

Taxes, Lawyers, and the Decline of Witchcraft in France

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Introduction: Smith vs. Hobbes



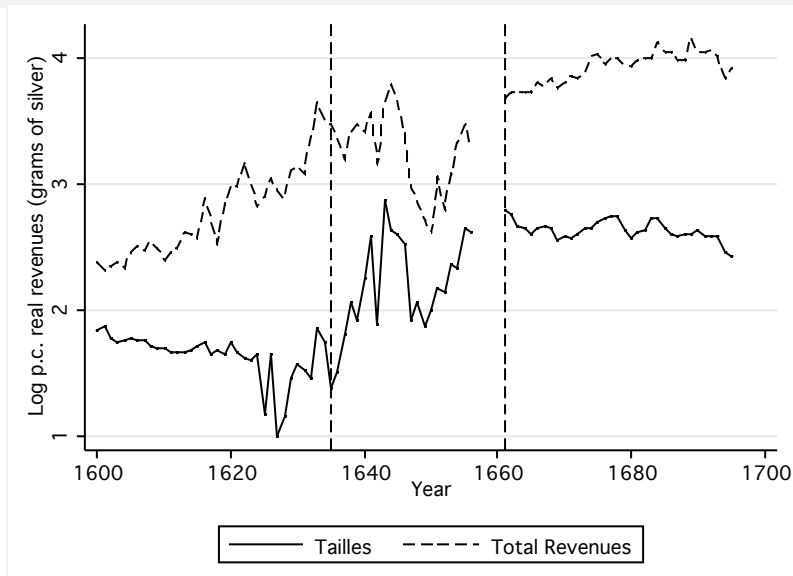
Introduction: Smith vs. Hobbes

“... 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.



Introduction: Smith vs. Hobbes



Introduction: Smith vs. Hobbes



Introduction: Smith vs. Hobbes

- State capacity is an important determinant of economic performance:
- Large literature in sociology (Weber, 1922, 1968; Tilly, 1990; Kiser and Kane, 2001).
- Bockstette et al. (2002) and Chanda and Putterman (2007) observe a relationship between state capacity and subsequent growth.
- However, we know little about the process through which increases in fiscal capacity affects broader outcomes, like **legal capacity**.
- Besley and Persson (2009, 2011) theorize that fiscal and legal capacity are **complements**.

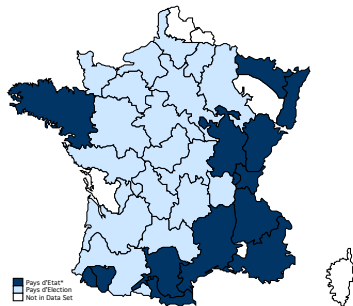
Introduction: Smith vs. Hobbes

- Large literature uses Britain as a benchmark as it was the first industrial nation (Brewer, 1988; O'Brien, 2005).
- However, the British path to modern economic growth was unique.
- Specifically, Britain, or at least, England had a highly centralized elite from the middle ages onwards (Dincecco, 2009; Bogart and Richardson, Forthcoming).
- Rest of Europe was highly fragmented.

Introduction: Smith vs. Hobbes

We focus on early modern France

- Fiscal and Legal fragmentation were closely related and costly
- There were multiple tax authorities. Rouen to Nantes thirty tolls. (Heckscher, 1955; Johnson, 2006)
- “...we have more laws in France than in the rest of the world put together... so much is left to the opinion and decision of our judges that never was their liberty more unshackled....”
-Montaigne (d. 1592)



Introduction: Smith vs. Hobbes

Within region fragmentation is prodigious:
Haute-Auvergne (Greenshields, 1994)

- Between 1587 and 1664 one royal présidial court, five local baillage courts and 15 maréchaux for about 175,000 inhabitants.
- As a result, many crimes handled by local nobility who also manipulated the laws to their advantage.
- For example, many seigneuries had their own weights and measures within their territory (Greenshields, 1994; Hamscher, 1976).



Introduction: Smith vs. Hobbes

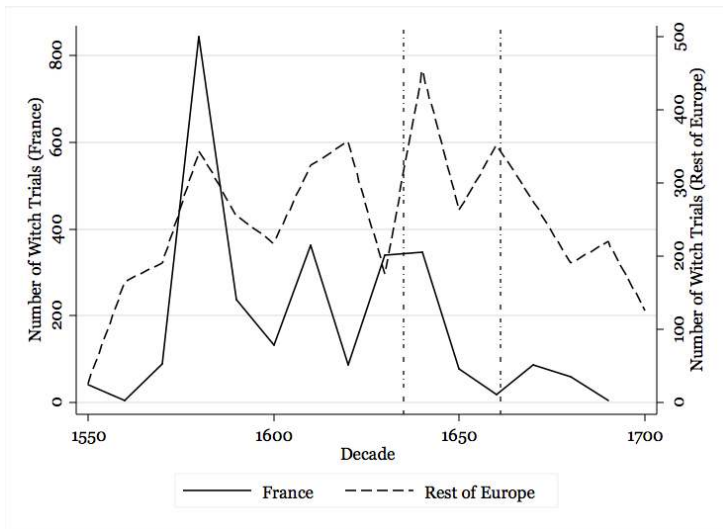
“Prolonged witch hunting is as good a barometer as any for measuring weakness in a state” (Soman, 1989)

- Little consistent data on deviation of locally enforced rule of law from ‘modern’ standards of procedure.
- We use witch trials as a proxy of legal capacity in the early modern period.
- A simple theoretical model and historical evidence suggest that the rise of the fiscal state led to the decline in witch trials.
- We find that witch trials and fiscal capacity are strongly correlated in panel data set.

