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Establishing a New Order: The Growth of the State and the Decline  
of Witch Trials in France

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## **Establishing a New Order: The Growth of the State and the Decline of Witch Trials in France**

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### **Abstract**

The growth of the 17th century French state contributed to the establishment to a more regular, and even liberal legal order. Higher fiscal demands on the state led to a process of legal standardization that extended the rule of law. We use data on witch trials and taxation covering twenty-one regions between 1550 and 1700 to support this claim. Regions where higher taxes were collected were also less likely to see witch trials. Thus fiscal consolidation promoted a more rational legal order.

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“... the greatest pressure of Sovereign Governours, proceedeth not from any delight, of profit they can expect in the dammage or weakening of their Subjects, in whose vigor, consisteth their own strength and glory...” -Thomas Hobbes, *Leviathan*, Ch. 18.

“L’etat, C’est Moi” -Attributed to Louis XIV

## 1. Introduction

The central problem of political economy can be described as the Smith versus Hobbes problem. The whole thrust of classical economics is that voluntary exchange is mutually beneficial, and hence that trade and commerce with diverse partners enhances specialization, productivity, and gains from trade. But if the implications of Smithian economics (and its Ricardian derivatives) are that enlarging the scope and scale of market transactions is good why was large scale integrated trade so slow to emerge and generally unstable? The answer is to be found in Hobbes. Because classical economists presupposed voluntary exchange, they avoided the problem of violence and human conflict. But in the absence of a secure political order, usually enforced from without, trade is most easily encouraged in smaller groups that are more homogeneous, more conservative, and more isolated than would be expected in a stable wealth-maximizing world.

The great debate about the proper limits of the state has tended to focus too heavily on the emergence of the modern state and paid too little attention to the conflicts between a large, national state government and more autarkic and independent local authorities.<sup>4</sup> Throughout the preindustrial period, local authorities limited the reach of Leviathan. On the hand this helped to preserve some measure of cultural and social autonomy. On the other, local rulers derived much of their support from fragmented and poorly integrated markets that effectively left regions as semi-autarkic zones facing high transactions costs and granting limited monopoly power to local elites who benefited from a poorly integrated national market.

The rise of the central state can be seen as an arc in which the early modernizers, Britain and France, developed central governments that leveraged their authority by promoting national markets, breaking down regional barriers, and enhancing integration and competition. Some of this may have been due to a fortuitous predilection for a liberal economy, but it can also be seen as the unintended consequence of urban or parliamentary elites increasing their authority by breaking down local barriers and effectively bribing core rural groups to defect and abandon centuries old laws that limited integration. Although the process of eliminating entrenched local elites typically led to rent-seeking by new centralized elites, as this paper will show, shifting tax and legal authority away from local jurisdictions also had beneficial side effects.

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<sup>4</sup> For example the work on the nineteenth century of Ferguson (2002) or Lindert (2004).

Mokyr and Nye (2007), Balla and Johnson (2009), and Bogart and Richardson (2010) highlight the ways in which local arrangements were overridden, often blatantly, sometimes in the name of local Coasian bargains and sometimes as a power grab on the part of elites who saw their progressive regulatory efforts as contributing to both a more efficiently run government and to increasing the rents that would flow into their pockets. Thus, a purely ideological reading of history might treat high tariffs on wine and spirits in England as inconsistent with Parliamentary initiatives to promote better land use, greater consolidation, and more effective private bargaining to allow improved transport and increased drainage. From an ideological perspective, the two seem greatly at odds. But from the view that this was part of a movement for central elites to displace provincial elites, the two are consistent (Nye, 2007). Likewise, the creation of the centralized tax monopsony known as the Company of General Farms in seventeenth century France may have seemed on the surface as a move towards less integrated markets and greater inefficiency. However, in reality, it allowed for a group of urban elites centered around Paris to impose their authority on the rest of the country, and in the process, harmonized the collection of indirect taxes (Johnson, 2006a).

This does not mean that the centralizing state was always an improvement on local arrangements. Rather, the historical struggle was rarely between individual property rights and state power but between different levels of state power. In many cases, European rulers at the level of the village or district were remnants of a feudal system in which powerful aristocrats or their vassals controlled production through a decentralized political hierarchy (Root, 1987). That the system was decentralized, however, did not mean that it was either open or competitive.<sup>5</sup> Thus the struggle over control of political order was partially tied to whose rules – those of the Crown or those of the local authority – would prevail and to what extent these rules would be universal in application. That the centralizing authorities might be substantially less liberal than local authorities was certainly not uncommon.<sup>6</sup> What is interesting in Europe is the extent to which much of the centralization of authority that accompanied the expansion of the tax state was tied to the liberalization of trade and the creation of less particularistic and more universal laws. This was sometimes a byproduct of changing ideology as Mokyr (2002 & 2009) has argued concerning the Enlightenment. In this paper, however, we focus on how simply increasing the scale of the fiscal state drove improvements in rule of law at the local level and resulted in a decline in witchcraft trials, independent of changing ideology. The improvements we identify were driven purely by an attempt of centralized elites to rationalize rules so as to lower the costs of collecting taxes. Local authorities also cared about revenues, *but* to the extent that inefficiencies were driven by regional externalities, the rules imposed by the centralized state often represented an improvement since they internalized these external costs. In this respect the

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<sup>5</sup> By “open” here we mean something akin to “open access order” as opposed to a “limited access order” in the same sense that North, Wallis, and Weingast (2009) use the terms.

<sup>6</sup> Cf. Fukuyama (2011) for an extended discussion of the destruction of local elites for the benefit of national authority in early China.

transition from a feudal domain state to a centralized tax state inadvertently created the necessary pre-conditions for modern economic growth.

### **Fiscal and Legal Capacity**

Our paper contributes to a growing literature in political science and economics that emphasizes the importance of state capacity in explaining comparative economic performance.<sup>7</sup> This literature stresses the twin significance of fiscal capacity and legal capacity. The former enables states to raise tax revenues relatively efficiently whereas the latter refers to the ability of a state to enforce contracts.

It has long been known that the British state levied comparatively high taxes in the eighteenth century (O'Brien and Mathias, 1976). John Brewer stressed the transformation that the British state underwent between the Civil War and the Treaty of Utrecht, a transformation "which put muscle on the bond of the British body politic, increasing its endurance, strength and reach" (Brewer, 1988, xvii). More recently Bogart and Richardson have argued that the power of the British parliament to overrule and reorganize property rights played an important role in improving the efficiency of the economy in the period leading up to the industrial revolution (2008; 2010; JLE Forthcoming). These historical findings have begun to influence other fields within economics. Timothy Besley and Tosten Persson (2009; 2010) have developed a formal model in which prior investments in both fiscal and legal capacity constrain a state's ability to raise revenue or regulate markets. Legal capacity, they argue, is a pre-requisite for the development of fiscal capacity.

This paper examines the relationship between fiscal and legal capacity by studying seventeenth century France. France poses an interesting counterpoint to Britain. Early modern states lacked both fiscal and legal capacity and, from a modern perspective, appear fragmented and weak (Dincecco, 2009). Britain, or at least England, was the exception: a precociously centralized state.<sup>8</sup> The strength of the British state stemmed from the unity of the English elite as a political class which, in turn, rested on the early legal and fiscal centralization in the middle ages. By the early modern period, the English elite was small and, though membership was still based on the ownership of land, it was metropolitan-based and its members shared a common set of assumptions and beliefs. Such a coherent and centralized elite enabled the eighteenth century British state to function effectively, despite high levels of corruption and rent-seeking (Root, 1991; Mokyr and Nye, 2007).

Compared to England, France was not centralized early, but rather remained a "mosaic state" in many respects until the Revolution (Hoffman, 1994). It was made up of "morsels" and "shreds" of provinces, towns and semi-independent kingdoms (Goubert, 1969). No national equivalent of the

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<sup>7</sup> See the essays collected in Evans, Rueschemeyer and Theda Skocpol (1985) and Tilly (1990). O'Brien (2011) provides a survey that asserts the importance of the state in early modern economic history.

<sup>8</sup> Dincecco (2009), for example, dates the fiscal centralization of England to the Norman conquest.

English parliament emerged. J. Russell Major observed that during the middle ages the French monarch had to make concessions to local interests in order to survive: “They had encouraged the codification of local customs instead of trying to create a common law. They had accepted the growth of provincial loyalties . . . In short, at the very time when they appeared to creating a unified kingdom by driving the English out, they were permitting the formation of centrifugal forces that threatened to keep the nation forever divided” (Major, 1994, 57). Authority was vested in local elites who defended their own interests, often at the expense of those of the realm at large. This feudal inheritance shaped the distinctive path France took towards modernity and sustained economic growth.

