hamburg, schilling/£**	1640-1760	1648*	2	1648, 1756
Exchange rate, Paris, ecu/£**	1640-1760	1718*	>5	1719, 1724, 1697, 1730, 1753
Real GDP	1640-1760	1722*	>5	1722, 1651, 1747, 1756, 1686
Growth in real GDP	1640-1760	1647	2	1648, 1654
Number of estate acts	1640-1760	1688*	>5	1691, 1707, 1702, 1660, 1753
Level of arable prices (Clark)	1640-1760	1665*	2	1652, 1647
Growth of arable prices (Clark)	1640-1760	1649	2	1649, 1655
Level of pasture prices (Clark)	1640-1760	1703*	5	1703, 1647, 1652, 1694, 1686
Growth of pasture prices (Clark)	1640-1760	1649	1	1649
Level of wood prices (Clark)	1640-1760	1661*	2	1661, 1716

Variable Name	Data Years	Single break estimates from Table 2	Estimates of multiple breaks	
			Number of Breaks	Breakdates
Growth of wood prices (Clark)	1640-1760	1655*	1	1655
Level of farm prices (Clark)	1640-1760	1665*	>5	1687, 1647, 1652, 1700, 1693
Growth of farm prices (Clark)	1640-1760	1649	2	1649, 1655
Nominal farm wages (Clark)	1670-1730	1690*	1	1690
Growth of nominal farm wages (Clark)	1671-1730	1676	0	
Real agricultural output (Clark)***	1600-1800	1660*	2	1660, 1720
Growth of real agricultural output (Clark)***	1610-1800	1740	0	
Real agricultural output per farm worker (Clark)***	1600-1800	1670*	1	1670
Growth of real agri. output/farm worker (Clark)***	1610-1800	1660	0	
Real wages of laborers	1640-1760	1685*	2	1685, 1729
Growth of real wages of laborers	1640-1760	1650	1	1650
Real wages of craftsmen	1640-1760	1736*	1	1736
Growth of real wages of craftsmen	1640-1760	1648	1	1648
Level of real wages (Allen)	1640-1760	1677*	>5	1690, 1683, 1714, 1677, 1726
Growth of real wages (Allen)	1640-1760	1648	1	1648
Level of consumer prices (Allen)	1640-1760	1670*	>5	1678, 1650, 1690, 1700, 1730
Growth of consumer prices (Allen)	1640-1760	1648	1	1648
Level of real rent per acre	1640-1760	1701*	>5	1701, 1675, 1732, 1650, 1746
Growth of real rent per acre	1640-1760	1647*	1	1647
Patent Count	1661-1740	1673	1	1673
Patent Count, weighted by industrial spread	1661-1740	1716	4	1716, 1691, 1696, 1731
Growth rate of patent count**	1662-1740	1690	0	
Growth rate of weighted patent count**	1662-1740	1720	0	
Level of direct tax revenues	1655-1745	1689	3	1689, 1723, 1741
Growth of direct tax revenues	1656-1745	1690	1	1690
Level of indirect tax revenues	1655-1745	1698	>5	1698, 1712, 1672, 1686, 1717
Growth of indirect tax revenues	1656-1745	1700	0	
Level of government revenues	1655-1745	1692	>5	1692, 1702, 1687, 1702, 1717
Growth of government revenues	1656-1745	1673	1	1673

Notes: \* Significant at 10%; \*\*Some years missing in data series; \*\*\* Decadal rather than yearly observations



**Table 4: Precedent and Survival in the Clauses of the Bill of Rights**

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
"William and Mary...be declared king and queen of England..."	There was a Parliamentary role in the replacement of Monarchs in 1327, 1399, 1483, 1485, 1649/1660. <sup>2</sup> The Divine Right of Kings had fallen with Charles I's head. <sup>3</sup> William was effectively King well before this measure was passed, as a result of successful invasion, popular support, and the flight of James II. Parliament's role in successions already assumed by all, using the precedents of 1399 and 1660. <sup>4</sup>	Act of Settlement, 1701, reaffirmed Parliamentary role in determining succession.	
"all and every person and persons that is, are or shall be reconciled to or shall hold communion with the see or Church of Rome, or shall profess the popish religion, or shall marry a papist, shall be excluded and be for ever incapable to inherit, possess or enjoy the crown and government of this realm...that every king and queen of this realm [shall] make, subscribe and audibly repeat the declaration mentioned in the statute made in [1678]"	Acts of 1673 and 1678 established this condition for Parliament and monarch's servants. <sup>5</sup> The Act of 1673 caused the resignation from government of James Duke of York, later James II, and so set precedent for this clause of the Bill of Rights, <sup>6</sup> which extended that Act to monarch. The declaration by the monarch was that he/she was not a Catholic and was to be understood (using the phrasing from the 1678 Act) in the "plain and ordinary sens of the words...as they are commonly understood by English protestants..." <sup>7</sup> This declaration originates in measures of the Long Parliament in 1643. <sup>8</sup>	Act of Settlement, 1701, reinforced Parliament's right to use religion to set the line of succession. <sup>9</sup> This clause has survived until today, with attempts at change only arising in the twentieth century. <sup>10</sup> Repeal of marriage bar suggested in 2009. <sup>11</sup>	The most innovative of all the measures in the Bill, in a legal sense. <sup>12</sup> The converse of the doctrine of <i>cuius regio, eius religio</i> , <sup>13</sup> dominant in Europe until that time, but effectively not-applicable in England by 1688. Three previous elections (1679-1681) had each led to a Commons majority that favored such a law. <sup>14</sup> The act mentioned in this clause is "An Act for the more effectual preserving the king's person and government by disabling papists from sitting in either House of Parliament" of 1678. <sup>15</sup>

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"That the pretended power of suspending the laws or the execution of laws by regal authority without consent of Parliament is illegal."</p>	<p>As early as 1392, the Commons rejected Richard II's use of suspension.<sup>16</sup> Controversial uses in Stuart period focused only on religious issues. Judges in 1662, 1673, and 1688 questioned the legality of the suspending power even in religious matters.<sup>17</sup> In 1673 Charles II accepted that he had no right to suspend laws affecting property, rights, or liberties.<sup>18</sup> In 1663 and 1673 Commons asserted that statutes could only be suspended by statute, and Charles did not challenge this and did not try to suspend again after 1673.<sup>19</sup> At that time, Charles acknowledged that his attempt to suspend was illegal.<sup>20</sup> James II did not claim that he had a right to the suspending power.<sup>21</sup></p>	<p>Unquestioned acceptance.</p>	<p>Suspending never viewed as above common law property rights; it could not be used in dispute between two citizens; it could not be used to raise revenues.<sup>22</sup> "...neither Charles nor James revived the prerogative devices used by their father to raise money without Parliament's consent."<sup>23</sup> By the time of the Restoration settlement, 1660, "The king could now raise money only in ways approved by Parliament and Englishmen would possess all the rights accorded by the common law."<sup>24</sup> "Charles II and James II, in turn, repeatedly gave assurances that they would never invade their subjects' property."<sup>25</sup></p>
<p>"That the pretended power of dispensing with laws or the execution of laws by regal authority, as it hath been assumed and exercised of late, is illegal; [late additions to the Bill] no dispensation by <i>non obstante</i> of or to any statute or any part thereof shall be allowed...except a dispensation be allowed of in such statute... Provided that no charter or grant or pardon granted before the three and twentieth day of October in the year of our Lord one thousand six hundred eighty-nine shall be any ways impeached or invalidated by this Act"</p>	<p>Pragmatic tool developed to solve practical problems quickly when Parliaments met irregularly. 1584 case: King could not dispense Common Law.<sup>26</sup> 1602 Case of Monopolies: dispensing could not negate intent of statute.<sup>27</sup> 1662: Parliament refused to give Charles II general dispensing power, even on religious issues.<sup>28</sup> In 1662, Parliament prevented dispensing by naming an act as a public nuisance in a statute, thus invoking old law, since a nuisance is a <i>malum in se</i>.<sup>29</sup> 1674 case: Courts confirmed that Parliament can stop dispensing by declaring something a <i>malum in se</i>.<sup>30</sup> 1674 case: courts confirmed that dispensing could not take away a private right.<sup>31</sup> 1686 case: dispensing power ruled legal for religious penal laws.<sup>32</sup> Nobody questioned that King had right to dispense occasionally on religious matters.<sup>33</sup></p>	<p>Some uncontroversial violations. A controversial one occurred in 1766, when George III dispensed a law while Parliament was out of session to lessen civil disorder over grain prices. When Parliament was next in session, it continued George's measures while declaring dispensing illegal. This was no more than a restatement of the Bill of Rights.<sup>34</sup></p>	<p>The dispensing power was not relevant in a legal sense to taxing, spending, and property rights. Common law property rights could not be dispensed.<sup>35</sup> Dispensing could not be used in dispute between two citizens.<sup>36</sup> Dispensing power only relevant to statutes carrying penalties assigned to the crown that the King could forgo.<sup>37</sup> King could not dispense statutes for the public good, and could not license activities specifically defined as harms by a statute.<sup>38</sup> Charles II and James II only used dispensing to pardon punishments for religious acts.<sup>39</sup> Notably, Parliament used its funding power to block attempts of Elizabeth I, James I, Charles I, and Charles II to dispense.<sup>40</sup></p>