Introduction: Smith vs. Hobbes



Introduction: Smith vs. Hobbes



French witch trials decline before trials elsewhere. Why?

Witch Trials

European Witch Hunt peaked during the age of Shakespere, Descartes and Newton

- 40,000 executions between 1450–1750.
- No consensus as to why it began or why it ended.
- Witch hunt was fiercest in “border lands”. Organized states put an end to uncontrolled witch-hunting (Levack, 2006; Soman, 1978).



We claim that the witch trials can be used as a proxy for lack of legal development

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Witch Trials

Two components of the early-modern definition of witchcraft



Maleficia



Diabolism

Witch Trials

- Witchcraft (especially diabolism) left no physical evidence.
- Most legal codes restricted use of torture (e.g. Ordinance of Villiers Cotterets (1539)).
- Circumstantial evidence, at least, required for implementation of torture (Langbein, 1976, 2006).
- Demonologists argued that judges and magistrates should relax legal standards in witchcraft cases.

According to Jean Bodin:

proof of such evil is so obscure and difficult that not one of a million witches would be accused and punished if regular legal procedure were followed (quoted in Midelfort, 1972, 19)

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Witch Trials

- Witch-fears sparked trials but fear of witches was endogenous:
[s]uccessful witch-trials confirmed to potential accusers the presence of witches, encouraging them to act. Rather than allaying local fears, witch-hunts spread them (Gaskill, 2010, 80).
- Trials beget more trials:
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 (Levack, 2006, 53).

Hence a trial in one area could cascade causing more trials in nearby regions

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Model

Want the model to capture the following...

- Witch trials required a deviation from “official” legal procedure
- Witch accusations often came from below (or at least had popular support)
- Belief in witches was reinforced by nearby trials
- Magistrates faced trade-off when deciding whether to prosecute: **Accommodate popular belief vs. Disorder**

Model

- Not really interested in explaining why the central authority **asserts control over legal system** when attempting to increase fiscal capacity.
- We are interested in why the central authority might impose a **stricter interpretation of legal procedure** than local authority.

Model

- Two regions $i \in \{1, 2\}$, each under the authority of a local court: l_i .
- Popular demand for witch trials is denoted by $d_i^* \in \mathbb{R}^+$
- Each local authority chooses the extent to which it will accommodate popular belief by allowing a deviation from formal legal procedure so as to try witches $s_i^l \in \mathbb{R}^+$.
- Deviation from formal procedures comes with a marginal cost of γ .

The local authority minimizes the following quadratic loss function:

$$\min_{s_i^l} u_i^l = \frac{(s_i^l - d_i^*)^2}{2} + \frac{\gamma(s_i^l)^2}{2}. \quad (1)$$

A Model

- Bottom-up demand for witch trials depends on local belief in witches, θ , which in turn depends on a parameter, ω , which reflects bad weather and other exogenous shocks and another term reflecting the externality created by trials in neighboring jurisdictions.

$$d_i^*(\theta_i) = \omega + \beta s_j,$$

- The symmetric Nash equilibrium when the central court does not intervene is:

$$\hat{s}_i^l = \hat{s}_j^l = \frac{\omega}{(1 + \gamma - \beta)}. \quad (2)$$

Which is increasing in β for $\beta \in (0, 1)$.

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A Model

If the central authority intervenes in both territories, then it internalizes the “belief externality” by solving

$$\min_{s_i^c, s_j^c} u_i^l = \left[\frac{(s_i^l - d^*)^2}{2} + \frac{\gamma(s_i^l)^2}{2} \right] + \left[\frac{(s_j^c - d^*)^2}{2} + \frac{\gamma(s_j^c)^2}{2} \right]$$

The optimal number of sentences is given by

$$\hat{s}^c = (1 - \beta) \left[\frac{\omega}{1 + \gamma - \beta} \right] = (1 - \beta) \hat{s}_i^l. \quad (3)$$

Result: The central authority permits (weakly) fewer deviations from formal legal procedure and, thus, fewer witchcraft trials than does that local court: $s_i^l \geq s_i^c$ for $i \in \{1, 2\}$.

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Model

The case of the apprentice weaver Bacqué

- In Gascony two local judges took young Bacqué to over thirty villages.
- Villagers would line up while Bacqué declared each a witch or not.
- He “identified” about 6,210 witches in this way.
- Henri Pussort, uncle of J.B. Colbert intervened.



Model

The case of the apprentice weaver Bacqué

- Pussort's efforts to stop the trial were blocked by nobles at Versailles.
- Took the intervention of Colbert himself to have Bacqué transferred to Bastille and witch trials stopped.



Model

Colbert ultimately stopped the affair by annulling all previous prosecution through a royal edict which...