Because of this very different history, the French monarchy could not easily follow the British path of state formation and economic development in the seventeenth and eighteenth centuries. Nevertheless, France did undergo an important process of centralization prior to the French Revolution and this provides an alternative laboratory for studying the transition from a feudal to a modern state.<sup>9</sup> Alexis de Tocqueville commented on this, noting that in “the eighteenth century the government was already . . . very centralized, very powerful and extremely active” and that there were “many traits of modern France in the France of the old regime” (Tocqueville, 1998, 84). Ancien Regime France was relatively successful in overcoming many of the limitations that it inherited from the middle ages, as attested to by the ability of post-Revolutionary France to achieve its own path to modern economic growth in the nineteenth century.

### **The Costs of Fragmentation**

Fiscal fragmentation impeded economic growth in medieval and early modern Europe (Epstein 2000). Merchant guilds regulated and restricted commerce and trade (Ogilvie, 2011). Overlapping jurisdictions, internal tariffs, different weights and measures, all prevented European economies from fully realizing Smithian gains from trade.<sup>10</sup> Eli Heckscher (1955) provides numerous examples of the ways in which trade was impeded in France. The north and south of the country had different systems of regulation and administration. Internal tariffs and duties impeded domestic trade. To get between Rouen and Nantes one paid thirty different tolls and each provided an opportunity for a local official to overcharge by as much as 300 or 400 percent (Heckscher, 1955, 84-85). Johnson (2006a, 12-13) discusses how the fragmented system of collecting indirect taxes contributed to high marginal tax rates and corruption. Before the seventeenth century, despite significant effort, the Crown had met with little success in centralizing these institutions. As Heckscher says, “[t]he endeavors of the

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<sup>9</sup> The disputed modernity of the Ancien Regime France is the subject of much historical debate (see Parker (1996, 6 – 27) for a survey). Steven Pincus writes in this context about the ideology and practice of “Catholic modernity” (Pincus, 2009).

<sup>10</sup> Shiue and Keller (2007) and Bateman (2011) have shown that continental European markets remained highly fragmented during the early modern period. Dincecco (2010) finds that the major continental European economies remained divided into semi-autarkic regions throughout the seventeenth and eighteenth centuries.

French monarchy to end the disorder were almost as old as the monarchy itself” (Heckscher, 1955, 81).

One reason for this lack of success was that fiscal centralization was all but impossible so long as the monarchy was legally fragmented. The law remained in the hands of provincial parlements and the local nobility who stood to gain from the continuation of these arrangements (Beik, 1985). This inhibited the ability of the king or his ministers to regulate at a national level and resolve economy-wide coordination problems. Legal fragmentation impeded the provision of local public goods (such as irrigation projects) as high transactions costs created holdup problems and ensured that Coasian bargains could not be made. Property rights were often contested and the resulting litigation was often interminable and costly as France lacked a meta-institution like the English parliament that was able to reorganize property rights. Local coalitions blocked efficiency-improving reforms.<sup>11</sup> Legal fragmentation raised the transaction costs faced by elites in forming coalitions to negotiate with the king (Balla and Johnson, 2009).

The authority of the king remained weak in many parts of the country where the provincial nobility still reigned as semi-independent rulers. Even in those areas where the authority of the king was strong, local families dominated the regional parlements and elections, and they used the courts in order to maintain their privileges (Beik 1985, 81). Because the central state remained underdeveloped the king relied upon local elites to raise taxes like the *taille* and *aides*. Throughout the *pays d’élections* local courts were needed to levy the *taille*. The tax burden itself was allocated locally by the officers of the election court (Collins, 1995, 20-21).

Local fragmentation and decentralization was an inescapable element of the feudal and Renaissance monarchy, a way of diverting rents into the hands of local political supporters and thereby ensuring domestic peace (Major 1962, 1964, 1994). However, this practice became increasingly costly in an age of intensified military competition. Beginning in the 1620’s during the reign of Louis XIII, and then gaining momentum after France’s entry into the Thirty Years War in 1635, there was a systematic effort made by the Monarchy to push out traditional local elites who originally gained prominence through their ability to fight (sword nobility) with newer elites drawn from the “robe nobility” who gained their status through their ability to be useful to the centralized state. These robe nobles were lawyers rather than soldiers and, while they definitely were not above rent seeking, they did so through the institutions of the centralized state rather than through local institutions.

Louis XIII’s advisor, Cardinal Richelieu, was perhaps one of the foremost examples of this new breed of elite. Acting under Richelieu’s advice, Louis called an Assembly of Notables in 1626-27 with the express purpose of obtaining support for the king’s desire to suppress the Protestant

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<sup>11</sup> See Rosenthal (1992) for examples of how irrigation projects were impeded by hold-up problems and Hoffman (1996) for examples of how local elites prevented enclosures from taking place.

Huguenot movements.<sup>12</sup> The king got the Assembly to issue a critique of local elites (grandees and provincial governors) which enabled him to seize control of the military away from the old nobility. The members of the Assembly spent a great deal of time complaining about the disastrous fiscal situation of the government and recognized the need to raise high tax revenues. The Assembly confirmed the King's view that the judicial and fiscal administrative apparatus was too fragmented to be of great use (Collins, 1988, 47). This last issue was addressed immediately following the Assembly by a rewriting and consolidation of all administrative law in France known as the Code Michau.

The efforts of Richelieu and Mazarin to centralize fiscal and legal authority were only partially successful (see Moote, 1970). But, after the Fronde was put down, Colbert was able to lay the foundations of a new "absolutist" state.<sup>13</sup> Under Louis XIV a system of centralized rent seeking was consolidated, a "welfare state for the privileged," that aimed at weaning the nobility away from the more costly local rent-seeking practices (Kwass, 1998, 301). The nobility were obliged to stay at Versailles but the government patronage with which they were rewarded was more than sufficient to compensate them for the rents they lost by no longer being able to supervise and tax the local economy (Root, 1991). A new set of Paris based administrators were imposed on top of the provincial elite (Collins, 1988). Intendants were sent out into the provinces to supervise tax collection and the administration of the local elections. Drawn from a new elite, quite separate from the provincial nobility, the intendants enabled the state to enforce its new laws (Moote 1970, Hurt 2002).<sup>14</sup> The number of royal officials increased from 4,041 in 1515 to at least 46,047 in 1665, an increase that one historian describes as "staggering" (Kwass, 2000, 29). The intendants overwhelmingly came from the nobility of the robe and, just as important, they were commissioned employees of the King. They had not bought their positions. Rather, the King paid them a stipend and could sack them at will (Collins, 1988, 54). Their self-interest was firmly aligned with the central government, not the provinces. This resulted in a top-heavy and inefficient state but in many ways it was an improvement on the uncoordinated and fragmented local institutions that preceded it.

As we have already seen with regards to issuance of the Code Michau, legal reforms were a vital part of the process of building fiscal capacity. From the point of view of Louis XIV's finance minister, Colbert, "judicial reform dovetailed perfectly with the financial reforms he promoted... If justice could be dispensed swiftly and inexpensively, all segments of the population would have more funds at their disposal to develop the economy and to place in the service of the monarchy" (Hamscher, 1976, 157).

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<sup>12</sup> As Collins (1988, 45) explains, this move resonated with the gradual abandonment of witch trials below as the state encroached on localities since Louis objected to Huguenots, not so much because he did not want Protestants worshipping in his lands, but because the Huguenots themselves were intolerant of Catholic worshippers.

<sup>13</sup> Of course this success was relative. The 'absolutist' state of Louis XIV remained constrained in many respects. See Beik (1985), Collins (1988), and Hurt (2002).

<sup>14</sup> Colbert instructed the intendants to look for any lapses by parlements or other law courts concerning such disputed taxes as the stamped paper or the consignment des amendes. His successors continued the surveillance, so that the parlements were never again free of some watchful eye (Hurt, 2002, 58).

Colbert commissioned an enquiry into the administration of justice in 1665. This report attributed the inefficiencies and corruption of the existing system to the existence of multiple overlapping jurisdictions. The legal experts told Colbert that “there were simply too many jurisdictions” and too many venal judicial offices: together these resulted “in perennial jurisdictional conflicts among the courts and in great expense to litigants who faced a vast judicial hierarchy if they were entitled to appeal a decision from a lower court” (Hamscher, 1976, 160).

There is ample anecdotal evidence that as the centralized French state expanded the fiscal system, the legal system was also reformed. We know, for example, that the activity of the local, seigniorial courts declined in this period as the royal courts became more prominent (Collins, 1995, 147-148). However, identifying consistent measures to follow this process presents a challenge. Since tax records often survive, the fiscal capacity of the centralized state can be measured relatively easily. However, legal centralization is much more difficult to quantify. This is particularly true if we are interested in the kinds of rules that governed everyday economic activities (as opposed, for example, to changes in rules that affected the terms on which the monarch could borrow). Was the French monarchy able to overcome vested local interests and achieve a measure of legal centralization and, if so, when? Furthermore, were fiscal and legal capacity correlated across time and space? If so, why? We investigate these questions using panel data on direct tax receipts from the *taille* to proxy for fiscal capacity and data on the prosecution of witchcraft trials. We argue that legal centralization led to fewer trials of suspected witches. Hence, in the context of seventeenth-century France, witch trials can be used as an indirect proxy for increased legal capacity.