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"That the commission for erecting the late Court of Commissioners for Ecclesiastical Causes, and all other commissions and courts of like nature, are illegal and pernicious"</p>	<p>Clause refers to a Commission of James II, whose authority rested on statutes of 1559, 1641, and 1661.<sup>41</sup> There was no basis in previous law to stop the monarch from administering religious matters. In fact, this clause did not change the legal authority of the monarch.<sup>42</sup> Constraints on the authority of the Commissions were stated in an Act of 1641 and confirmed in an Act of 1661 and this clause did not change the constraints.<sup>43</sup></p>	<p>The only effect of the clause is to stop the use of special commissions as constructed by James. The overall authority of the monarch in religious matters has lasted into modern times.<sup>44</sup></p>	<p>James' Commission was purely relevant to religious issues and was not a "court." It issued only ecclesiastical penalties and acted within existing law, if not existing accepted practice.<sup>45</sup></p>
<p>"That levying money for or to the use of the Crown by pretence of prerogative, without grant of Parliament, for longer time, or in other manner than the same is or shall be granted, is illegal"</p>	<p>Sovereignty over taxation was an undoubted ancient right of Parliament.<sup>46</sup> Established for extra-ordinary taxation in 1297.<sup>47</sup> "...before the middle of the fourteenth century it was definitely illegal for the king to impose a direct tax without the consent of parliament...before the end of the fourteenth century the contest [on indirect taxation] was at an end."<sup>48</sup> Neither Charles II or James II challenged this right of Parliament.<sup>49</sup> In the reign of Charles II, the Commons jealously protected its sole powers by rejecting Lords' attempts to amend money bills.<sup>50</sup></p>	<p>Unquestioned acceptance.</p>	<p>In debates on the Declaration of Rights, an argument against making the Declaration more ambitious was that Parliament could at a later date use its ultimate control over revenues to obtain what it needed.<sup>51</sup></p>
<p>"That it is the right of the subjects to petition the king, and all commitments and prosecutions for such petitioning are illegal"</p>	<p>A right that dated back to Magna Carta.<sup>52</sup> Petitioning was a major element of politics from the middle ages to Stuart times, and was encouraged by the monarch.<sup>53</sup> Petitions were so common under Charles II that legislation was passed to organize the process.<sup>54</sup> The Seven Bishops Trial of 1688 was partially concerned with the right to petition and that right was upheld.<sup>55</sup></p>	<p>Unquestioned acceptance.</p>	

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
"That the raising or keeping a standing army within the kingdom in time of peace, unless it be with consent of Parliament, is against law"	Standing Army unknown until 1645. <sup>56</sup> Charles II obtained limited permission early in the Restoration Parliament to keep a standing army—it had to be paid from his own resources. <sup>57</sup> Nevertheless, one of the articles of impeachment of Clarendon in 1667 was that he counseled the raising of a standing army. <sup>58</sup> During the late 1670's, Parliament disputed even Charles' small army and passed the Disbanding Act, which reduced it to very small force, with a size determined by Parliament. <sup>59</sup> Parliament exerted extremely detailed control over the disbanding process. <sup>60</sup> James II built a larger standing army. Parliament refused James funding for his standing army, which led him to prorogue Parliament, which did not meet again in his reign. <sup>61</sup>	This clause did not restrict armies outside the kingdom or in times of war. The monarch still had the right to declare war. <sup>62</sup> William had his own Dutch guard 1689-1699. <sup>63</sup> In 1697, he defied a Parliament vote to reduce the army's size. <sup>64</sup> In 1698 William defied parliament and kept many more troops than they had voted. <sup>65</sup> The crisis of 1697-9 resulted in a standing army monitored by Parliament. <sup>66</sup>	In the crisis of 1697-9, William could have vetoed a bill for disbanding the army, could have dissolved parliament, or could have enlisted the support of the Lords to defeat the bill. <sup>67</sup> It was Commons control over the purse that was the critical factor in enforcing this provision, not the legal position created by the Bill of Rights, <i>per se</i> . <sup>68</sup> "It should be noted that what hampered the King's subterfuge was his inability to pay." <sup>69</sup> The mechanism of controlling the size of the army was, therefore, exactly the same as under Charles II and James II, notwithstanding this clause.
"That the subjects which are Protestants may have arms for their defence suitable to their conditions and as allowed by law" <sup>70</sup>	Essentially restates existing law as a right, but in restricting to Protestants, lessened existing rights. "as allowed by law" connects the measure to previous legislation. <sup>71</sup> For example, "suitable to their conditions" implies a restriction to certain classes, as embodied in the Game Act of 1671. <sup>72</sup>	In debates on the Game Act of 1693, Parliament decisively rejected a clause that would have allowed all Protestants to keep muskets. <sup>73</sup> Blackstone interprets the right as only existing when law fails to control an oppressive government. <sup>74</sup> Protests throughout the 18 <sup>th</sup> century on restrictions on guns make it clear that the right was not general. <sup>75</sup>	
"That election of members of Parliament ought to be free"	The Statute of Westminster of 1275 stated "...because elections ought to be free, the King commandeth...that no Man...shall disturb any to make free Election." <sup>76</sup> 1604 case: Commons was in charge of its own elections. <sup>77</sup> Held as an undoubted right in the reign of Charles II. <sup>78</sup>	The Statute of Westminster is still in force. <sup>79</sup>	

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
"That the freedom of speech and debates or proceedings in Parliament ought not to be impeached or questioned in any court or place out of Parliament"	Right recognized by Henry VI in 1455. <sup>80</sup> Legislated in 1512, including immunity against suit and protection against punishment. <sup>81</sup> Fully recognized by Elizabethan times and confirmed by James I. <sup>82</sup> Reaffirmed by Parliament in 1661 and the courts in 1668, the latter pronouncing that "words spoken in Parliament cannot be dealt with out of Parliament". <sup>83</sup>	1512 act still in force. <sup>84</sup> "In 1624 James I had permitted the House of Commons free speech on all subjects. Since then every attempt at direct interference had failed." <sup>85</sup>	
"That excessive bail ought not to be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted"	"Excessive bail" fills gaps left by the Habeas Corpus Act of 1679, <sup>86</sup> which itself reflected elements of Magna Carta. <sup>87</sup> Right to bail historically established, but left to judges' discretion. <sup>88</sup> Restrictions on punishment date from time of Magna Carta and were embodied in statutes in 1553 and 1641. <sup>89</sup>	Bills of Attainder still possible. Suspension of Habeas Corpus only one month after the adoption of the Declaration of Right. <sup>90</sup> Suspended again twice in 1689, and then in 1696, 1708, 1715, 1722, 1745, 1794, 1798-1801, and 1817. <sup>91</sup>	Culmination of centuries of legal developments. Best viewed as correcting defects in existing law
"That jurors ought to be duly impanelled and returned, and jurors which pass upon men in trials for high treason ought to be freeholders"	Only element that was not an ancient right was the insistence on freeholder juries for treason cases. <sup>92</sup>	Unquestioned acceptance.	The Treason Act of 1695 was vastly more important in constraining the government's use of treason trials.
"That all grants and promises of fines and forfeitures of particular persons before conviction are illegal and void"	Such grants and promises were "... condemned by medieval statutes and denounced as illegal by distinguished lawyers." <sup>93</sup> A restatement of existing law, settled in the early seventeenth century, although there had been violations. <sup>94</sup>	Did not prevent the monarch (or his agents) from seizing property before conviction. At best, made seizures less efficient and therefore less attractive.	Issue was solely whether the King could grant the pre-conviction seizure right in treason cases to others. Outlawed 'farming' of pre-trial property seizures.

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
"And that for redress of all grievances, and for the amending, strengthening and preserving of the laws, Parliaments ought to be held frequently."	Ordinances of 1311 said that Parliament should meet yearly. <sup>95</sup> Yearly parliaments legislated in 1330—legislation that has never been repealed, meaning that yearly parliaments were in fact legally required. <sup>96</sup> The Triennial Act of 1642 dictated parliaments every three years. Re-affirmed by Triennial Parliaments Act of 1664. <sup>97</sup> (Violated by Charles II in 1684 and James II in 1688.)	Parliaments have met every year since 1689, more often than required by any of the legislation at this time and more than envisaged by Parliament in 1689. <sup>98</sup> With the Septennial Act of 1715, a recently elected parliament extended its life to seven years. <sup>99</sup> Reduced to five years in 1911. <sup>100</sup>	"Frequently" makes this more vague than the Triennial Parliaments Act of 1664, which was superseded by the Triennial Act of 1694.