*... prevents the courts and averts the disorders that would be caused by a procedure so irregular that it would envelop the majority of inhabitants of the aforementioned province, trouble the repose of families, and violate the **rules of justice** ...*

Model

This model consistent with other types of criminal behavior. Any crime whose legitimacy is increased by others' beliefs and in which evidence is difficult to evaluate. For example . . .

- Arson
- Tax Evasion
- Infanticide

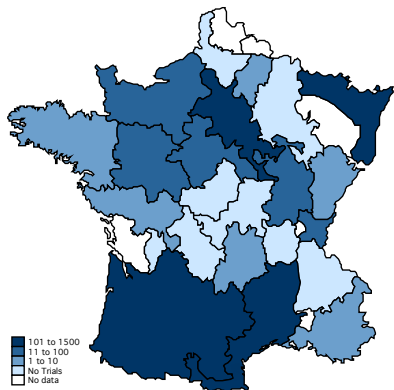
Data

- We would like to identify whether fiscal capacity and legal capacity were correlated across time and space in 16th and 17th century France
- We proxy fiscal capacity with real per capita tax receipts from the most important direct tax, the Taille.
- We proxy legal capacity by the number of witch trials in a given region.

Data

Witch Trial Data

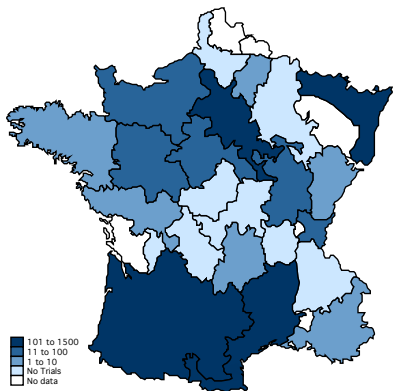
- Base data on 2,261 witch trials in France between 1550-1700 was collected from various primary and secondary sources by Marc Carlson.
- We also create a “maximal” data set with an additional 572 trials from various sources (**Not in paper**)
- We recoded these data to correspond to the appropriate tax region (*généralités*).



Data

Witch Trial Data

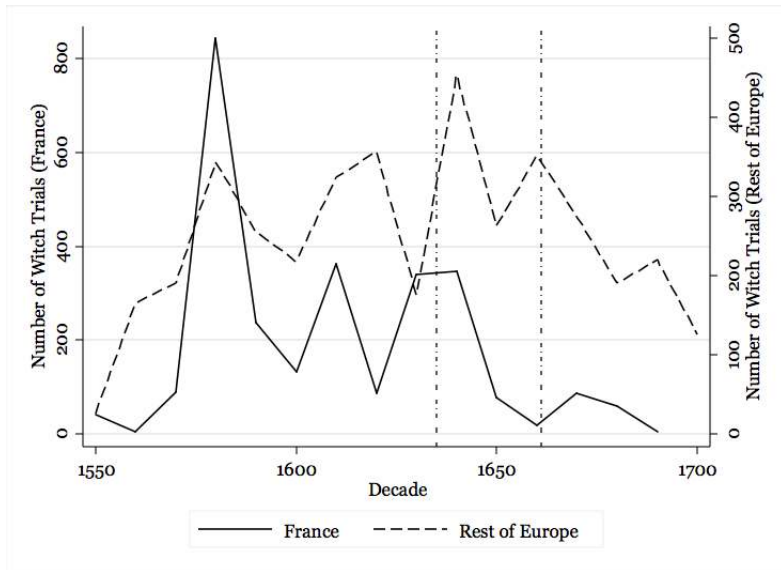
- We omit the Swiss territories (Geneva, Neuchâtel, and Belfort) and Lorraine despite their close links to French institutions.
- Also omit North Eastern trials listed as Nord since it was vague what tax region (if any, they belong too).
- Finally, dropped 530 trials from Gascony in 1607 that were falsely attributed to Pierre de Lancre.



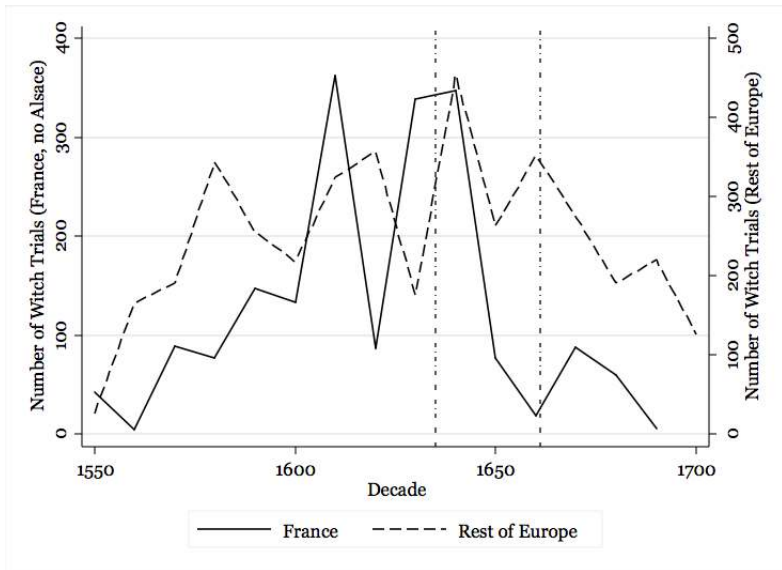
Data



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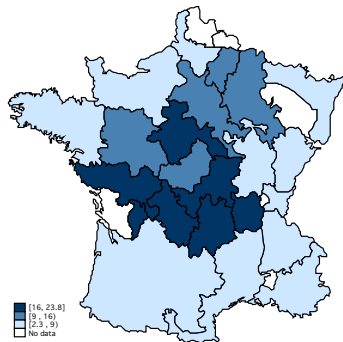
Data