## 2. The European Witch-Hunt

The history of European witch-trials offers unique insight into how the process of legal centralization and state building curtailed the discretionary authority of local elites. Alfred Soman described witch trials as a *measure* of the weakness of a state (Soman, 1989, 17). Certainly, the witch-hunts were at their most intense in the small, fragmented states of central Europe. While a small number of individual witch-trials occurred across Europe, the governments of the major European states were comparatively reluctant to sanction large-scale trials. Witch panics took place in weakly governed states or during periods when the grasp of central government was weak. The worst episodes of witch killings occurred in fragmented states: the Jura region, the Basque country, Scotland and south-west Germany.<sup>15</sup>

Why was this the case? At first glance the history of the witch-trials is puzzling. The trials were not a product of medieval superstition; rather they peaked in the early modern period and overlapped

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<sup>15</sup> See Monter (1971, 1976, 1997), Midelfort (1972), Behringer (1997).

with the Scientific Revolution and the Enlightenment. From a long-run perspective, the relationship between state building and witch-hunting was clearly non-monotonic. While belief in witchcraft was almost universal in pre-industrial Europe, formal trials of witches only began once the secular legal system began to take an interest in the superstitions and complaints of the peasant population. Christina Larner noted that the “crime of witchcraft went on the statute books, or became otherwise the responsibility of secular authorities, at a time when jurisdictions were becoming more centralized and more rationalized and when standards of proof were becoming rather closer to those of our own day” (Larner 1980, 57).

Witchcraft beliefs were more or less universal across Europe in the early modern period but the existence of these beliefs was not sufficient reason for trials of witches to take place. Several elements needed to be in place before witchcraft beliefs had evolved into a form that could give rise to frequent trials of witches. Magistrates and judges had to believe in harmful magic witches’ Sabbaths, the possibility of a covenant with the Devil, and nocturnal flying (see Cohen, 1975). The printing and distribution of treatises on witchcraft such as the *Malleus Maleficarum* played a key role in creating a common notion of what witchcraft was.

Witchcraft, however, was almost impossible to prosecute under standard legal procedures because it was very difficult to find physical evidence that an act of sorcery or bad magic (*maleficium*) had been committed. Standard legal procedures limited the use of torture.<sup>16</sup> However, if these standards were upheld few witches would ever be convicted. In the opinion of many magistrates many acts of witchcraft could only be proven through a confession and, given the paucity of physical evidence, torture was seen as the only way in which a confession could be obtained. For this reason, witchcraft was treated as unique type of crime - *crimen exceptum* - and in many jurisdictions local judges employed laxer and less stringent standards of evidence and the freer use of torture to obtain a confession. These departures were often justified with reference to works of demonologists or in response to witch-trials conducted in neighboring regions.<sup>17</sup>

Where individual judges had the discretionary authority to license torture or allow suspects to be swum, or searched for the marks of the devil, trials of individual witches could quickly become mass witch-hunts or panics as suspects were induced to incriminate their relatives and neighbors. Such trials required local legal authorities to have a free hand in interpreting evidence and in employing torture. If a local judge or magistrate or group of judges or magistrates became convinced of the existence of a large number of witches covens they might begin a process that could lead to dozens or

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<sup>16</sup> Contemporaries were aware of the incentive suspects had to incriminate themselves under integration (Langbein, 1976, 9). In England it was the responsibility of jury to ascertain the truth so torture was only employed in exceptional circumstances and with Parliament’s permission. In Germany the use of torture was directed by the *Lex Carolina* of 1532 which stipulated that evidence obtained through torture had to be independently corroborated if it was to be used. In witch trials these guidelines were routinely flouted. See Roper (2004, 46), Levak (1995, 82-88), and Langbein (1976, 5).

<sup>17</sup> See Johnson and Koyama (2011).

even hundreds of individuals being tried. Large-scale trials once begun, they were hard to control.<sup>18</sup> Mass trials or panics drew in individuals who would not normally be suspected of witchcraft and, because respectable citizens often ended up executed, ended by discrediting the whole process of the trials themselves.

The apparent relationship between political centralization and witch-killings is an established historical finding but there is no consensus as to why this was the case. A number of different explanations have been proposed. Perhaps these were regions where the hold of Christianity was weakest as Chaunu (1969) suggested? Robert Muchembled argued that witch trials were a means through which the state imposed conformity and hence trials were most frequent in border regions where the danger of rebellion was greatest (Muchembled, 1985, 241). Levack offered two reasons: first “local authorities who presided over witch trials were far more likely than their central superiors to develop an intense and immediate fear of witchcraft” while central courts were “less likely to be affected by the hysterical mood that often engulfed towns and villages when witch-hunts occurred.” Second: “...central judges were generally more committed to the proper operation of the judicial system and more willing therefore to afford accused witches whatever procedural safeguards the law might allow them” (Levack, 1995, 97).

### **Information Cascades and the Spread of Witch Trials**

An economic model that is consistent with Levack’s explanations, but also adds insight into why there were significant differences in the attitudes of local and central authorities with regard to witchcraft prosecutions is the concept of information cascades. An information cascade occurs in a sequential game when it is optimal for an agent to follow the behavior of those who have moved before him regardless of the information available to him specifically (Bikhchandani et. al., 1992). In the case of witchcraft the concept of an information cascade can explain why a judge in one region might find it optimal to convict a witch (or allow a witch suspect to be tortured into producing a confession) simply because the number of convictions in nearby regions have increased the perceived threat posed by witchcraft.

Suppose local courts attached an *a priori* probability to the possibility that witches exist and pose a large threat to society. Based on this probability or belief, the courts determined what kind of evidence could be accepted in court and what forms of interrogation or torture could be used. If the danger posed by witches was truly great then this could justify departing from the legal proscriptions concerning what kind of information can be elicited from a suspect during interrogations. Hence the higher this probability the more witches that would be executed by the local court.

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<sup>18</sup> The largest witch hunts, involving more than 250 executions within a relatively short space of time, took place in Trier, Lorraine, Würzburg, Bamberg, Baden, Cologne, Mainz, Pays de Vaud and the Basque region.

This probability was affected by exogenous shocks (periods of unusually bad weather for example). However it was also influenced by trials in other nearby regions. If a witches' coven was discovered elsewhere this raised the probability that there might be a similar such coven here undetected. Thus the decisions of one local court impose an externality on other courts. If this externality was large enough then it could generate an information cascade in which judges pass sentences independently of local circumstances or the evidence before them. A mechanism like this could explain the witch-panics that gripped parts of Germany between 1560 and 1660. However, even if this externality was not so large so as to generate a pure information cascade, it still might be large enough to make larger-scale witch trials far more likely in regions where there were many independent courts each with their own discretionary authority than they would be under a centralized legal system which would be able to internalize it. This was the case in early modern France as we discuss below.

There is plenty of evidence that is consistent with this simple framework. The majority of trials took place in response to popular outbreaks of fear about witchcraft (Monter, 2002, 19). Belief in the threat posed by witches received apparent confirmation from the trials themselves. As we noted, it was difficult to prove or disprove the crime of witchcraft except by obtaining a confession. This lent the process of investigating witchcraft a degree of circularity: “[b]y extracting confessions, usually under torture, to the activities that he believed the witch had engaged in, the inquisitor received confirmation of his suspicions, and thus the beliefs acquire validity” (Levack 1995, 53). Trials therefore increased overall belief in the existence of a witch threat. Tales of black magic, midnight sabbaths and satanic pacts grew in the telling and the fear these tales aroused could spread from village to village and town to town in a fashion that resembled the spread of a contagious illness.<sup>20</sup> Unusual weather or bad harvests were often trigger factors but trials in which the charges were publically read aloud and distributed by pamphlets were the propagation mechanism (Behringer, 1995).

The news of witch-hunts and executions in other parts of a country could easily fan popular and elite fears and create a mood that was conducive to witch-hunting in a village or town. It was because of such communications that many hunts spread from village to village, even when confessing witches did not implicate accomplices outside their communities or when witch-hunters did not move from place to place’ (Levack, 1995, 178-179).

It was the contagious and self-confirming nature of the witch-panics that posed a danger to public order and accounts for why witch-hunting was so much more prevalent in the political fragmented parts of central Europe than it was in western Europe.