#### Notes for Table 4

<sup>1</sup> William and Mary, 1688: An Act declaring the Rights and Liberties of the Subject and Settling the Succession of the Crowne. [Chapter II. Rot. Parl. pt. 3. nu. 1.], Statutes of the Realm: volume 6: 1685-94 (1819), pp. 142-145. URL: <http://www.british-history.ac.uk/report.aspx?compid=46322> Date accessed: 11 July 2009.

<sup>2</sup> 1327: Parliament forces Edward II to abdicate the throne; 1399: Richard II forced to resign by Henry IV and Parliament declares a vacancy and legislates on the successor; 1483: Parliament plays a role in declaring Edward V to be illegitimate and endorsing Richard III; 1485: Henry VII calls on Parliament to endorse his accession formally; 1649: Parliament removes Charles I; 1660: Parliament's role fundamental in the restoration.

<sup>3</sup> McIlwain (1910, p.109, p.352)

<sup>4</sup> Horwitz (1977, pp. 6-8). The precedent of 1399 was important in the parliamentary debates, since Richard II was viewed as having resigned the crown and government and thus allowed Parliament to declare a vacancy, in a situation with rough parallels to 1689. (Cherry 1956, p. 399)

<sup>5</sup> Test Acts (1673, 1678); Maer, (2009, p. 9).

<sup>6</sup> Carruthers, (1996, p. 44)

<sup>7</sup> Maer (2009, p. 4)

<sup>8</sup> Maer (2009, p. 9)

<sup>9</sup> Maer (2009)

<sup>10</sup> Maer (2008); Maer (2009)

<sup>11</sup> See Royal Marriages and Succession of the Crown (Prevention of Discrimination) Bill, 2009-08

<sup>12</sup> Jones (1992, p.29) ; Horwitz,(1977); Morris (1998 p. 25)

<sup>13</sup> Jones (1992, p. 29)

<sup>14</sup> Miller (1992, p.60)

<sup>15</sup> Refers to Test Act of 1678; see Statutes of the Realm (1819b)

<sup>16</sup> Maitland (1931, p. 306).

<sup>17</sup> Kenyon (1969, p. 40, p. 402, p. 424) , Edie (1985, p. 217, p. 222)

<sup>18</sup> Jones (1992, p. 15); Kenyon (1969, p. 409)

<sup>19</sup> Kenyon (1969, p. 402); Miller (2000, p. 165)

<sup>20</sup> Maitland (1931 p. 305).

<sup>21</sup> Schwoerer (1981, p. 64) ; Miller (2000, p. 165)

<sup>22</sup> Edie (1985, p.199), Maitland (1931 p. 180).

<sup>23</sup> Jones (1992, p. 15)

<sup>24</sup> Miller (1992, p. 56)

<sup>25</sup> Nenner (1992, p. 92) .

<sup>26</sup> Edie (1985, p. 202)

<sup>27</sup> Edie (1985, p.207)

<sup>28</sup> Kenyon (1969, p. 402); Edie (1985, p. 217)

<sup>29</sup> Edie (1985, p. 218)

<sup>30</sup> Edie (1985, p. 225)

<sup>31</sup> Edie (1985, p. 226)

---

<sup>32</sup> Schwoerer (1981, p. 62 – 63); Edie (1985, p. 227)

<sup>33</sup> Kenyon (1969, p. 402)

<sup>34</sup> Lawson (1986, p. 33).

<sup>35</sup> Schwoerer (1981, p. 60); Edie (1985, p. 199)

<sup>36</sup> Schwoerer (1981, p. 60)

<sup>37</sup> Edie (1985, p. 199)

<sup>38</sup> Edie (1985, p. 199)

<sup>39</sup> Schwoerer (1981, p. 59)

<sup>40</sup> Schwoerer (1981, p. 61-62)

<sup>41</sup> Act of Supremacy (1559), Act Abolishing the Court of High Commission (1641), Ecclesiastical Commission Act (1661). See Stephenson and Marcham (1937).

<sup>42</sup> Schwoerer (1981, p. 65)

<sup>43</sup> Stephenson and Marcham (1937).

<sup>44</sup> The pertinent elements of the Act of Supremacy are still in force. See UK Statute Law Database (2009a)

<sup>45</sup> Schwoerer (1981, p. 65)

<sup>46</sup> Prestwich, (1990, p. 5-6)

<sup>47</sup> Roseveare (1969, p. 30-31)

<sup>48</sup> Maitland (1931, p. 180)

<sup>49</sup> Schwoerer (1981, p. 66-69).

<sup>50</sup> Kenyon (1969, p. 413)

<sup>51</sup> Horwitz (1977, p. 86 )

<sup>52</sup> Clause 61. Medieval Sourcebook (2009)

<sup>53</sup> Hoyle (2002). The UK National Archives (2009) retains images of 17,000 petitions presented between the reigns of Henry III and James I.

<sup>54</sup> Schwoerer (1981, p. 70)

<sup>55</sup> Schwoerer (1981, p. 69-70) ; Nenner (1992, p. 114)

<sup>56</sup> Schwoerer (1974, p. 2 )

<sup>57</sup> Miller (1992, p. 57); Schwoerer (1974, p. 72)

<sup>58</sup> Hallam (1859, p. 441)

<sup>59</sup> Schwoerer (1974, p. 121-132 )

---

<sup>60</sup> Kenyon (1986, p. 363)

<sup>61</sup> Schwoerer (1974, p. 143-45); Horwitz (1977, p. 4)

<sup>62</sup> Horwitz (1977, p. 87)

<sup>63</sup> Schwoerer (1966, p. 91-3)

<sup>64</sup> Schwoerer (1966, p. 86-7)

<sup>65</sup> Schwoerer (1966, p. 87)

<sup>66</sup> Dickinson (2002, p. 473-474)

<sup>67</sup> Jones (1992, p. 33 )

<sup>68</sup> Macaulay (1915. p. 287-9) "No good would have been done by rejecting the bill for disbanding the troops, unless the King could have been furnished with the means of maintaining them; and with such means he could be furnished only by the House of Commons."

<sup>69</sup> Schwoerer (1966, pp. 88)

<sup>70</sup> Schwoerer (1981, p. 74)

<sup>71</sup> Schwoerer (1981, p.74)

<sup>72</sup> Schwoerer (1981, p.78)

<sup>73</sup> Schwoerer (1981, p.78)

<sup>74</sup> Blackstone (1769, Book 1 Chapter 1)

<sup>75</sup> Schwoerer (2000, p. 51-55)

<sup>76</sup> Statute of Westminster, The First (1275). UK Statute Law Database (2009d)

<sup>77</sup> Fritze and Robison (p. 212-213)

<sup>78</sup> Jones (1992, p.14), Schwoerer (1981, p.79-82)

<sup>79</sup> Statute of Westminster, The First (1275). UK Statute Law Database (2009d)

<sup>80</sup> See Stephenson and Marcham (1937) on the petition of Thomas Young.

<sup>81</sup> Privilege of Parliament Act 1512. UK Statute Law Database (2009b)

<sup>82</sup> Elton (1989) pp 341-342; Hulme (1956, p. 853).

<sup>83</sup> The Act referred to is the Treason and Seditious Practices Act (Schwoerer, 1981, p. 82-83). Mummery (1978 p. 281)

---

<sup>84</sup> Privilege of Parliament Act 1512. UK Statute Law Database (2009b)

<sup>85</sup> Hulme (1956, p. 853).