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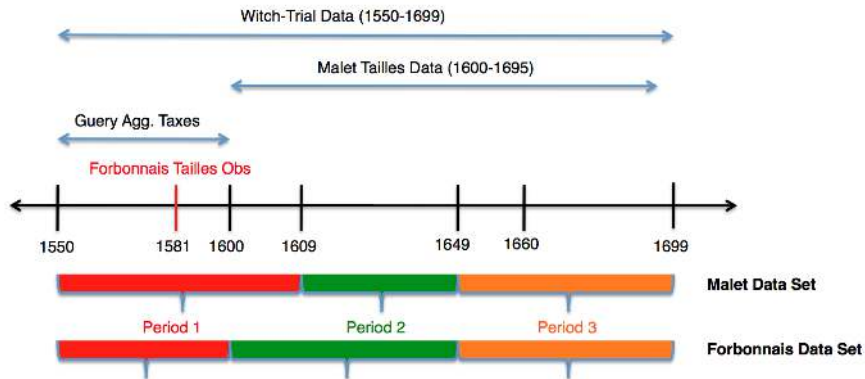
Tax Revenue Data

- The Tailles constituted between 1/3 and 2/3 of ordinary revenues between 1550 and 1700.
- Collected at the Généralité level. There were 33 Généralités over the course of the 16th and 17th centuries. We aggregate these into 21 consistent regions.
- Missing tax data for 1657-1660.



Data

Regional tax data missing for 1550-1599. We adopt two strategies:



Data

- Convert tax data into silver equivalents
- Use population data from Dupâquier around 1700 to make per capita

Region	Witch Trials (Base)	Witch Trials (Max)	Tailles (Malet)	Tailles (Forbonnais)	Pop. (1700)
Paris	124	124	14.5	14.2	1426
Soissons	1	1	15.7	15.7	322
Orleans	18	18	18.9	19.7	607
Amiens	0	0	7.8	7.6	520
Chalons	0	167	10.9	10.6	693
Bourges	0	0	14.9	16.0	290
Normandy	13	202	6.8	7.3	1890
Tours	16	16	16.7	16.8	1069
Bourgogne	81	81	3.3	3.6	806
Moulins	0	0	21.1	21.7	324
Poitiers	5	5	23.6	24.8	612
Bretagne	1	1	2.5	2.6	1655
Franche-Comte	4	203	4.4	3.8	340
Riom	2	2	24.0	23.9	560
Limoges	0	0	20.3	21.4	585
Metz-Alsace	1043	1043	5.0	4.5	425
Lyon	0	0	24.2	24.6	363
Grenoble	0	0	10.9	9.8	544
Gascony	272	272	4.1	4.1	2512
Montpellier	679	679	2.2	2.3	1520
Provence	2	2	1.8	2.3	640

Witch Trials

- Base Malet data set has 21 regions and 3 periods: 1550-1609, 1610-1649, 1650-1699.
- Begin by creating a dichotomous variables =1 if there was at least one witch trial, =0 otherwise.

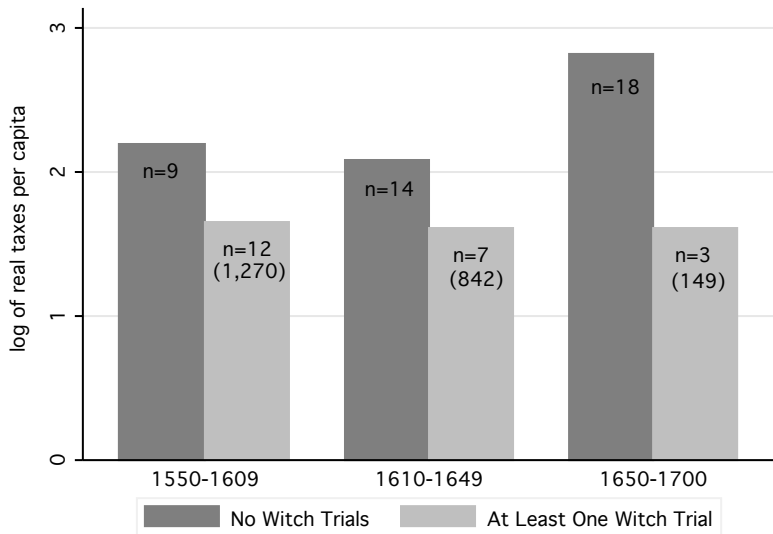
... it is putting a very high price on one's conjecture to roast a man alive for them... (Montaigne, 1580, 1910)

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... it is putting a very high price on one's conjecture to roast a man alive for them... (Montaigne, 1580, 1910)

Data



Data

- Regions with greater fiscal capacity were less likely to prosecute witches.
- The number of regions where trials were recorded declined from 12 in the 1550–1610 period to 3 in the 1660–1700 period.
- Average tax receipts in ‘witchcraft’ regions remained constant. Regions which were abandoning witch trials were doing so at the same time as their fiscal capacity was increasing.