This argument suggests that witch-hunting was fiercer in legally fragmented jurisdictions because local authorities did not take into account the effects that their decisions would have on the overall level of witchcraft belief in nearby regions. In taking action to try a witch suspect they quelled

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<sup>20</sup> “Probably the most common source of an atmosphere that was conducive to witch-hunting was the public discussion of witchcraft itself” (Levack, 1995, 178-179).

local fears but lent credence to the view that malevolent witches were widespread. Hence a spate of trials in one region could cascade, causing a series of trials in other nearby regions. Trials begat further trials because they increased both the likelihood that witches truly existed and hence that the suspect was in fact a witch and they increased the perceived threat posed by witchcraft in general, thereby justifying harsher and more severe punishment.

For this reason, a historian of witchcraft in Lorraine, Robin Briggs, remarked that “no well-organized major state in Europe was prepared to tolerate genuine witch-hunting for very long” (Briggs, 1996, 190-191). A further reason for this was that witch trials were often accompanied by the, unauthorized and presumably largely unrecorded, lynching of suspected witches (Larner, 1984; Soman, 1989; Monter, 2007). It was not so much that magistrates or judges were skeptical about the possibility of witchcraft. They believed in the reality of witchcraft. But public order and interests of state were the priority. This is why Louis XIV could pursue and burn over a hundred members of the aristocracy as witches between 1677 and 1682 for political reasons but then issue an edict the following year banning the prosecution of anyone as a witch throughout his realm.

This externality – the possibility of sparking a witch panic or setting off witch fears in neighboring regions – accounts for the reluctance of central authorities to allow the large-scale prosecution of witches. The Inquisition in Spain was comparatively skeptical of witchcraft accusations, particularly from onwards 1610 (Henningsen, 1980). One implication of this framework is that the reluctance of centralized authorities to put witches on trial was independent of their belief in witchcraft. James I was the author of *Daemonologie* and in the 1591 he conducted a large-scale trial in which dozens were executed, but by 1597 he was worried about panic-based persecutions and curbed the power of local lords to try witches (Larner, 1984, 17-18). This account provides evidence in favor of our simplified ‘model’ of witch trials. Certainly the trials of 1591 greatly increased fear of witchcraft in Scotland so that “the witch doctrine had by this time taken an almost complete hold of the clergy, gentry and legal profession of Scotland. This in turn encouraged already existing village belief, and allowed villagers and townsmen complete license in their accusations” (Larner, 1984, 17-18).

The rulers of Europe’s stronger states were engaged in a project of centralization that involved imposing uniform legal standards across their territories. In regions where legal standards were strictly adhered to, witch trials never became witch-panics. Local English courts tried a very small number of witches each year. And, with the exception of East Anglian trials, inspired by Matthew Hopkins during the Civil War, England did not experience large-scale witch-hunts in which dozens or hundreds of suspects were tried and executed in a single year (Macfarlane, 1970; Gaskill, 2005).

On the other hand, in fragmented territories like the Holy Roman Empire legal autonomy of small principalities and bishoprics could result in large-scale witch panics.<sup>21</sup>

This is not to downplay the role played by other factors since not all fragmented or small jurisdictions saw large-scale witch-hunts. Putting a witch on trial was very costly.<sup>22</sup> This was why, although belief in the possibility of witchcraft was universal, many regions saw no witch trials through the entire period. It often required either a period of bad weather or a particularly fanatical ruler or judge to spark large-scale trials.<sup>23</sup> Wary of inciting fear of witchcraft, central governments internalized the externalities generated by witch trials. But politically fragmented lands, where local authorities were free from central oversight, were overwhelming more likely to see large-scale witch-hunts. Witch trials were an indirect measure of legal centralization. Therefore we would expect centralized states to prosecute fewer witches (all else equal) and the process of state centralization and fiscal consolidation to result in a decline in the number of witch trials.

### 3. Empirical Analysis Fiscal Centralization and the Decline of Witch Trials

Monter commented that the “rapid collapse of witch-hunting in the second half of the seventeenth century is as difficult to explain as its general acceptance until then” (Monter, 1976, 37). Can our theory explain the demise of the witchcraft trials? Is there any evidence that as the centralized fiscal state imposed itself on outlying regions, witchcraft trials became less likely? We test this proposition using a unique data set on witchcraft trials across twenty-one regions of France between 1550 and 1700.<sup>24</sup> We combine the data on trials with data on direct tax revenues from the *taille* during the same period.

#### The Data

The French fiscal system during the sixteenth and seventeenth centuries was highly complex. Nonetheless, receipts were generally separated into two categories, ordinary revenues and extraordinary revenues.<sup>25</sup> Extraordinary revenues were particularly important during times of war and could come from temporary surtaxes or loans (sometimes forced) from the wealthy. Ordinary

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<sup>21</sup> 274 people were executed in Eichstatt in one year and 133 witches were killed in Quedlinburg in one day in 1589. (Levack, 1995, 24).

<sup>22</sup> Lea (1957, 1206) notes the total cost of a trial and execution in seventeenth century France was rarely less than 500 francs. C.f. Muchembled (1985, 259-260)

<sup>23</sup> For example Nicolas Remy in Lorraine, the bishops Johann Gottfried von Aschhausen and Philipp Adolf of Ehrenberg in Wurzburg and Johann Georg II Fuchs in Bamberg where over 600 witches were executed in less than ten years (see Roper, 2004).

<sup>24</sup> The trial data comes from a compilation made by Marc Carlson at the University of Tulsa. It is available for download from <http://www.personal.utulsa.edu/~marc-carlson/witchtrial/france.html>. The trials given for specific cities, villages, or in some cases, regions in France. We then recoded the data to correspond the appropriate *généralité* in the seventeenth century.

<sup>25</sup> The classic overview of financial records during the ancien regime is Guéry (1978).

revenues could be further broken down into local taxes like the octrois which were collected by cities (Franck et. al., 2011), indirect taxes which were usually collected through tax farms (Johnson, 2006a), and finally, direct taxes, the most important of which during this period were the tailles. Before 1661, the tailles typically represented approximately two-thirds of the ordinary revenues of the Crown. This value dropped to about one-third after 1661. The reason for the decline was not because receipts through the taille decreased (as will be shown in detail below), but rather, because of the even more dramatic increase in the value of the tax farms after the Fronde (Johnson, 2006a; Balla and Johnson, 2009).

We focus on the tailles as a measure of fiscal capacity for several reasons. First, the tax base for each of the individual tailles was known as a *généralité* and these were fairly stable from about the fourteenth century until the Revolution. This is in stark contrast to the indirect taxes collected through the tax farms which, by their very nature, were constantly being consolidated and split apart. The second attractive feature of the taille data is that in the eighteenth century Jean-Roland Malet published the details of the royal budgets from the entire seventeenth century down to the *généralité* level (Bonney, 1999). This is in stark contrast to other years in which the only extant tax records are the accounts “*abrégés*” which only contain nationally aggregated data. We can exploit the taille data from the seventeenth century to make inferences about changes in fiscal capacity across regions in addition to through time. This is a significant improvement on other work on French finances which rarely exploit the within country variation in taxes.

Figure 1 shows the overall numbers of witch trials between 1500 and 1720 in France (solid line) compared to the rest of Europe (dotted line).<sup>26</sup> Several facts are immediately apparent from the figure. First, witchcraft prosecutions started around 1550 across all of Europe. Secondly, while the overall number of trials in France was lower in total than in the rest of Europe (2,804 versus 4,435), French regions were very active in persecuting witches between 1550 and the middle of the seventeenth century.<sup>27</sup> Finally, and most importantly, French trials ended rather abruptly between 1635 and 1660 (marked by vertical lines), whereas in the rest of Europe, there was no such slowdown. Something unique to France apparently happened in the middle of the seventeenth century that was correlated with a decline in witchcraft persecutions.

[Insert Figure 1 About Here]

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<sup>26</sup> The data for France is from the panel constructed by authors and described below. The data on the “Rest of Europe” comes from Oster (2004) and includes numbers on trials in the Bishopric of Basel, Essex, Estonia, Finland, Geneva, the Home Circuit (England), Hungary, Neuchatel, and Scotland.

<sup>27</sup> We should note that one very important omitted region in Europe is the German States where some of the most severe witch hunts occurred during the period (see Midelfort 1972).

What seems to have been going on at the same time that trials became less likely in France is that the fiscal capacity of the centralized state was expanding dramatically. Figure 2 illustrates this by showing the per capita receipts from the *tailles* between 1600 and 1700.<sup>28</sup> Between 1635 and 1660 (vertical bars) tax revenues per capita increased by more than one log point (about 170%). This evidence of a positive correlation between aggregate tax receipts and the aggregate number of witch trials in France is suggestive, but it would be better if we could exploit the regional variation in taxes and trials over time in order to test two propositions: (1) at a given moment in time, were trials more likely to occur in regions with lower fiscal capacity? (2) within a given region, as tax revenues per capita increased over time, did this correlate with a lower likelihood of a trial?