<sup>86</sup> The full text of the Habeas Corpus Act of 1679 can be found online at Statutes of the Realm (1819a)

<sup>87</sup> Schwoerer (1981, pp. 87-92) , Clauses 36, 38, 39, and 40 of the Magna Carta are relevant for Habeas Corpus. Clause 36: Nothing in future shall be given or taken for a writ of inquisition of life or limbs, but freely it shall be granted, and never denied. Clause 38. No bailiff for the future shall, upon his own unsupported complaint, put any one to his "law," without credible witnesses brought for this purpose. Clause 39. No freeman shall be taken or imprisoned or disseised or exiled or in any way destroyed, nor will we go upon him nor send upon him, except by the lawful judgment of his peers or by the law of the land. Clause 40. To no one will we sell, to no one will we refuse or delay, right or justice. Medieval Sourcebook (2009)

<sup>88</sup> Schwoerer (1981, p. 88)

<sup>89</sup> Schwoerer (1981, p. 91-92)

<sup>90</sup> Horwitz (1977, p. 21); Crawford, (1915)

<sup>91</sup> Crawford (1915, p. 615). Elmsley (1985, p. 825)

<sup>92</sup> Schwoerer (1981, p. 94)

<sup>93</sup> Miller (1992, p. 82)

<sup>94</sup> Schwoerer (1981, p. 96)

<sup>95</sup> McIlwain (1910)

<sup>96</sup> Maitland (1931, p. 177-8)

<sup>97</sup> Kenyon (1969, p. 361)

<sup>98</sup> Horwitz (1977, p. 88)

<sup>99</sup> UK Statute Law Database (2009c)

<sup>100</sup> UK Statute Law Database (2009c)

**Table 5: Precedent and Survival in the Clauses of the Act of Settlement**

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, suspended, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"...Princess Sophia, Electress and Duchess Dowager of Hanover,...is hereby declared to be the next in succession...after His Majesty, and the Princess Anne of Denmark, and in default of issue of the said Princess Anne, and of His Majesty respectively...[and then to] the heirs of her body, being Protestants"</p>	<p>Reinforced Parliament's use of religious criteria to set the line of succession.</p>	<p>Sophia's son becomes George I in 1714, from whom all subsequent English monarchs are descended.</p>	
<p>"That whosoever shall hereafter come to the possession of this Crown, shall join in communion with the Church of England, as by law established"</p>	<p>A further increment in the exclusion of Catholics from power. The Bill of Rights of 1689 extended to the monarchy previous legislation that had excluded Catholics from office, but the Bill did not mention communion, which had been a stipulation for all office holders in the Test Act of 1673.<sup>2</sup> This clause extends that provision of that Test Act to the monarchy. The Coronation Oath Act 1688 had already stipulated that all future monarchs should swear an oath to "maintaine the laws of God the true profession of the Gospell and the Protestant reformed religion established by law".<sup>3</sup></p>	<p>William was a dissenter, and George I had not been raised as an Anglican.<sup>4</sup> Effective in 1714; implementation not certain until then.<sup>5</sup></p>	



Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, suspended, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
"That in case the Crown...shall hereafter come to any person, not being a native of this Kingdom of England, this nation be not obliged to engage in any war for the defence of any dominions or territories which do not belong to the Crown of England, without the consent of Parliament."	A reaction to William's European wars in protection of the Dutch nation. <sup>6</sup> The Commons used the precedent of the Act for the Marriage of Queen Mary to Philip of Spain of 1554. <sup>7</sup>	Effective in 1714; implementation not certain until then. Relevant only from 1714 to 1760. <sup>8</sup> By defending their own interests in Hanover, George I and George II were widely considered to be acting unconstitutionally, especially during 1717-18 and 1742-45. <sup>9</sup>	
"That no person who shall hereafter come to the possession of this Crown, shall go out of the dominions of England, Scotland, or Ireland, without the consent of Parliament"	A reaction to William's absences. A similar clause was in the Ordinances of 1311, which were repealed in 1322. <sup>10</sup>	Effective in 1714; implementation not certain until then. Repealed in 1716. <sup>11</sup>	George I requested repeal and then abused the freedom that it gave him, being absent for half of 1716, and again in 1719, 1720, 1723, 1725–6, and 1727. <sup>12</sup>
"...all matters and things relating to the well governing of this Kingdom, which are properly cognizable in the Privy Council by the laws and customs of this Realm, shall be translated there, and all resolutions taken thereupon shall be signed by such of the Privy Council as shall advise and consent to the same"	Parliament's attempt to exert greater control over the King's ministers. <sup>13</sup>	To be effective in 1714, but repealed in 1705, before it became effective. <sup>14</sup> Had this provision not been repealed the development of government in England would have been radically different, given the implied inhibitions on Cabinet government. <sup>15</sup>	A failed attempt to solve a problem, which was solved later through a Hayekian process. "...A later age discovered a remedy for these evils, through transferring to Parliament, by a very circuitous process, the nomination of Ministers. This remedy was brought about by indirect means, and through a combination of circumstances which no wisdom could have foreseen." <sup>16</sup>

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, suspended, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"...no person born out of the Kingdoms of England, Scotland, or Ireland... (although he be naturalized or made a denizen, except such as are born of English parents) shall be capable to be of the Privy Council, or a member of either House of Parliament, or to enjoy any office or place of trust, either civil or military, or to have any grant of lands, tenements or hereditaments from the Crown, to himself or to any other or others in trust for him"</p>	<p>A reaction against William's Dutch advisers and of his land grants in Ireland to his followers. The Commons used the precedent of the Act for the Marriage of Queen Mary to Philip of Spain of 1554.<sup>17</sup> Some restrictions on aliens already in Common Law. This clause broadened restrictions and removed the possibility that these restrictions could be circumvented by naturalization.<sup>18</sup></p>	<p>Effective in 1714; implementation not certain until then. Clause strengthened in 1714 by a law specifying that naturalization had to be accompanied with a condition that the new citizen could not sit in Parliament.<sup>19</sup></p>	
<p>"That no person who has an office or place of profit under the King, or receives a pension from the Crown, shall be capable of serving as a member of the House of Commons"</p>	<p>Commons' reaction against William's attempts to heavily influence the workings of the House.<sup>20</sup></p>	<p>Greatly weakened by statute in 1705-1707, so that the crown had ample scope to give appointments to those in the Commons.<sup>21</sup> Holders of offices created before 1705 could resign from Parliament and then be re-elected.<sup>22</sup> Later, some holders of newly created offices were exempted from this provision.<sup>23</sup> The re-election stipulation was removed in 1926.<sup>24</sup></p>	<p>By the nineteenth century, relevant rules were spread over 116 statutes.<sup>25</sup> "Had [this clause] ever come into play it must have altered the whole history of the House of Commons; no minister of the king would ever have been able to sit there."<sup>26</sup></p>

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, suspended, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"...judges commissions be made <i>quamdiu se bene gesserint</i>, and their salaries ascertained and established; but upon the address of both Houses of Parliament it may be lawful to remove them"</p>	<p>James I dismissed only one judge, Coke, for political reasons.<sup>27</sup> Charles I accepted <i>quamdiu se bene gesserint</i> in 1641 and abided by it.<sup>28</sup> Cromwell accepted all sitting judges and appointed judges <i>quamdiu se bene gesserint</i>.<sup>29</sup> Charles II accepted <i>quamdiu se bene gesserint</i> from 1660-1672.<sup>30</sup> James egregiously violated it. A stronger version of this clause was omitted from the Bill of Rights even though it was in the first draft of the Declaration of Rights,<sup>31</sup> but William abided by <i>quamdiu se bene gesserint</i>. William vetoed a bill in 1692 to establish <i>quamdiu se bene gesserint</i> because the bill charged the judges' salaries to his hereditary revenues.<sup>32</sup> An act of 1696 made all appointments last for six months while a new monarch replaced an old one.<sup>33</sup></p>	<p>Effective in 1714; implementation not certain until then. Appointments could be ended on accession of a new monarch until 1761.<sup>34</sup> On death of William III, all judges resigned, all but two being reappointed.<sup>35</sup> Judicial appointments were also terminated in 1714 (3), and 1727 (1).<sup>36</sup> Monarch paid part of the salaries of judges until 1761.<sup>37</sup> After 1714, judges still receive much pay from litigants.<sup>38</sup> Clause interpreted as applying to superior court judges and not to lower level courts.<sup>39</sup></p>	<p>Most significant clause of the Act that directly relates to property rights or government finance.</p>

Clause <sup>1</sup>	Precedents, degree of novelty	Survival? Repealed, suspended, limited, or in force unconditionally?	Comments; direct legal relevance to property rights and government finance
<p>"That no pardon under the Great Seal of England be pleadable to an impeachment by the Commons in Parliament."</p>	<p>Impeachment of the King's ministers occurred many times in the seventeenth century without intervention by the monarch.<sup>40</sup> In 1678, the Commons voted to impeach Danby, a minister of Charles II. Charles dissolved Parliament in order to save Danby from the trial. The new Parliament resumed the case and after Charles issued a pardon to stop the trial the Commons declared in April 1679 "that there was no precedent that ever any pardon was granted to any person impeached by the commons of high treason, or other high crimes, depending the impeachment"<sup>41</sup> a claim that seems to have been valid.<sup>42</sup> Charles dismissed Danby, but this did not appease Parliament: Danby was eventually imprisoned.<sup>43</sup> This clause was included in the first draft, but not the final version, of the Declaration of Rights.<sup>44</sup> On 6 June 1689, the Commons restated their previous claim: "that a pardon is not pleadable in bar of an impeachment."<sup>45</sup> William III did not attempt to pardon any impeachments.<sup>46</sup> Before 1701 there was no claim that a king was prevented from issuing a pardon after the trial in the Lords.<sup>47</sup></p>	<p>Some later debate over whether the restriction was solely during the impeachment process. George I issued pardons after an impeachment in 1715,<sup>48</sup> which Whigs thought inconsistent with his powers under their interpretation of this clause of the Act. Blackstone provides an interpretation inconsistent with that of the Whigs and consistent with pre-1701 practice.<sup>49</sup></p>	

## Notes for Table 5

<sup>1</sup> The official name of the act is "An Act for the further Limitation of the Crown and better securing the Rights and Liberties of the Subject" Source for clauses is the Statutes of the Realm: Volume 7, 1695-1701 (1820) <http://www.british-history.ac.uk/report.aspx?compid=46986>, Date accessed: 09 July 2009

<sup>2</sup> Maer (2009 p. 8)

<sup>3</sup> Maer and Gay (2008 p. 3). See "William and Mary, 1688: An Act for Establishing the Coronation Oath. [Chapter VI. Rot. Parl. pt. 5. nu. 3.]", *Statutes of the Realm: volume 6: 1685-94* (1819), pp. 56-57. URL: <http://www.british-history.ac.uk/report.aspx?compid=46292&strque ry=Coronation> Oath Act 1688 Date accessed: 09 July 2009.