Econometrics

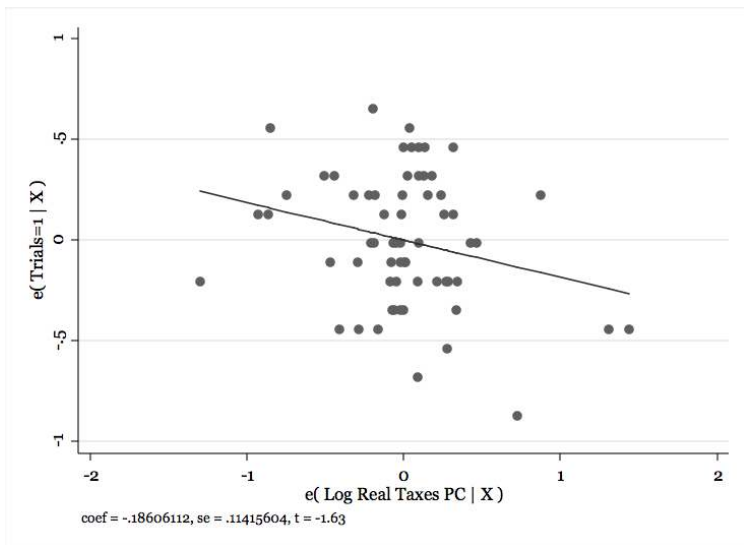
- We would like to control for time-variant unobservables common to all regions (e.g. changing mentalités, weather, etc. . .) and region-specific time invariant factors (e.g. cultures, geography, etc. . .).
- Begin by running logits on the dichotomous witch trial variable.
- Numbers in brackets are odds-ratios

Econometrics

Panel A: **Malet Sample**: Dep. Var: Witchcraft Trials = 1, No Witchcraft Trials = 0

	Logit		Logit FE	
	(1)	(2)	(3)	(4)
Log Taxes Per Capita	-0.93*** (0.32) [0.39]	-0.84** (0.35) [0.43]	-3.67** (1.75) [0.03]	-5.73* (3.20) [0.003]
1609-1649 (dummy)		-1.07 (0.69) [0.34]		-2.53* (1.38) [0.08]
1650-1699 (dummy)		-1.69** (0.80) [0.19]		-1.76 (1.35) [0.17]
Obs	63	63	39	39
Groups	21	21	13	13
LR X ²	10.06	15.42	10.44	17.22

Econometrics



Econometrics

- The count data on trials are over-dispersed (variance greater than mean).
- We estimate a series of Negative Binomial Regressions using both the Malet and Forbonnais data sets.
- Numbers in brackets are Incident Rate Ratios.

Econometrics

Panel B: **Malet Sample**: Dep. Var.: Sum Trials = Count of Witchcraft Trials

	Negative Binomial		Neg. Binomial FE	
	(1)	(2)	(3)	(4)
Log Taxes Per Capita	-1.33*** (0.46) [0.26]	-1.80*** (0.67) [0.17]	-0.76** (0.33) [0.47]	-0.73* (0.43) [0.48]
1609-1649 (dummy)		0.70 (1.07) [2.02]		-0.95** (0.50) [0.39]
1650-1699 (dummy)		1.54 (1.41) [4.67]		-1.53** (0.66) [0.22]
Obs	63	63	42	42
Groups	21	21	14	14
LR X^2	8.03	9.10	5.20	10.37
X^2 of $H_0: \alpha=0$ (p-value)	0.00	0.00		

Econometrics

Panel C: **Forbonnais Sample**: Dep. Var.: Sum Trials = Count of Witchcraft Trials

	Negative Binomial		Neg. Binomial FE	
	(1)	(2)	(3)	(4)
Log Taxes Per Capita	-1.39*** (0.45) [0.25]	-1.53*** (0.60) [0.22]	-0.73** (0.33) [0.48]	-0.91** (0.43) [0.40]
1609-1649 (dummy)		0.22 (1.12) [1.25]		-0.92* (0.51) [0.40]
1650-1699 (dummy)		0.66 (1.14) [1.93]		-1.68** (0.65) [0.19]
Obs	63	63	42	42
Groups	21	21	14	14
LR Test (p-value)	9.59	9.90	5.03	10.21
X^2 of $H_0: \alpha=0$ (p-value)	0.00	0.00		

Econometrics

As robustness checks. . .

- Run count regressions on the “Maximal” data.
- Run count regressions dropping the Alsace outlier.
- Run count regressions using witch trials per capita.