[Insert Figure 2 About Here]

To this end, we create a panel spanning the years 1550-1700 for witchcraft trials across twenty-one regions in France.<sup>29</sup> One problem with analyzing the data on trials is that they are highly skewed. Five or six regions account for most of the raw numbers of trials, even though over half of the regions in France experienced at least one trial between 1550 and 1700. Since we are interested in the relationship between trials and fiscal capacity we begin by creating a variable called “trials” which is equal to 0 if a region experienced no witchcraft prosecutions during the period and is equal to 1 if at least one witch was prosecuted. Aside from eliminating outliers and allowing for a more robust analysis of the data, the rationale for doing this is inspired by the words of Montaigne who wrote in his *Essais* that “... it is putting a very high price on one’s conjecture to roast a man alive for them” (Montaigne, 1580, 1910). Even one witch prosecution says quite a bit about a region’s dedication to the law.

We combine the witchcraft data with regional tax receipts by the central government (the *tailles* receipts) for the years 1600-1700. Since there are no region-level data on tax receipts for the period 1550-1599, we average the tax data over three periods (1550-1610, 1611-1650, 1660-1700) and assume that regional tax receipts between 1600 and 1610 are good proxies for receipts between 1550 and 1599.<sup>30</sup>

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<sup>28</sup> We use generalité level *taille* receipt data from Malet. We use population data from around 1700 contained in Dupaquier (1979) to create per capita values. We then converted these numbers into real values using data on the silver content (in grams) of the *livre tournois* provided by de Wailly (1857). The final numbers, then are the log of *taille* receipts per capita in terms of grams of silver.

<sup>29</sup> The procedures used to construct the panel are available in a data appendix upon request.

<sup>30</sup> This assumption is bolstered by the extant data we do have on aggregate tax receipts from 1497 to 1597 provided by Guéry (1979). In 1552 “net revenues” (comparable to our unadjusted *tailles* data) were 8,548,000 *livres tournois*. This compares to the average amount of receipts in 1600 of 9,400,000 *livres tournois*. Thus, the identifying assumption we’re relying on is that the *distribution* of fiscal capacity in 1600-1610 was roughly similar to what it was between 1550 and 1599.

Figure 3 depicts the relationship between real taxes per capita across French regions and the likelihood that the region has at least one witch trial during the period. Blue bars represent fiscal capacity in regions with no witch trials. Orange bars represent regions with at least one trial. The numbers in the bars (n) represent the number of regions with and without witch trials. Numbers in parentheses indicate the total number of trials recorded. Figure 3 provides strong support for our hypothesis that as the fiscal capacity of the central state increased, rule of law also improved. Regions with high amounts of fiscal capacity were also unlikely to prosecute individuals for witchcraft. Furthermore, while fiscal capacity in witchcraft regions failed to increase throughout the 150 year period, the number of regions engaging in witchcraft prosecutions declined. Between 1550 and 1610, twelve out of twenty-one regions had trials. Between 1611 and 1650 this declined to seven out of twenty-one and after the dramatic increase in fiscal capacity illustrated in Figure 2, only three out of twenty-one regions had trials. Importantly, Figure 3 also shows that, on average, tax collections across witchcraft regions were constant. By contrast, fiscal capacity in regions without trials either increased or stayed the same over all periods. This implies that regions which abandoned trials were doing so at the same time as their tax capacity was increasing. Was this not the case, then the average fiscal capacities of the “no trials” regions would be pulled down by the former witchcraft regions.<sup>31</sup>

[Insert Figure 3 About Here]

#### **4. Did Increases in Fiscal Capacity Cause the Decline of Witch Trials?**

We have argued that process of fiscal centralization played a causal role in increasing the ability of the central state to intervene and overrule local courts, thereby bringing the age of witch-trials to an end. The first additional piece of historical evidence supporting our argument comes from the accounts contained in the secondary literature concerning the amount of corruption, nepotism, and inefficiency that characterized the local courts.

The costs of legal fragmentation were evident in the administration of justice. France did not possess a single criminal code and the concept of equality before the law was “unknown” (Hecksher, 1955, p 168).<sup>32</sup> The absence of a common criminal code placed discretion in the hands of local elites who staffed the courts and who used this power to extract rents (Beik, 1985). Nepotism was common

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<sup>31</sup> Johnson and Koyama (2011) provide more formal econometric analysis.

<sup>32</sup> “One man might be punished for a business practice which the next would carry on with impunity. This would sometimes happen illegally by corruption and personal favoritism, but even within the framework of the law, individual exceptions to any prescription whatever were frequently granted through personal influence” (Hecksher, 1955, 168).

and corruption widespread and standards were lax.<sup>33</sup> Legal fragmentation meant that the administration of justice was highly uneven across France. Judges in conjunction with procureurs generaux had great latitude in deciding what constituted a crime and its appropriate punishment. Local courts had a tremendous amount of discretionary authority. Even in ordinary criminal cases “[m]any individuals withered in prison for months before their cases were heard, and upon the decision of the presiding magistrate prisoners were denied counsel and subjected to torture” (Hamscher, 1976, 161-162). Reporting directly to Colbert, Nichols Potier de Novion described the conduct of local judicial officials as “worse than one can imagine” as “all the cases that have been brought before us have been poorly prepared and judged” (quoted in Hamscher, 1976, 168-169).

These local courts often used unorthodox methods to try and convict suspected witches. While the Parlement of Paris was comparatively reluctant to reduce legal standards in order to convict witches, regional courts adhered to much laxer standards. In the witch-panic of the late sixteenth century the Parlement of Paris discovered that “[v]illage judges in the region of Champagne-Ardenne were relying far too heavily on the dubious practice of ‘swimming’ suspects on the slightest evidence” (Soman, 1989, 6). “In 1609 the Parlement of Bordeaux condemned to death a young man, a Protestant of Nerca, on his simple confession, without witnesses” (Lea, 1957, 1296-1297). This is consistent with the mechanism we outlined in Section 2 and suggests that causation ran from increased fiscal capacity to increased legal capacity to fewer witchcraft trials. Regional courts tried many more witches than did the courts closer to the capital and, as the fiscal power of the state increased, the trials were brought to a gradual end.

The second piece of evidence that supports our interpretation of the relationship between fiscal capacity and witch trials comes from the number and composition of laws (edicts) promulgated by the monarchy. Figure 5 shows the raw counts of the number of edicts registered by the monarchy between 1550 and 1679.<sup>34</sup> Legislative activity was not uniform throughout the 130 year period. There were large spikes of activity during the years spanning 1550 to 1583. This was followed by a relatively quiescent period from about 1590 to 1630. Then, between 1630 and 1680, the Crown became legislatively active again.

One interpretation of the pattern in the data on royal edicts is that causality ran from fiscal to legal capacity and that increased legal capacity led to the decline in witch trials. In the period of early legislative activity in Figure 5 witchcraft trials were taking off in France, as shown in Figure 1. In other words, despite the fact that the central monarchy was attempting to impose its legal opinion on the rest of France during the sixteenth century, local judges in fiscally weak regions were exercising

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<sup>33</sup> “When judges were extensively interrelated through birth and marriage, they were frequently called upon to decide cases involving the friends of their ever-expanding family circles. This in turn generated a flood of appeals and the time-consuming and expensive process of evoking cases from one court to another” (Hamscher, 1976, 159-160).

<sup>34</sup> This discussion should be taken as preliminary since the data collection is incomplete. Aside from the 1550’s and 1670’s, we have only collected the first four years worth of edicts data for each decade.

their independent authority and prosecuting men and women as sorcerers and witches. By contrast, the second period of high legislative activity which starts after 1630 or so, corresponds to precisely the time when the fiscal state was expanding (c.f. Figure 2) and witch trials were on the decline. If witch trials really do serve as a proxy for the weakness of the central state's legal apparatus, then this is suggestive evidence that laws on their own were not enough. It took laws in combination with the institutional capacity to collect revenues in order to get a true deepening of legal capacity across the regions of France.

[Insert Figure 5 About Here]

Of course, it is possible that the edicts being issued in 1576 were very different from those being issued in 1664. In particular, perhaps those being issued in the early period were not attempts to undermine local authority in favor of that of the monarchy. While it is difficult to systematically measure such things, it is possible to read the edicts in order to evaluate whether this was the case. We identify nine consistent categories into which the edicts fall. Those categories are: (1) Exemptions, gifts, creation of noble titles, pardons, and other venal acts; (2) Regulations concerning health; (3) Laws concerning the money supply; (4) Laws concerning the military and international Affairs; (5) Laws confirming previous laws (*actes de jussion*); (6) Laws which increase fiscal capacity; (7) Laws which increase legal capacity; (8) Laws which suppress former offices and privileges; and (9) Uncategorized.