<sup>4</sup> Morris (1998, p. 105)

<sup>5</sup> Applies to most clauses of the Act of Settlement, which states that a limitation of many aspects of its application is "after the death of His Majesty and the Princess Anne of Denmark, and in default of issue of the body of the said Princess, and of His Majesty respectively", which ex post meant 1714, but at the time was uncertain.

<sup>6</sup> Tarkow (1943 p. 546); Horwitz (1977 p. 283)

<sup>7</sup> Horwitz (1977 p. 283); for the relevant portion of the Act, see Adams and Stephens (1916 p. 287).

<sup>8</sup> George III and all subsequent monarchs were born in Britain.

<sup>9</sup> Simms and Riotte (2007 Ch. 9)

<sup>10</sup> Prestwich (2005 p.178-184)

<sup>11</sup> Simms and Riotte (2007 p. 203)

<sup>12</sup> Hatton (1978 p. 158)

<sup>13</sup> Tarkow (1943 p. 547-551)

<sup>14</sup> Townsend (1877 p. 12)

<sup>15</sup> Dicey (1877 p. 138)

<sup>16</sup> Dicey (1877 p. 138)

<sup>17</sup> Horwitz (1977 p. 283); for the relevant portion of the Act, see Adams and Stephens (1916 p. 286).

<sup>18</sup> Tarkow (1943 p. 551-553)

<sup>19</sup> Tarkow (1943 p. 553)

<sup>20</sup> Horwitz (1977 p. 283)

<sup>21</sup> Townsend (1877 p. 12)

<sup>22</sup> Pugh (2002 p. 351)

<sup>23</sup> Maitland (1931 p. 292)

<sup>24</sup> Rosevare (1969) p. 73; Pugh (2002 p. 352)

<sup>25</sup> Townsend (1877 p. 12)

<sup>26</sup> Maitland (1931 p. 292)

<sup>27</sup> Johnson (1837 p. 334)

<sup>28</sup> Haynes (1944 p. 63)

<sup>29</sup> Black (1976). Firth and Rait (1911 pp. 1226-1227)

<sup>30</sup> McIlwain (1913 p. 223); Haynes (1944 p. 72)

<sup>31</sup> Horwitz (1977 p. 366-7)

<sup>32</sup> Horwitz (1977 p. 75-76), Prest (1991 p. 85)

<sup>33</sup> McIlwain (1913 p. 224); 7 & 8 W.III. c. 27. § 20

<sup>34</sup> Prest (1991 p. 82)

<sup>35</sup> Jay (1997 p. 20-21); Klerman and Mahoney (2005 p. 11)

<sup>36</sup> Klerman and Mahoney (2005 p. 11-12); Haynes (1944 p. 79)

<sup>37</sup> May (1896 p. 243)

<sup>38</sup> Prest (1991 p. 87)

<sup>39</sup> Jennings (1933 p. 216-217)

<sup>40</sup> For example Mompesson, Michell and Bacon (1621), Middlesex (1624), Buckingham (1626), Strafford (1641), Laud (1645), and Clarendon (1667). See Tarkow (1943 p. 559).

<sup>41</sup> Blackstone (1769 p. 392)

<sup>42</sup> Harris (2006 p. 177)

<sup>43</sup> Lodge (1910 p 158-160), Tarkow (1943 p. 559-560)

<sup>44</sup> Horwitz (1977 p. 366-7)

<sup>45</sup> Blackstone (1769 p.392)

<sup>46</sup> Horwitz (1977) *passim*.

<sup>47</sup> Hallam (1827 p. 466-7). Blackstone (1769 p.392)

<sup>48</sup> Blackstone (1769 p.392)

<sup>49</sup> Blackstone (1769 p. 392-393)

**Table 6: Institutional and Administrative Developments Relevant to Public Finance in England**

Year	Administrative or Legal Development	Source	Description
1215	Magna Carta		Specifies that the King should obtain the common counsel of the kingdom for extraordinary taxation, where that counsel should be in the form of an assembly of archbishops, bishops, abbots, earls, and barons, the forerunner of Parliament.
1297	Principle of representative consent to taxation	Roseveare, 1969, pp. 30-31	Edward I concedes the principle of representative consent to extra-ordinary taxation
1298	Parliament asserts right to oversee tax collection	Ertman , 1997, p. 174	Parliament asserts its rights to have a commission of inquiry to investigate the collection of taxes by Edward I's officials.
1311	Parliament affirms that its assent is required on a wide range of issues, including taxation.	Prestwich, 2005, pp. 178-184	Ordinances of 1311 declare parliamentary consent necessary for wide range of items, including taxation. Ordinances specifically name Parliament as the body that provides assent. Institutes the requirement that the King should live off his own resources, creating a division between the King's finances and the nation's and channeling the King's revenues through the exchequer.
1322 1340	The legal basis of Parliamentary control of the nation's finances effectively settled.	Prestwich, 2005, p. 205; Roseveare, 1969, pp. 30-1	The ordinances of 1311 were repealed in 1322, but at the same time the repeal confirmed that legislation could only passed by the King in Parliament. Parliament reasserted some of its power in a 1340 Statute with control over taxation of the royal land and customs. The issue of Parliamentary control of the nation's purse was resolved by this time. "On the whole, therefore, before the middle of the fourteenth century it was definitely illegal for the king to impose a direct tax without the consent of parliament...The legislation on this subject of indirect taxation is not quite so emphatically clear as that which forbad direct imposts—some loopholes were left—still we may say that before the end of the fourteenth century the contest was at an end." Maitland (1931, p. 180)
1407	Commons superior to Lords on tax and spending issues	Hearn 1886, p. 381; Perceval, 1951	Legal settlement of the modern procedure that all grants of financial supply must originate in the Commons and the King is to abide by all the conditions attached to financial legislation. The Lords can still make amendments to financial legislation.

Year	Administrative or Legal Development	Source	Description
1300's and 1400's	Parliament asserts rights to dictate use of taxes and audit that use	Maitland 1931, pp. 182-4	Parliament claims the power to direct the use of financial supplies. To implement this, Parliament begins to demand the production of the royal accounts (in 1340 and 1341). In 1377 parliament appointed officials to receive and expend money voted for the war. In 1379 the king presented his accounts. From then on, treasurers were often appointed in parliament to account for expenditures to the next parliament.
1554	Exchequer given more power	Roseveare, 1969, pp. 41	Exchequer restored and given more power to audit and control revenue
1610	Proposal by the King for greater Parliamentary control over revenues	Roseveare, 1969, p. 47-48	James I proposes 'Great Contract' to help the King pay off debts and to make the nation's finances more secure. In return, Parliament would gain control over sources of revenue that had been traditionally under control of the crown. This proposal failed, beginning the process by which the early Stuart kings sought ever more dubious and unpopular means of funding their activities.
1624	Parliamentary control of appropriations for King's war	Roseveare, 1969, p. 50; Cross 1914, p. 447; Turner 1919, p. 174	Parliament appropriated money for war with the Hapsburgs, but set the conditions that the money should be handled by treasurers accountable to Parliament. This was a revival of the medieval principle of appropriation, by which the King was to be accountable to Parliament for specific uses of financial supplies. At the same time, Parliament through the power of the purse was granted an advisory role in foreign policy, including on treaties. The principle of appropriation became more and more used as the seventeenth century proceeded.
1635-1640	The failure of prerogative taxation	Langelüddecke (2007)	During the 1630's, when he was trying to rule without Parliament, Charles I resorted to a medieval charge, Ship Money, to finance the navy. This was the last attempt of a monarch to raise large sums without Parliamentary sanction. For this reason, the tax was deeply unpopular and there were large difficulties in collecting it. Political objections arose from local officials and those taxed based on the fact that the tax did not have Parliamentary consent. The tax failed in its objectives: no county fully met the final assessment of 1639-40 and only 21% was collected within that tax year. In Hampden's case, the exchequer judges ruled 7-5 that the tax was legal. In 1641, when Parliament was recalled, the tax was declared unconstitutional.

