

Enlightenment and the Long-Term Persistence of the Habsburg Administrative Tradition

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Motivation and contribution

- Past institutions can have persistent effects on current norms, values, and preferences:
 - evidence on how past institutions affect people's culture and the interaction between citizens and institutions.
(Putnam 1993; Alesina and Fuchs-Schündeln 2007; Nunn 2009; Tabellini 2010; Alesina and Giuliano 2015; Grosfeld and Zhuravskaya 2015; Becker et al. 2016; Guiso et al. 2016; Lowes et al. 2017; Bazzi et al. 2020; Becker et al. 2020)
- Little attention given to the analysis of:
 - long-term effects of past institutions on the functioning and outcomes of present-day ones;
 - mechanism through which historically institutions can persist nowadays.

Motivation and contribution

- We analyze the persistent effects of some historical institutions on the outcomes of current (formal, public) institutions by:
 - exploiting the Enlightenment-inspired administrative reform implemented in the Duchy of Milan by the Habsburgs in 1755:
 - introduction of the *Convocato Generale degli Estimati* as an assembly form of self-government at the municipality level;
 - comparing Habsburg vs. Savoy House “administrative infrastructures”:
 - self-government at the local level vs. highly centralized administrative system;
 - analyzing current administrative efficiency differentials in providing public goods and services to the local community with respect to its needs;
 - modeling the persistence of an “administrative tradition”:
 - administrative values may persist over time only if there exists a within-institution channel driving their transmission:
 - ✓ model of “bureaucracy enculturation” based on learning at the workplace.

Outline of the presentation

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Historical background – Context

- The emergence of the “modern state” in the 18th century was accompanied by:
 - a process of “fiscal centralization” (Dincecco and Katz 2014) and state capacity building (Besley and Persson 2009, 2011; Acemoglu and Robinson 2019);
 - a process of “administrative infrastructuring” (Dincecco and Katz 2014) through the homogenization of administrative functions, practices, and structures and the allocation of powers and functions to different government levels.
- The process of “administrative infrastructuring” evolved in different ways according to the local administrative system implemented by the public authorities (Savoia and Sen 2015; Acemoglu and Robinson 2019):
 - in some cases (e.g. Habsburgs), political-administrative functions and powers were decentralized at the local level even if a certain degree of external control and supervision was maintained at the central level;
 - in other cases (e.g. Savoy House), most functions and powers were concentrated at the central level.

Historical background – Key events

14 th century	Savoy House (Principality of Piedmont)	Duchy of Milan
16 th to 17 th century	Savoy House (Duchy of Piedmont)	Duchy of Milan under Spanish domination
Spanish Succession War (1701-1714)	Savoy House annexed territories of the Duchy of Milan	Duchy of Milan under Habsburg domination, losing territories
Polish Succession War (1733-1738)	Savoy House annexed territories of the Duchy of Milan	Duchy of Milan under Habsburg domination, losing territories
Austrian Succession War (1740-1748)	Savoy House annexed territories of the Duchy of Milan until the signature of the Treaty of Aix-la-Chapelle (1748), imposing a frontier between the Savoy House and the Habsburgs	
	Savoy House	Duchy of Milan under Habsburg domination
Administrative reformism	Savoy House implemented a highly centralized administrative system	Habsburgs implemented an administrative system based on citizens' participation in municipal public affairs
French occupation (1797-1815)	Administrative and institutional homogenization with the imposition of the French administrative model and body of laws	
Congress of Vienna (1814-1815) and restoration of pre-Napoleonic frontier between Savoy House and Habsburgs	Savoy House (Kingdom of Sardinia) restored pre-Napoleonic administrative system	Habsburgs restored the pre-Napoleonic administrative system
Italian unification process starts (1859)	Savoy House (Kingdom of Sardinia) annexed the Habsburg-ruled Milanese territories, and imposed its administrative model and body of laws	