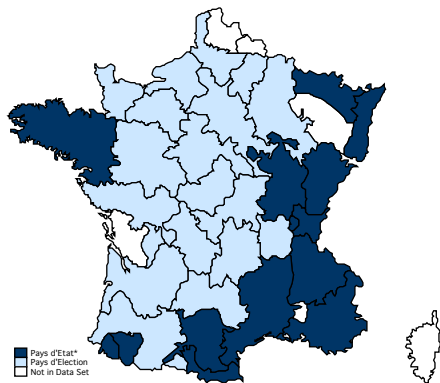
Econometrics

	<u>Maximal Count</u>	<u>No Alsace</u>	<u>Per Capita Trials</u>
	(1)	(2)	(3)
Log Taxes Per Capita	-0.51* (0.31) [0.60]	-0.61* (0.36) [0.54]	-0.013** (0.006) [0.37]
1609-1649 (dummy)	-0.66 (0.42)	-0.44 (0.44)	-2.53* (1.38)
1650-1699 (dummy)	-1.23** (0.56)	-1.04* (0.56)	-1.76 (1.35)
Obs	45	42	63
Groups	15	14	21
Region Dummies	x	x	x

Econometrics

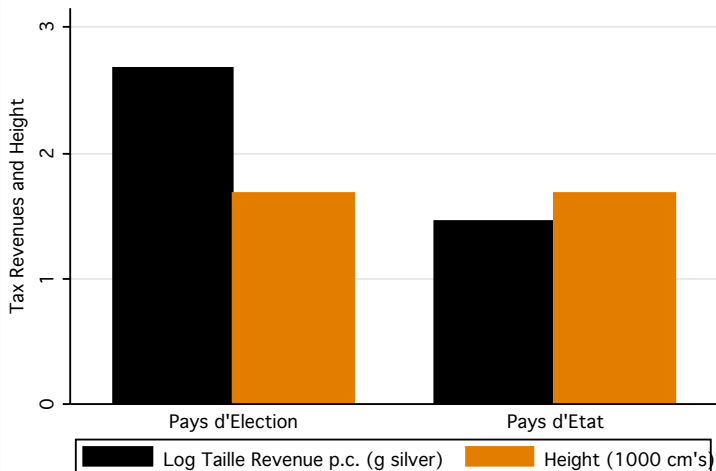
Instrumental Variables

- Pays d'état had much more bargaining power over taxes than did Pays d'éléción.
- Pays d'état were later additions to Monarchy and retained their representative bodies.
- Our instrument is dichotomous variable =1 if Pays d'état and =0 if Pays d'éléción.



Econometrics

Figure 4: Pays d'Etat, Pays d'Election, and Fiscal Capacity, 1550-1699



Econometrics

Table 4: IV Analysis of Fiscal Capacity on Witchcraft Trials, 1550-1699

Panel A: **Malet Sample**

Regression Model	1st Stage Log Taxes p.c.	2nd Stage Count of Witch Trials	Count of Witch Trials
	(1)	(2)	(3)
Pays d'Election = 0 Pays d'Etat = 1	-1.25*** (0.25) [-1.56]		
Log Taxes per capita		-171.75** (81.05) [-0.53]	-1.71*** (0.49) [0.18]
Years	1550-1699	1550-1699	1550-1699
Estimation Method	2SLS	2SLS	GMM Poisson (IV)
Observations	21	21	21
R Square	0.57	0.26	-
F Statistic	25.40	4.06	-

Edicts

- Econometric results suggest increases in fiscal capacity were accompanied by improvements in legal capacity.
- Were there actual changes in laws that accompanied this trend?
- Yes. 1604 Parlement of Paris requires all witch trials to be automatically appealed. 1629 Code Michau. 1682 Louis XIV issues edict banning witch trials.
- Can we look more generally at whether the central authority was imposing itself on surrounding regions?
- Under the direction of Colbert, all laws and edicts issued by the Crown since 1115 were compiled at the end of the seventeenth century. We use this source to identify how legislatively active the crown was and what kind of legislation was being created.

Edicts

**TABLE
CHRONOLOGIQUE,
CONTENANT
UN RECUEIL EN ABREGE'
DES ORDONNANCES,
EDITS, DECLARATIONS,
ET LETTRES PATENTES
DES ROIS
DE FRANCE,
QUI CONCERNENT LA JUSTICE,
la Police, & les Finances.**

Avec la date de leur enregistrement dans les Greffes des Cours
Souveraines.

Depuis l'année 1115. jusqu'à présent.

Par M^r GUILLAUME BLANCHARD, Avocat au Parlement,



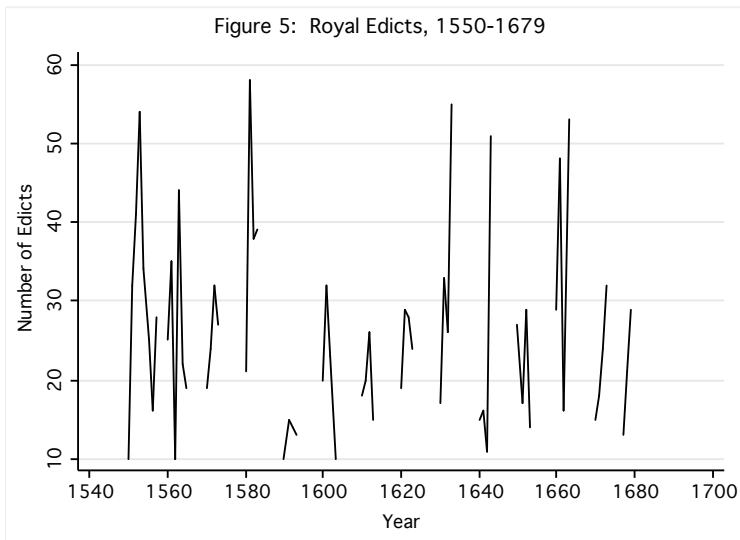
A PARIS,
Chez CHARLES DE SERCY au Palais, au sixième Pilier de la
grande-Salle, vis-à-vis l'escalier de la Cour des Aydes, à la
bonne Foy Couronnée.