Categories (2), (3), (6), (7), and (8) are plausibly associated with increases in state capacity. This is generally confirmed by reading what the edicts say. In 1576, for example, under "laws which increase legal capacity", there is an edict, "portant défenses à tous Juges d'expedier sous leurs noms, ou autrement, aucunes Lettres de celles qui doivent estre expediées dans les Chancelleries des Parlements, ou des Presidiaux" (1576, 195). This is an explicit injunction designed to limit the authority of judges to act outside the authority of the more centralized Parlements. Similarly, also in 1576 there is an edict which creates an office for the presidency of the Parlement of Dijon (1576, 197). With regards to fiscal capacity, there is an edict which creates an office of "Treasurer of France" and "General of Finances" in each of the *généralités* of Lyon, Orleans, an Limoges (1576, 197). Directly below this is a "reglement general pour les Finances dans le ressort du Parlement de Bourdeaux" (1576 197).

In 1664 there are also edicts which increase the legal capacity of the central state, like one requiring the election of "Echevins" (municipal magistrates) in Rouen (1664, 525). There is another rule addressed to the tax court responsible for disputes concerning the "Aides" (sales taxes collected by the General Farms) which explicitly instructs those enforcing penalties not confiscate "beds,

clothing, bread, or horses or cattle serving as field labor” (1664, 523). Another overrides the law concerning marriage and inheritance in “Lyon, Lyonnais, Masconnois, and Beaujollois” (1664, 522). With regards to taxation there is a law *reducing* taxes in coastal towns and establishing entrepôts funded by the state (1664, 524). There is another which hypothecates revenue from the Royal General Farms towards payments on debt issued by the Hôtel de Ville (1664, 525). Another issues a “reglement general” for the tailles in Normandy (1664, 523).

Figure 6 presents two pie charts showing the proportions of the different kinds of edicts being issued in 1576 (n=48) and 1664 (n=37). In general, the proportion of laws issued in the categories most easily associated with an increase in central authority (categories (2), (3), (6), and (7)), look about the same between the two dates. The only significant difference is that a lot more privileges were being suppressed in 1664 than in the earlier period (category 8). So, for example, in 1664 there is an edict revoking letters granting noble status since 1614 (1664, 524). The fact that this law was registered in the Cour des Aides, a tax court, implies that its purpose was likely to reduce the number of local elites who were exempt from taxation. A similar edict does the same thing, but specifically for Normandy (1664, 523). Another edict suppresses offices created for “waters and forests” since 1635 (1664, 522). Two edicts reduce the number of ancillary officers in regional Parlements (1664, 522 and 524). The suppression of offices is wholly consistent with the historical narrative outlined above in which, for the purposes of increasing fiscal capacity, French Kings from the reign of Louis XIII on stepped up their efforts to undermine local elites in favor of those elites whose interests aligned with the centralized tax state (e.g. Intendants). Revoking noble status using edicts is just one method for doing this that is particularly well preserved in the historical record.

Of course, this discussion revolves around only two years worth of data that were picked so that the sample sizes would be comparable. Further data collection is no doubt necessary. Nonetheless, based on the data for 1576 and 1664 it appears that increasing state capacity did not only involve issuing laws, it required the creation of institutions that could enforce these laws, like the Intendancies. Similarly, the increased prevalence of edicts suppressing privileges of local elites and older nobility of the sword in the 1664 data was part of the process of substituting a new set of institutions, managed by a Paris-based elite, for the existing local arrangements. The development of this enforcement capability seems to coincide with the increase in fiscal capacity of the middle of the seventeenth century and the coincident decline in witch trials.

## **5. Discussion and Conclusion**

This paper has used witchcraft trials to trace some of the consequences of the expansion of the fiscal state in early modern France. Throughout history most societies produced well within their production possibility frontiers, unable to realize all of the technologically feasible Smithian gains

from trade. It is natural to attribute this inefficiency to rent-seeking. Economists have often portrayed the state as the barrier holding down economic growth in the pre-industrial period. In the period before the formation of the modern state, however, it was often local elites who created and enforced barriers to trade and restricted the scope and extent of the market in order to extract rents.<sup>35</sup>

Decentralized local rent-seeking was part of the political equilibrium of medieval Europe. The military technology of the middle ages favored small-principalities and fiefdoms. And this, in turn, constrained the effective size of the market and the scope and extent of the division of labor because even if trade can flourish outside of the protection of the state, such markets cannot long survive in the presence of a predatory state nearby.<sup>36</sup> In the early modern period with the coming of gunpowder and artillery, the politically feasible scale of the state (and hence of the market) increased. But the trajectory of state formation in each region was shaped by local initial conditions. Hence Britain could adopt one path towards the modern state while France had to follow a different route.

In a broader European context, the French absolutist state was relatively successful in repressing local elites and in overcoming fiscal fragmentation. It achieved this by imposing a new layer of bureaucracy on top of local elites: the intendants and the nobility of the robe, and by reducing the power of the local courts and parlements. Localized and very inefficient rent-seeking was largely replaced by less inefficient, centralized, rent-seeking. This process required legal centralization and standardization and one of the most interesting side-effects of legal centralization was a decline in witchcraft trials. We argue that legal fragmentation encouraged witch-hunting because the decision of any one local court risked enflaming fears of witchcraft in other, nearby, regions. Legal centralization inadvertently brought an end to witchcraft trials in seventeenth century France despite the fact that the central authorities continued to believe in the existence of malevolent witches. This illustrates the significance of the role played by the state and its “rise” in understanding the history of mentalités.

Our findings should be interpreted in relation to two separate literatures: (1) the recent literature on state capacity in political science, political economy, and development economics, and (2) the recent work by historians reevaluating the role played by mercantilist policies in the early modern period. The main claim underling much recent work in political science, political economy and development economics is that there is a strong link between the ability of a state to raise large tax revenues from a broad segment of the economy and good governance.<sup>37</sup> In a related vein recent work

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<sup>35</sup> For numerous examples of how local regulations and laws were more restrictive than those imposed by the national government in the early history of the United States, see Novack (1996).

<sup>36</sup> See North et al . (1989) and Greif (2006 ) on the possibility of trade in the absence of the state. There is a large literature on how such institutions helped to undermine the remarkable expansion of trade during the high medieval commercial revolution. Our reading of what happened subsequently in the fourteenth century, however, indicates how vulnerable such market institutions are in the face of sustained predation (See Munro, 2001).

<sup>37</sup>In addition to work previously cited see Collier (2007, 2009).

by historians and economic historians has suggested a more positive interpretation of state building efforts by mercantilist governments in the early modern period (Ormrod, 2003; O'Brien 2011).

The main implications of the argument of this paper are consistent with the both of these arguments. It is important to stress, however, that the increased size of the fiscal state in early modern France was not necessarily a boon to the ordinary population. Increased fiscal capacity need not imply increased provision of public goods. And, indeed, in ancien régime France, tax revenues were generally spent on warfare or diverted to the elite and the conspicuous consumption of the King at Versailles. Revisionist reassessments of mercantilism tend to fall into precisely the error identified by Adam Smith of identifying the visible power of the state with the welfare of the population. Collins notes that it was the peasants who paid five or six livres a year in taxes who were now unable to save or invest (Collins, 1988, 207). This increased their vulnerability to agricultural crises, which continued to occur, particularly in wartime.

However in the medium-to-long run there do appear to have been benefits for ordinary Frenchmen and women from this process of state-led centralization. John Komlos (2003) has shown that after the agricultural crises at the end of the seventeenth century, the welfare of French peasants, as measured by their heights, entered a sustained period of improvement. One way in which this seemingly contradictory outcome - an increase in the size of the predatory tax state combined with gradually increasing welfare - can be resolved, is to note that the increases in fiscal capacity were accompanied by a more standardized and centralized legal system. Higher taxes are generally bad, but better laws are good. For France, the benefits of the improvements in legal capacity of the seventeenth century may have influenced events in the eighteenth through at least two channels.

First, increased legal capacity lowered the transaction costs faced by centralized elites in organizing and thereby credibly constraining the Crown, preventing it from violating their newly won rights. The historical literature on eighteenth century France is full of descriptions of the corporatist state that eventually collapsed in Revolution in 1789. And it was the weight of elite privilege that made the budgetary impasse of the end of the eighteenth century such a crisis. However, this picture missing the significant amount of change that took place in the composition of this elite. In contrast to local elites, who were gradually experiencing an erosion of their tax rights during the eighteenth century (Kwass, 1998), the central elites who were largely given bureaucratic control in the seventeenth century, were successful in their bid to protect their monopolies, exemptions, and other privileges. Thus, for example, the Company of General Farms, which was composed of forty or so robe nobility, was given monoposony control of all indirect taxes between 1661 and 1681 (approximately two-thirds of ordinary receipts). Johnson (2006a and 2006b) outlines how these nobles and their progeny successfully organized to protect this monoposony until the guillotine cut them out of power once and for all.