Year	Administrative or Legal Development	Source	Description
1640-1660	Customs becomes a Parliamentary tax	Wheeler, 1999, p. 120, 144	Customs revenues were previously part of the King's ordinary income and Parliamentary oversight of them was unconstitutional. In the 1640's, Parliamentary control over customs was asserted and from that time on the customs were part of the nation's income, not the monarch's. In 1660, customs became a tax granted for the life of a monarch, but tax rates could only be changed by Parliament. The medieval principle of appropriation now was applicable to customs. During the Restoration Parliament asserted its right to intervene in the management of the customs accounts.
1640's 1650's	Reform and professionalization of the customs administration	Wheeler, 1999, p. 120, 144	Parliament became deeply involved in the management of the customs. Administrative personnel collecting the customs became a state bureaucracy. Rising professionalization in customs administration from 1540 to 1671. These reforms shaped the nature of the customs administration into the late eighteenth century.
1643	Parliament levies excise tax	Wheeler, 1999, p. 148; Dickens 1967, p. 42	The first time an excise tax was used, a tax that was under complete Parliamentary control from its beginning. Based on Dutch experience. Soon becomes a more important source of revenues than the customs.
1643	Assessment created (Land Tax)	Wheeler, 1999, p. 173	Eventually becomes largest source of Parliamentary revenue. Becomes the Land Tax in 1690s.
1640's 1650's	Prerogative revenue collection ended	Wheeler, 1999, p. 198	The Long Parliament removed the fiscal prerogatives of the crown and the monarch's use of non-parliamentary impositions.
1640's 1660's	Parliament creates control mechanisms	Wheeler, 1999, p. 199	During the rule by the Long Parliament, it established committee mechanisms to control finances. In the Restoration, these were taken over by the Treasury.
1660	King's own revenues no longer significant	Wheeler 1999, p. 173	From the time of Elizabeth I on, the monarch's own revenues had declined, in accelerated fashion because of the sale of Crown lands. By 1660, these revenues were only a minor part of the nation's (less than 10%, down from 25% in the early part of James I's reign).
1660-1663	Repeated use of excise and assessment	Roseveare, 1969, p. 55, Wheeler, 1999, p 171	These two new taxes became a standard part of the nation's finances, with Parliament willing to raise extra revenue in time of need. They replaced the use of ad hoc taxes on the wealthy that had been common in medieval and Tudor times.



Year	Administrative or Legal Development	Source	Description
1665	Additional Aid Act	Roseveare, 1973, p. 24-25; Nichols 1971, pp. 97-98; Carruthers 1996, p. 61, 126; Kenyon 1986, pp. 362-3; Jones, 1988, p. 67	Notable for several reasons. First the money was appropriated by Parliament for a specific purpose, reviving the principle of appropriation. Second, Parliament insisted that revenues were to go through the Exchequer and records of expenditures were open to the public. Third, specific revenues were dedicated to repayment for debts incurred for these expenditures. The practice of earmarking was introduced. Fourth, lenders were to receive Treasury assignable promises of repayment (orders) (the basis for which already existed in Common Law). Records of the orders were to be open to the public. Fifth, this system of Orders meant that Parliamentary credit had replaced the credit of the King as a way to finance extraordinary needs.
1665-1683	Additional Treasury offices added	Roseveare, 1969, p. 71	New agencies added to improve collecting of revenue, the Office of Taxes (1665), the Commissioners of the Customs (1671), and the Commissioners of the Excise (1683)
1667	The Treasury placed under the control of commissioners, led by George Downing. They reform financial management.	Roseveare, 1969 ch. 3, Roseveare, 1973, p 31-33, 36; Horsefield 1982. Carruthers 1996, p. 82	Downing's commission, importing ideas from the Dutch, pursued the goal of having all ordinary revenue pass through the Exchequer under Treasury supervision, which was essentially achieved by 1668. (Extraordinary revenue already did.) The Treasury Order system was instated for all principle sources of revenue and all Orders were made legally transferable. The record of all Orders was opened to the public. New record-keeping procedures were adopted. Treasury began to try to regulate the terms of government borrowing and to administer the system of revenue-farm contracts. This was the beginning of the rise of the Treasury to the status of the most important department of government, a position secured in the reign of Anne.
1667	Parliament changes the way financial proposals are handled	Roseveare, 1973, 54-55	Parliament introduced two new rules in order to curb the Crown's influence on financial matters. Financial proposals must be debated before the whole house and an interval of time must elapse between proposal and debate
1667	Treasury given control over spending	Roseveare, 1973, p 37	From now on, even if a department had authorization to spend a sum of money from monarch or Parliament, it must still submit to the Treasury for permission to do so. This fundamental rule of Treasury control is still in existence.
1668	Treasury control over revenues and expenditures reaffirmed.	Ertman, 1997, p. 97; Roseveare, 1969, p 63-64; Roseveare, 1973, p 27	Order of the Privy Council restates exclusive treasury control of revenue and departmental expenditure and gives the Treasury autonomy against government departments and the Privy Council itself. Treasury control continuously in place from this date on. "Not until 1920 was the Treasury's place in the machinery of government more strikingly affirmed." (Roseveare 1973, p. 27).

Year	Administrative or Legal Development	Source	Description
1668	Commons demands right to specify use of ordinary revenue	Roseveare, 1973, 54	Commons began to demand the right to appropriate (that is, designate the purpose) all of the Crown's revenue, especially customs (not just extraordinary supply).
1660's and 1670's	Parliament begins to specify the terms of debts.	Nichols, 1971, pp. 97-98; Rosevare, 1973, p 36, 40; Rosevare, 1969 p 67	Parliament passed extraordinary revenue measures, dictating their use, allowing these revenues to be designated for repayment of loans given on the basis of these revenues, and specifying the interest rates to be used for loans based on these measures.
1671, 1683	Customs and excise collection taken out of farming and under government supervision	Roseveare, 1969, p 65; Jones 1988, p. 67; Carruthers 1996, p. 82	Customs (1671) and excise (1683) revenue collection were placed under direct government supervision, rather than being contracted to revenue farmers. The excise and customs bureaucracies gradually become the centers of administrative and financial expertise in the Treasury.
1671	Commons asserts rights over the Lords on financial measures	Hearn, 1886, p. 381, Roseveare, 1973, p 54-55	The House of Lords could no longer change the terms of financial bills.
1672	Stop of the Exchequer	Horsefield, 1982; Ertman, 97, p. 199	Unilateral suspension of a specific set of debt repayments by Charles II. Although an important blow to Charles' credibility, it is important to note that the system of Parliamentary-backed Treasury Orders was not discredited by this action. See text.
1676	Treasury's autonomy in controlling expenditure increased	Roseveare 1973, p. 19	Treasury was given the autonomy to reduce departmental expenditures without requiring an order of the Privy council.
1678/9	Parliament uses finance to control army's disbanding	Kenyon, 1986, pp. 363; Roseveare, 1973, 56	When voting funds for the disbanding of the Army, Parliament specified the exact manner in which this was to be carried out, effectively by-passing the King in giving instructions to the Treasury on how funds were to be used. Parliament even specified dates, specific regiments, and the order in which they were to be demobilized.