M. DC. LXXXVII. F-1000
AVEC PRIVILEGE DU ROY,



- Edits, Déclarations, & Lettres Patentes des Rois de France. 1577*
de la même année. Fontaines t. 4. p. 529. HEN-
RY III.
1576.
- Declaration pour l'exécution des Ordonnances, concernant la
reformation des habits, portant en outre défenses aux roturiers
d'usurper le titre de Noblesse, & à leurs femmes de porter l'habit
de Dames. A Paris en Juillet 1576. reg. le 22. Decembre de
la même année. Fontaines t. 1. p. 924.
- Edict portant permission à toutes personnes qui tiennent Offices
à gages, & sans gages, du nombre de ceux qui ont été repeuz
venaux, de les resigner aux charges, & conditions portées par le
même Edict. A Paris en Juillet 1576. reg. au Parlement le 9. & en la
Chambre des Comptes le 11. Aoust suivant. Fontaines t. 2. p. 570.
F. les Declar. des 1. Decembre & April suivants.
- Edict portant création de deux Offices d'Audienciers, & de deux
Offices de Controlleurs en la grande Chancellerie de France, pour
servir par quartier conjointement avec les deux qui y sont établis
par celui du mois d'Octobre 1572. &c. A Paris en Juillet 1576. re-
gistré le 7. Septembre de la même année. Fontaines t. 1. p. 165. *Idy
t. 1. p. 757.*
- Declaration en consequence de celle du mois de Juillet 1575.
pour les privileges des Officiers de l'artillerie. A Paris le 22. Aoust
1576. Fontaines t. 2. p. 1148.
- Declaration pour l'enregistrement d'une Bulle du Pape, pour l'a-
lienation du temporel des Ecclesiastiques, &c. A Paris le 20. Aoust
1576. reg. le 7. Septembre de la même année. Fontaines t. 4. p. 568.
- Edict portant création d'un Office de Tresorier de France, &
d'un Office de General des Finances, alternatifs en chacune des
Generalitez de Lyon, Orleans, & Limoges. A Paris en Aoust 1576.
reg. le 25. Novembre de la même année. *Cabin p. 307. Fournival p.
301.*
- Edict portant reglement general pour les Finances dans le ressort
du Parlement de Bordeaux. A Paris en Aoust 1576. reg. le 11. en la
Chambre des Comptes le 16. Novembre de l'année suivante. *Font.
t. 3. p. 678.*
- Edict portant création d'un Office de President au Parlement de
Dijon. A Paris en Aoust 1576.
- Edict portant création de deux Offices d'Audienciers, & de deux
Controlleurs de l'Audience de la Chancellerie du Parlement de Pa-
ris, pour servir par quartier avec les deux Audienciers, & les deux
Controlleurs qui y sont établis. A Paris en Aoust 1576. reg. au Par-
le 9. & en la Chambre des Comptes le 27. Sept. suivant. *Idy t. 1. p.
740.* Bb ij

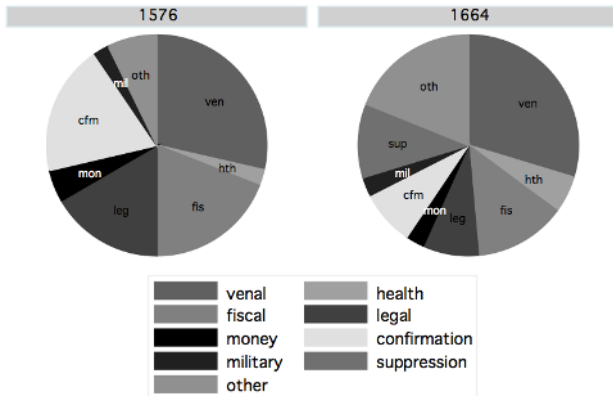
Edicts



Edicts

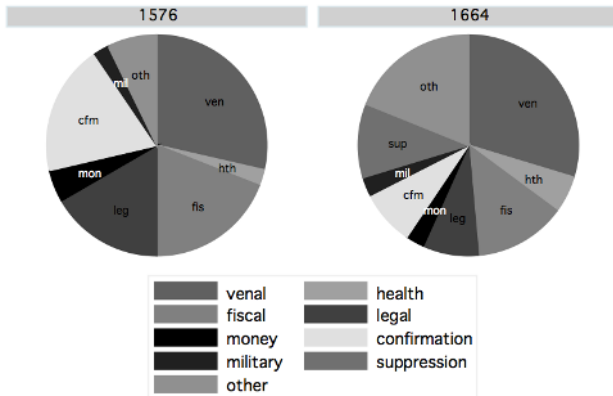
- The period from 1550-1580 is just as active as 1630-1680.
- What about the composition of laws being promulgated?
- For 1576 and 1664 (two years with similar amounts of legislation) we count the number of laws falling into each of 8 categories.

Edicts



Difference between 1576 and 1664 is the amount of legislation aimed at suppressing local rights and privileges.

Edicts



Difference between 1576 and 1664 is the amount of legislation aimed at suppressing local rights and privileges.