Historical background – Habsburg administrative system

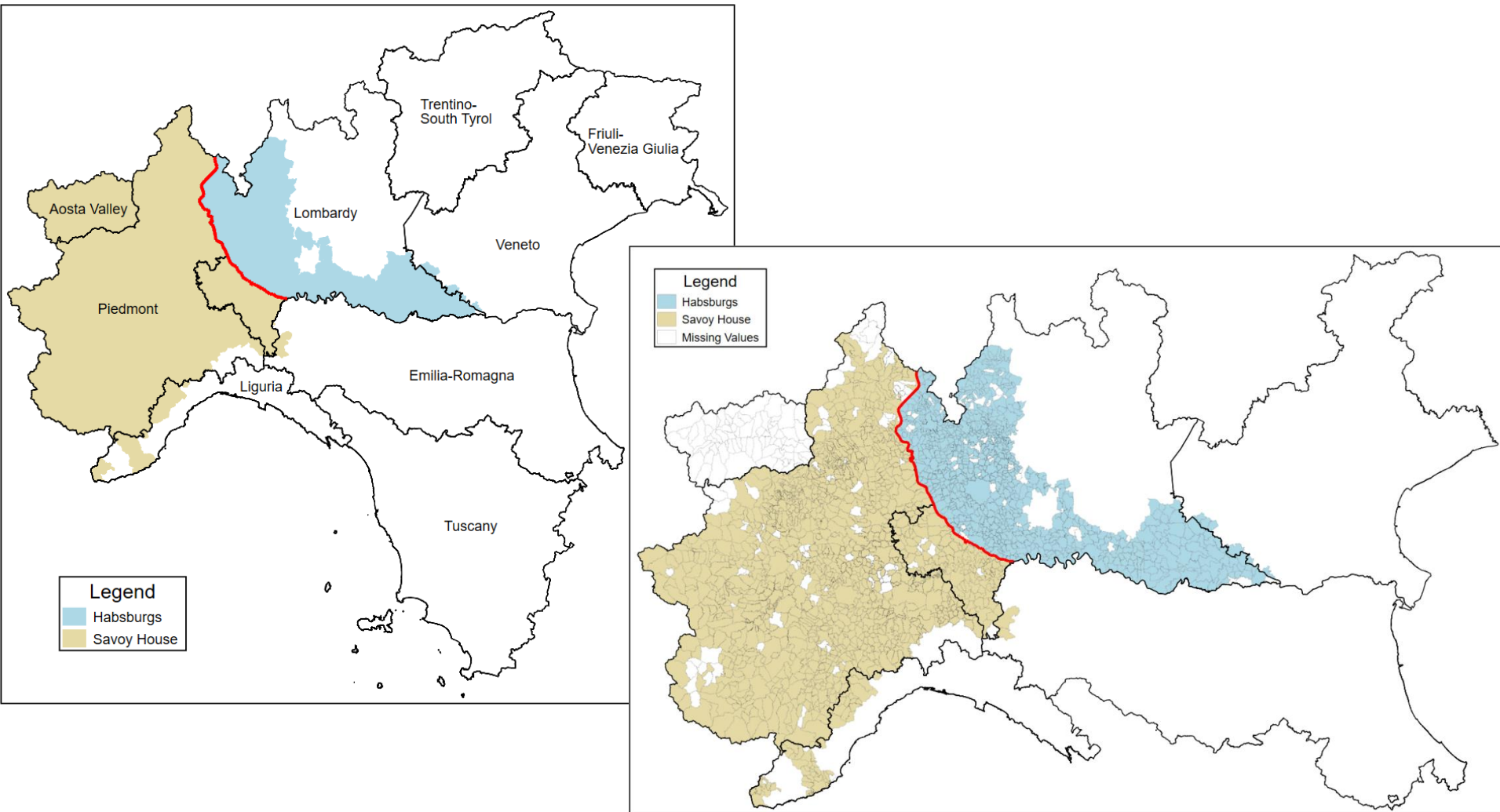
- Habsburg administrative reform of 30 December 1755 based on three elements:
 1. introduction of a homogeneous administrative model responding to the political need of eliminating the feudal and fiscal privileges of the aristocracy (Riley 2003);
 2. establishment of the *Convocato Generale degli Estimati*:
 - local institute of self-government based on the participation of all the land owners (*Estimati*) of a municipality;
 - power to elect the municipal council, approve the municipal budget, decide on the composition of public spending, manage public spending, decide on the level of taxation;
 3. introduction of the *Cancelliere Delegato del Censo*:
 - state official representing the central government in a district (\approx 10 municipalities);
 - responsible for checking the regularity of municipal council's elections and municipal budgets, and reporting abuses to the central government.
- Moreover, Enlightenment values of community welfare and administrative efficiency:
 - civil servants had to strengthen their love for the “*general good of the state*” (Emperor Joseph II, *Lettere Pastorali*, 1783).