Figure 1: Estimated breakdates from all available data sets



Figure 2: Estimated breakdates that are statistically significant

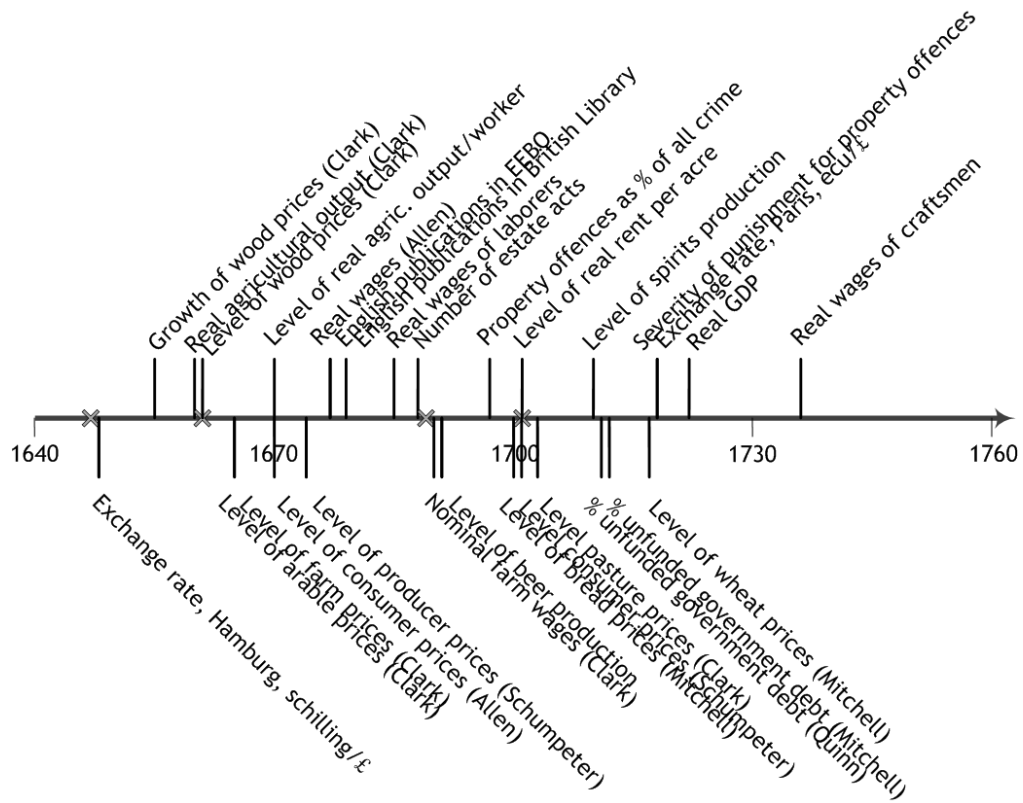


Figure 3: Confidence intervals for estimated breakdates ordered by estimated breakdate