Conclusions

- In the middle of the seventeenth century the centralized state played an increasingly prominent role in coordinating the behavior of local legal jurisdictions.
- This is consistent with the work of Wallis and North (2011) and Olson (2000)
- Also provides support for the claims of Besley and Persson (2009, 2011) that fiscal and legal capacity are complements.

Conclusions

- The decline of witch trials in early modern France was driven less by changes in preferences (mentalités) than by a process of legal and fiscal centralization.
- This supports the views of Soman (1989, 1992) and Levack (2006) over those of Mandrou (1968, 1979).

Conclusions

- In contrast to the traditional emphasis by economists on the importance of constraints on the centralized state (Brennan and Buchanan, 1980; North, 1981; North and Weingast, 1989; Acemoglu et al., 2005, 2001), our findings highlight the importance of increased state capacity for the development of a favorable institutional environment for economic growth.
- Democracy is almost certainly desirable but, at least in France, we agree with Tocqueville (1998) that the centralizing policies of the Absolute Monarchy laid the foundations in the seventeenth century for what would eventually come to pass by the end of the eighteenth century (Johnson, 2006; Balla and Johnson, 2009).

Support

Panel A: Malet Sample

		Mean	Std. Dev.	Min	Max	Observations
Log Taxes Per Capita	overall	2.15	0.96	0.00	3.57	N = 63
	between		0.81	0.83	3.17	n = 21
	within		0.54	0.73	3.94	T = 3
Witch Trials (dummy)	overall	0.35	0.48	0.00	1.00	N = 63
	between		0.31	0.00	1.00	n = 21
	within		0.37	-0.32	1.02	T = 3
Sum Trials (count)	overall	35.89	151.00	0.00	1032.00	N = 63
	between		88.26	0.00	347.67	n = 21
	within		123.55	-311.78	720.22	T = 3

Support

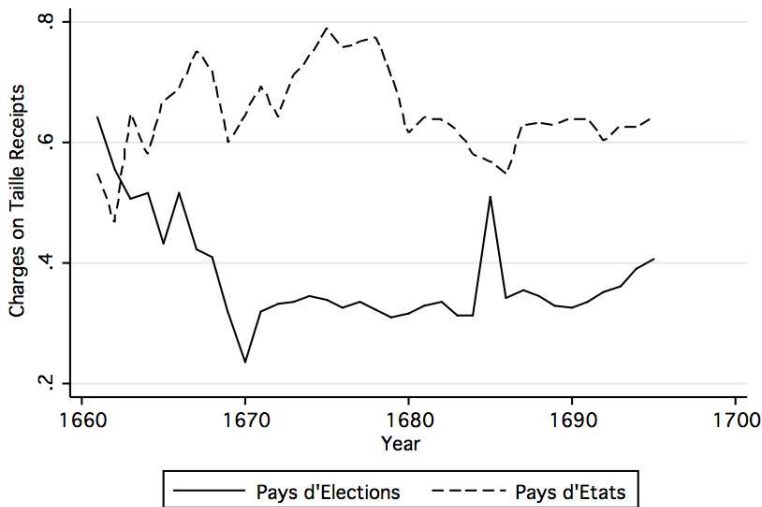
Panel B: Forbonnais Sample

		Mean	Std. Dev.	Min	Max	Observations
Log Taxes Per Capita	overall	2.29	1.00	0.00	3.65	N = 63
	between		0.85	0.83	3.36	n = 21
	within		0.54	1.03	4.09	T = 3
Sum Trials (count)	overall	35.89	149.23	0.00	1001.00	N = 63
	between		88.26	0.00	347.67	n = 21
	within		121.37	-311.78	689.22	T = 3

Support

1. <i>Plainte or Dénonciation</i> A complaint or accusation by the injured party or his representative, received by a judge.	
2. <i>Information</i> Depositions of witnesses, usually against the accused, gathered by a judge.	
3. <i>Rapport du Chirurgien</i> A report of the medical examination undertaken in cases of physical abuse, carried out by a surgeon.	
4. <i>Lettres Monitoires</i> A summons to the general public to reveal information, published when the number of witnesses was insufficient.	
5. <i>Décrets de prise de corps^a or ajournement personnel^b</i> Decrees demanding the arrest ^a or appearance ^b of the accused.	
6. <i>Interrogatoire or interrogation</i> The examination of the accused by a judge.	
7. <i>Conclusions du Procureur</i> Procureur recommends either:	
(a) <i>Conclusions préparatoires</i> and or (b) <i>Conclusions définitives</i>	
PROCÈS EXTRAORDINAIRE	PROCÈS ORDINAIRE
8. <i>Récolement</i> Confirmation or Alteration by witnesses of depositions in <i>Information</i>	8. <i>Sentence by Judge</i>
9. <i>Confrontation</i> The accused meets witnesses to test their credibility.	END OF CASE 1
10. <i>Conclusions du Procureur</i> Either:	(b) <i>Conclusions définitives</i>
(a) <i>Conclusions préparatoires</i> or	<i>Sentence by Judge</i>
11. <i>Faits Justificatifs</i> Torture evidence or witness to produce in favor of the accused confession	END OF CASE 2
12. <i>Conclusions Définitives du Procureur</i>	
13. <i>Sentence by Judge.</i>	
END OF CASE 3	

Support



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