The Tax Farmers constrained the King by threatening to withhold loans if he reneged on his agreements with them. In order to do this, they had to solve a collective action problem which stemmed from the powerful incentives facing each individual tax collector to deviate from this punishment strategy and offer a loan to the King. This would simultaneously, make the King and the deviating farmer richer, but at the cost of undermining the long-run credibility of the tax collectors as a whole. Once the equilibrium unraveled, the King could predate in the future with no fear of consequences. Among the several institutions which allowed the Farmers to maintain cooperation among themselves, while at the same time amassing the amount of capital necessary to threaten the King in the first place, were laws which allowed them to do things like separate ownership in the Tax Farm from control rights and laws which explicitly gave them the legitimate power to tax in localities which previously were controlled by local elites (Balla and Johnson, 2009). Along with these powers of taxation came jurisdiction in legal affairs. One need not look far to see many other examples of centralized elites aligning themselves against the absolute monarchy during the eighteenth century (e.g. Bien, 1987). What distinguished the centralized elites in their successes from the local elites was that the central elites possessed a comparative advantage in utilizing the legal system in their favor.

The second respect in which increased legal capacity during the seventeenth century set France on the path of modern growth, was that it may have directly affected the social identity of French men and women. Sociologists distinguish between ascriptive and meritocratic social systems. Ascriptive systems define a person's social identity in terms of roles assigned at birth (e.g. race, caste, place of origin, etc...). Meritocratic systems, on the other hand, allow status to be earned. Furthermore, psychologists, sociologists and, more recently, economists, have emphasized the importance of "situationalism" in affecting behavior (Swidler, 1986; Ross and Nisbet, 1991). Situationalism holds that subjective constructs of meaning play a vital role in determining what social identity an individual will call on when responding to incentives in their environment. Recent research suggests that when individuals are primed on their ascriptive social identity they are less responsive to economic incentives, regardless of their status in the ascriptive regime.<sup>38</sup> Rigid, status-bound, social systems can therefore inhibit economic and entrepreneurial activity both directly and indirectly.

The nature of the legal changes we have discussed in this article were to homogenize the law. The Code Michau described the procedures for collecting taxes and conducting court cases in *all* regions of France and had to be written in a general enough way to apply everywhere. The intendants did not owe loyalty to ancestry or local custom, they owed it to Versailles. In this sense, the absolute monarchy was a leveling force. While few would associate the "ancien régime" with the word "equality", the weight of the evidence is that there were, clearly, many margins on which the legal and

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<sup>38</sup> For example, in a recent study Hoff and Pandey (2011) used randomized lab experiments to show that children from Northern India who were primed on Caste (ascriptive identity) responded less to economic incentives than those in a control group. Importantly, this finding held for all castes, not just dalits. As a social identity, the caste system is not just highly inequitable, it may also be incompatible with economic incentives.

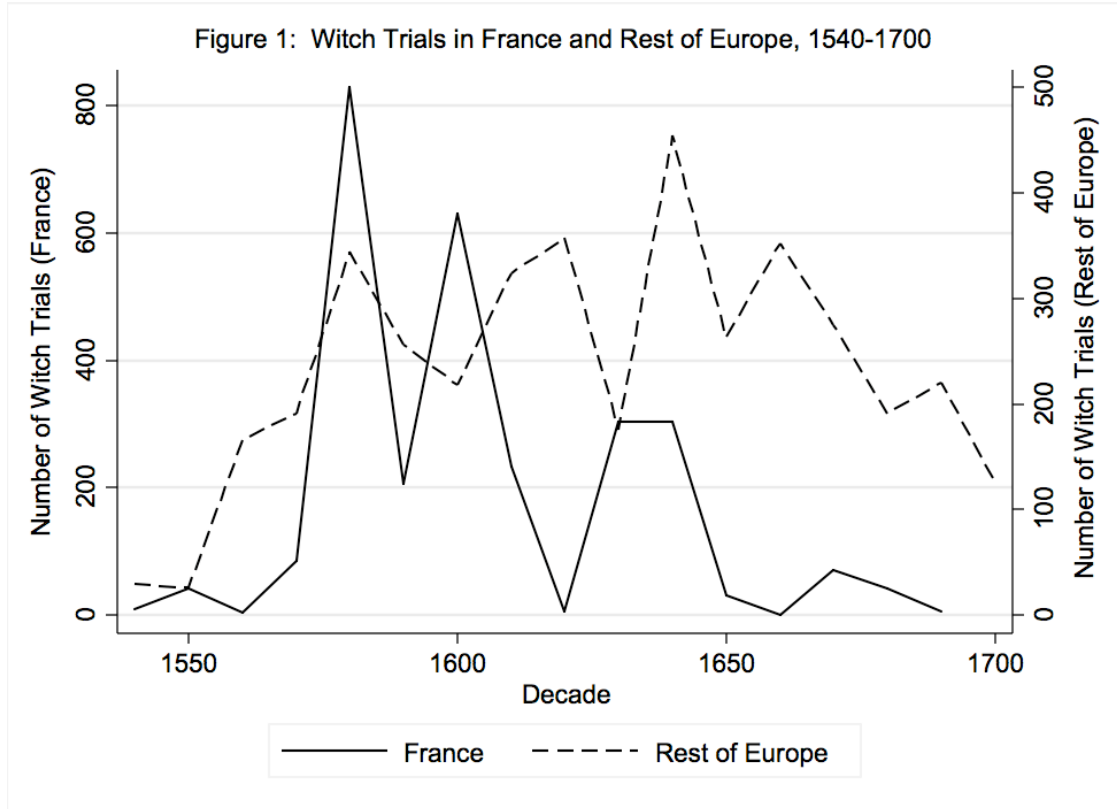
fiscal institutions developed by the French tax state were more equitable (less ascriptive) than the local institutions being displaced (family, village, church, etc...)<sup>39</sup> Witchcraft trials are just an extreme, and for that reason observable, example of this tendency.

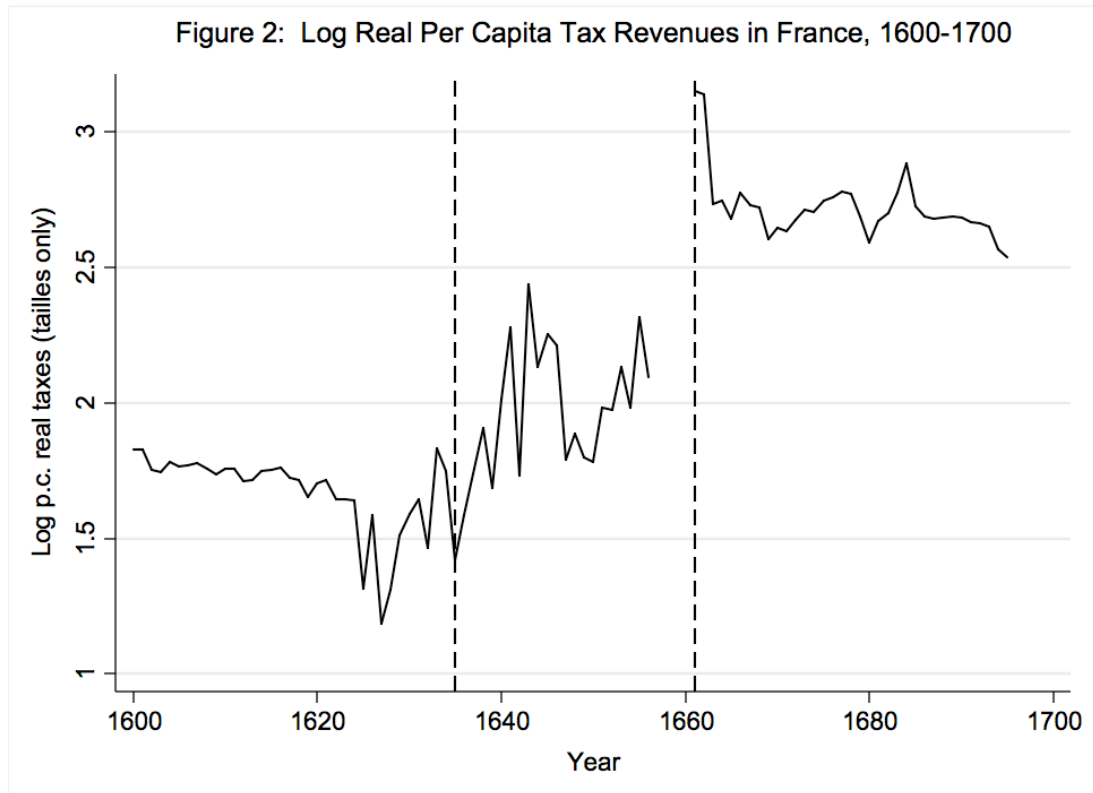
In the elusive quest for the sources of modern economic growth, a recent literature argues that it was spurred by changes in the way people *thought* well before the steam engines were invented and the factories organized (Mokyr, 2009; McCloskey, 2010). A related line of reasoning has argued that institutional innovations that created secure property rights in the seventeenth century acted as the catalyst for what would come (North and Weingast, 1989). We see our research as supportive of both points of view. Formal institutions did matter. In France, fiscal and legal centralization had profound effects, not just on lending between the King and his Financiers, but also on the lowest of the low, those who could potentially be accused of witchcraft. Furthermore, to the extent that the new order created by the absolutist state was more equitable than those local orders which it replaced, it wasn't just magistrates and marginalized widows who benefited. By providing a broader, more open-minded, identity for all French men and women to call upon, the fiscal and legal revolutions of the seventeenth century may have laid the foundations for modern economic growth.