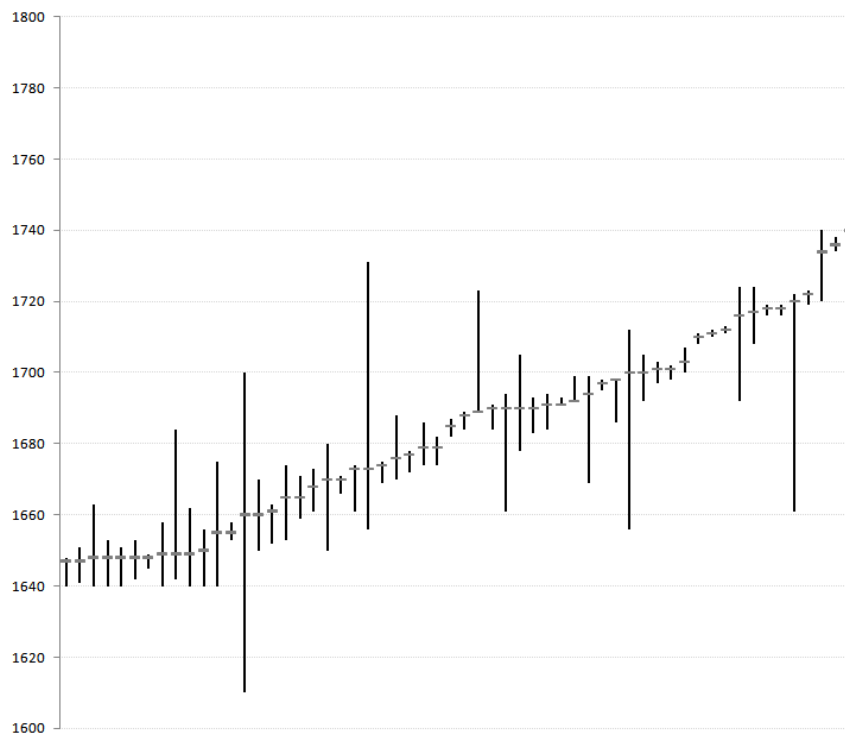


Figure 4(a): Estimated breakdates for production data

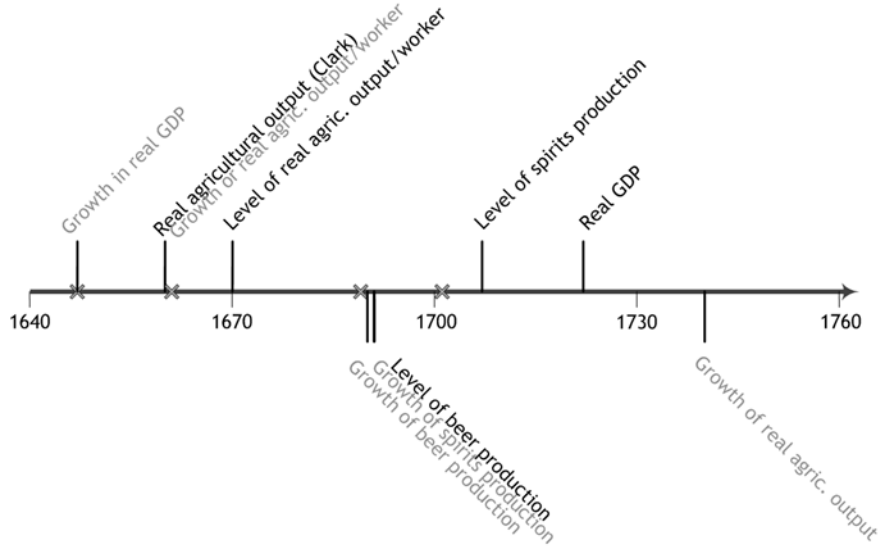


Figure 4(b): Estimated breakdates for data on factor returns

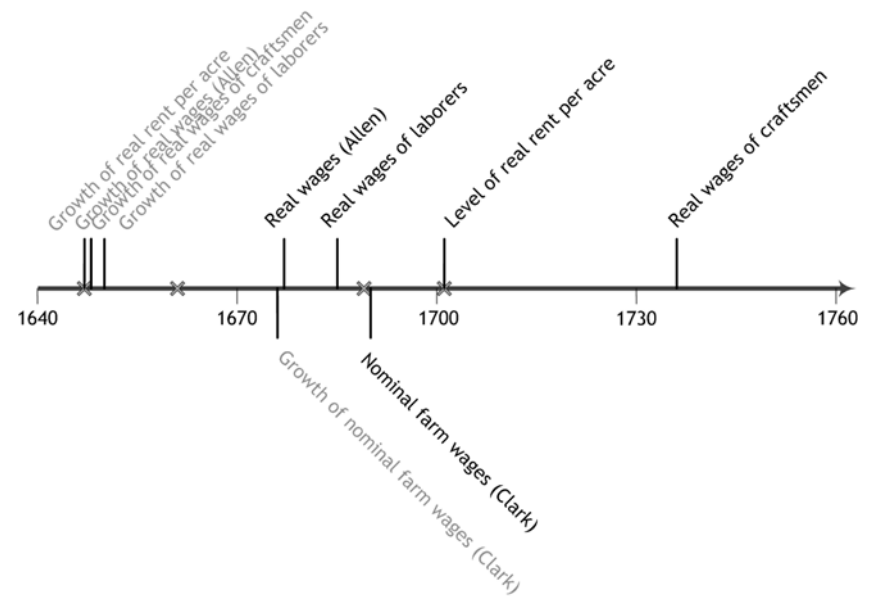


Figure 4(c): Estimated breakdates for data on intellectual activity

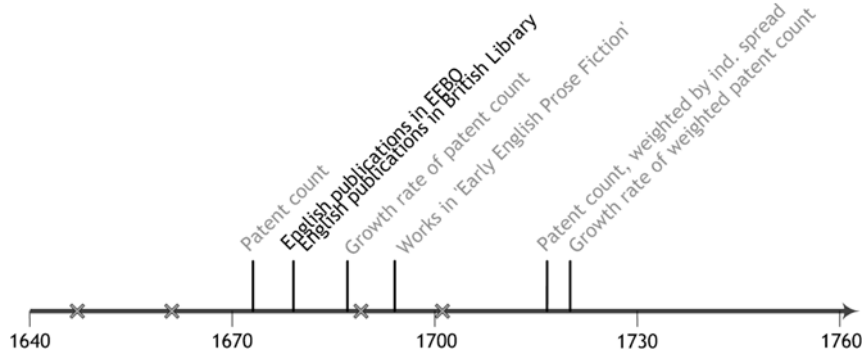
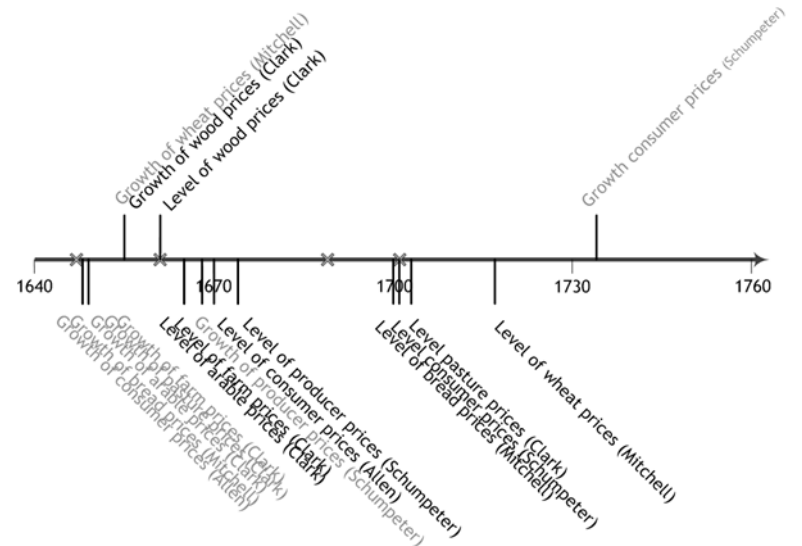
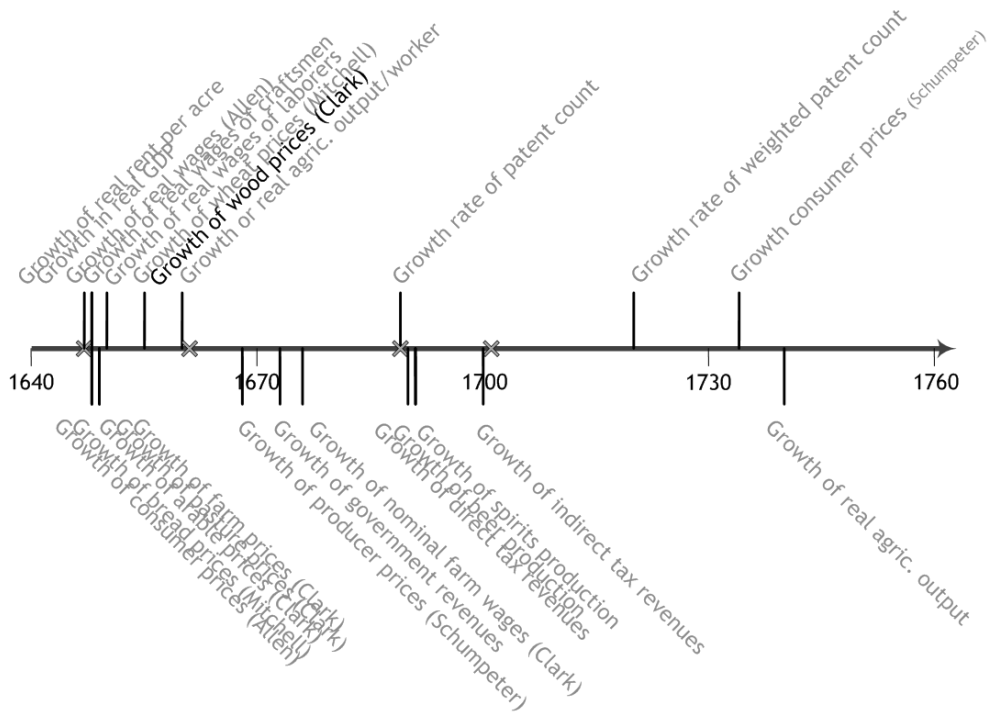


Figure 4(d): Estimated breakdates for data on prices



Figures 5(a): Estimated breakdates for growth variables



Figures 5(b): Estimated breakdates for levels variables

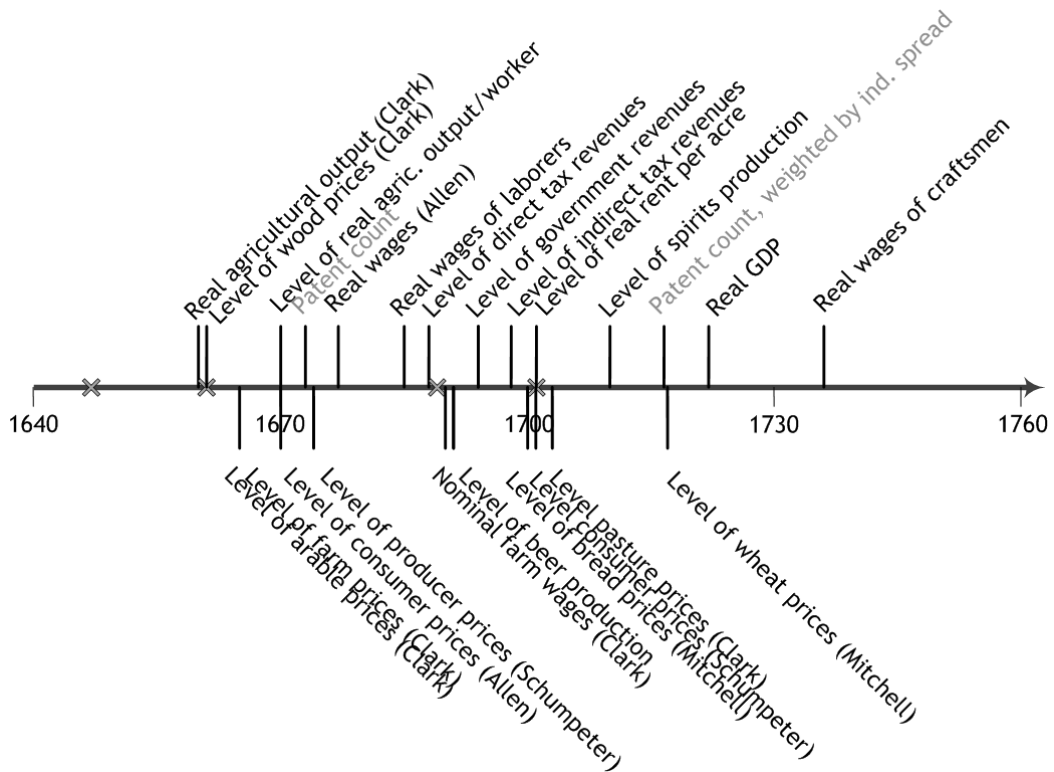


Figure 6: Clark's price index for pasture output: A series with multiple estimated breaks

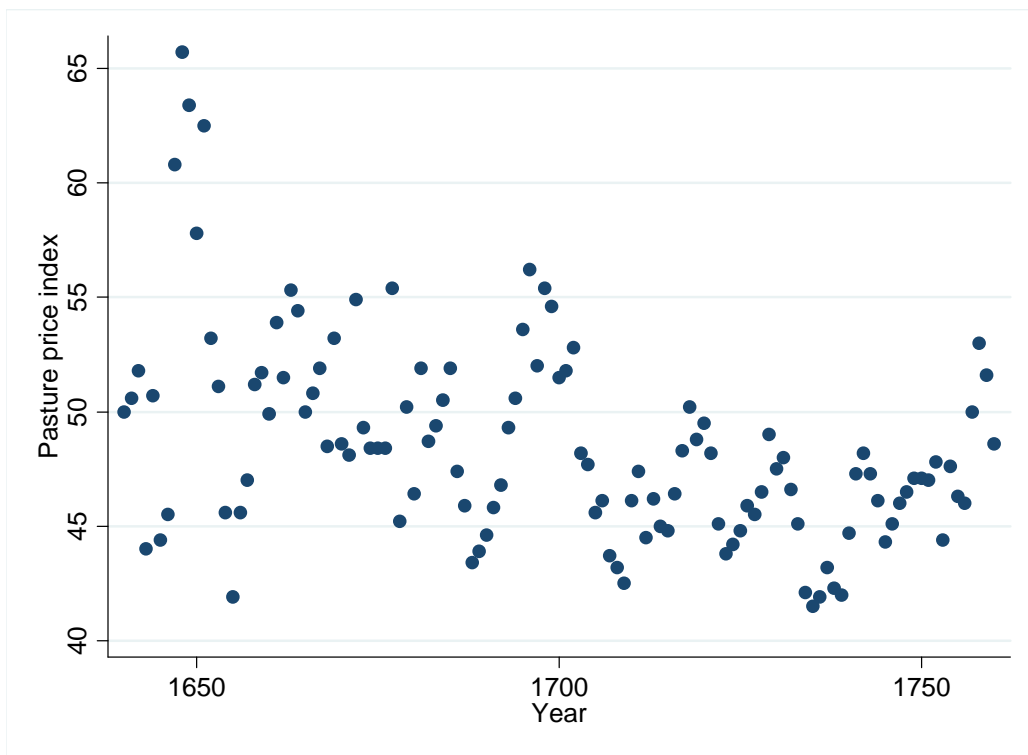


Figure 7: The Behavior of Judges: Severe punishments as a proportion of all punishments for property crimes