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<sup>39</sup> To adopt the language of public finance, we believe centralized institutions increased "horizontal equity". That is, individuals of equal state were treated more equally. "Vertical equity", how those of different estates were treated, is a more difficult question to address.

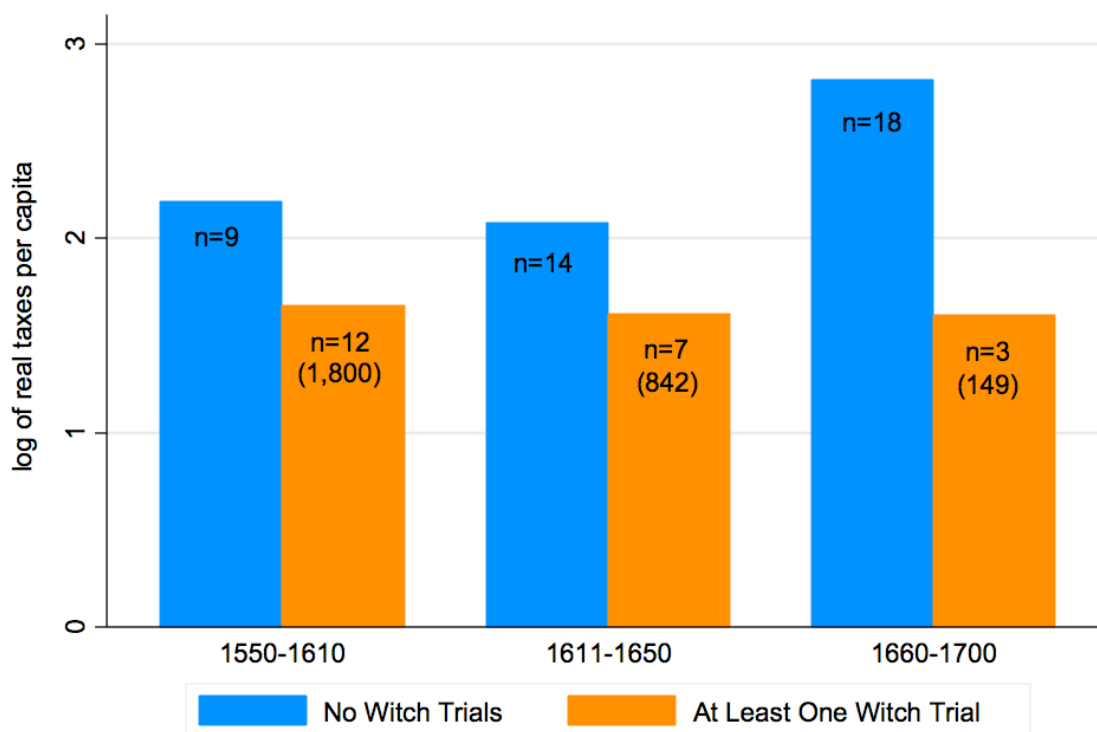
## Figures and Tables





Notes: For each region, the per capita fiscal capacity measure is constructed as net direct tax revenue (taille revenue) divided by estimated population in 1700. This is then multiplied by the silver content of the livre tournois to convert to real values. The value on the y-axis is equal to the average of the logged fiscal capacity measures for all twenty-one regions in each year.

Figure 3: Fiscal Capacity and Witch Trials Across French Regions, 1550-1700



Notes: For each region, the per capita fiscal capacity measure is constructed as net direct tax revenue (taille revenue) divided by estimated population in 1700. This is then multiplied by the silver content of the livre tournois to convert to real values. The value on the y-axis is equal to the average of the logged fiscal capacity measures for the regions in each category during each period. In each bar, (n) is equal to the number of regions in each category (witch trial = 0 or witch trial = 1). Numbers in parentheses indicate the number of trials across all witch trial regions during that period.

Figure 4: Royal Edicts, 1550–1679

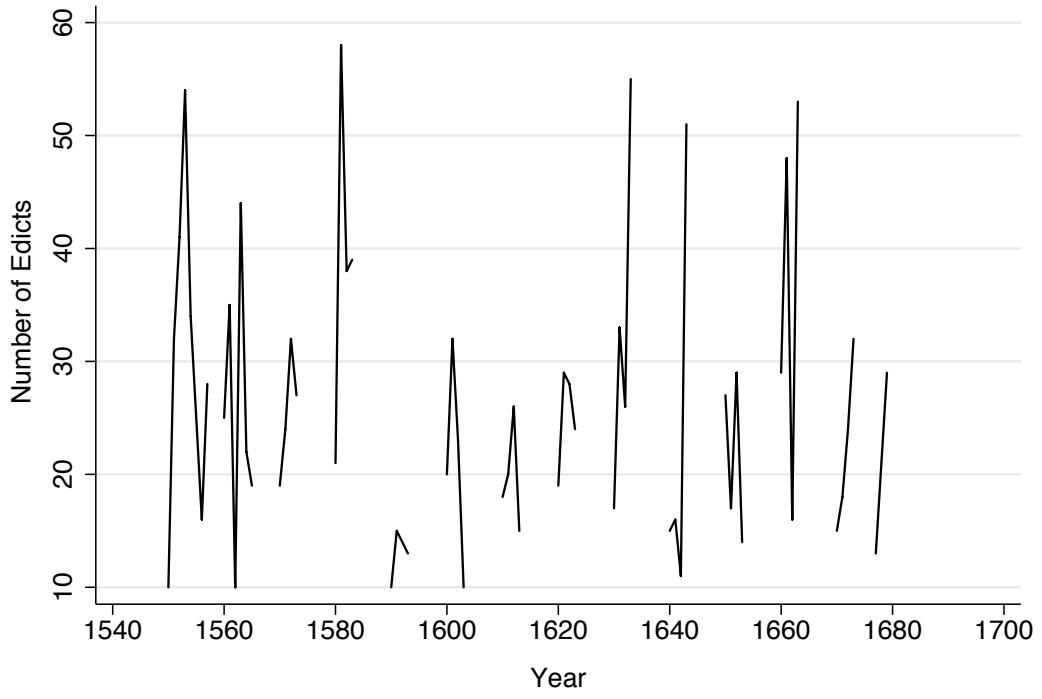
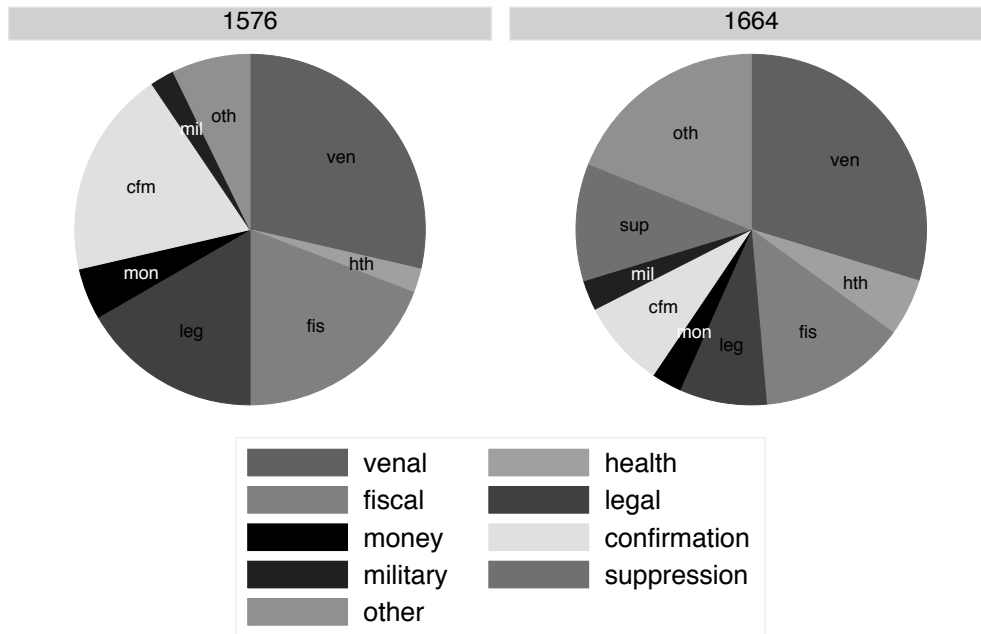


Figure 5: Composition of Edicts Issued by Monarchy, 1576 and 1664



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