Historical background – Savoy House administrative system

- Savoy House reformism aimed at centralizing the power in the hands of the King:
 - Edict of 1717 introduced the Intendant as the instrument used by the King to increase his control over local communities;
 - Edict of 1733 defined the administrative functions assigned to each municipality and the composition of the municipal bodies:
 - main goal was to create municipal bodies that could be easily controlled by the Intendant, who, in turn, was appointed directly by the King;
 - Art. 7 provided for the abolition of any type of municipal assembly “*which serves only to cause confusion and stir up factions*”;
 - Edict of 1775 further increased the King’s centralizing power over local administrations:
 - municipal council in charge of the administration of the municipality;
 - Intendant with extensive powers of control/supervision over the municipal council:
 - ❖ increase/decrease the no. of municipal councillors;
 - ❖ remove municipal councillors;
 - ❖ annul decisions made by the municipal council.

Empirical framework – Study region

- Northern Italian municipalities ruled by either the Habsburg Monarchy or the Savoy House starting from the signature of the Treaty of Aix-la-Chapelle in 1748:




Empirical framework – Data

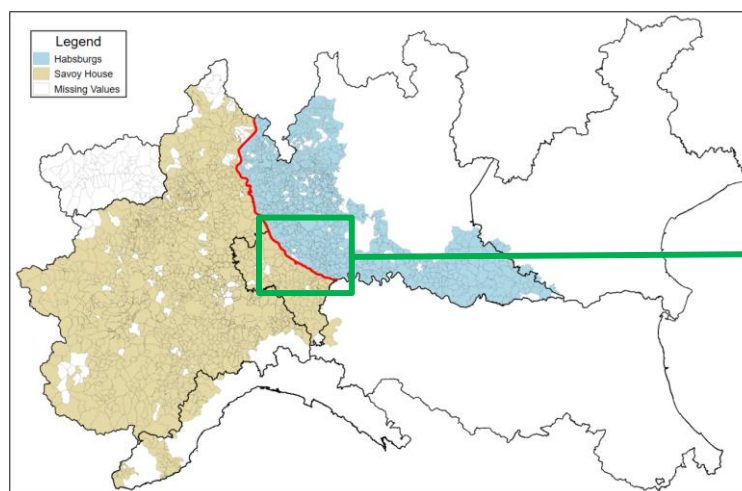
- Dependent variable capturing municipality-level efficiency in providing public goods and services to the local community in year 2013:
 - difference between the actual level of services provided and the standard level of services a municipality should provide to the local community:
 - standard level of service needs estimated based on geographical and socio-economic dimensions;
 - variable defined on a 1-10 scale:
 - a value greater than 5 denotes higher efficiency in providing public goods and services to the local community with respect to its needs, compared to similar municipalities.

Empirical framework – Data

- Control variables:
 - historical (pre-1748):
 - Roman city status in 100 BC-AD 300
 - commune (i.e. free city-state) status in 1000-1300
 - distance to the closest ancient university in 1088-1481
 - right to hold a market (i.e. a fair) granted by the state authority in 1196-1721
 - seat of a bishop
 - population of at least 5,000 inhabitants in 1300-1700
 - yearly number of sovereignty changes in 1000-1700
 - first-order geographical and institutional:
 - land area
 - altitude
 - terrain ruggedness
 - distance to the own current region capital city
 - provincial capital city status
 - demographic and socio-economic:
 - income per taxpayer in 2012
 - population density in 2011
 - share of tertiary-educated population in 2011
 - share of illiterate population in 2011
 - share of foreign population in 2011
 - unemployment rate in 2011
 - shares of primary, manufacturing, and services employment in 2011

Empirical framework – Identification strategy

- Spatial RDD exploiting the 1748 frontier between the Habsburg-ruled Duchy of Milan and the Savoy House-ruled territories:
 1. exogeneity of the 1748 frontier (Treaty of Aix-la-Chappelle):
 - established, for the very first time, at the Ticino River after a period of wars, military occupations, and political treaties (Succession Wars in 1701-1748) that saw the enlargement of the Savoy House at the expense of the Duchy of Milan;
 2. no differences in pre-1748 municipality-level characteristics across the frontier; 
 3. portion of the 1748 frontier does not coincide with current regional borders:



portion of 1748 frontier
lying entirely within the
Lombardy region

Empirical framework – Empirical model

- Regression equation estimated on a 40 km bandwidth sample around the 1748 frontier:

$$Y_{mbrs} = \alpha + \beta T_{mbrs} + g(\text{geographical location}_m) + \gamma_b + \delta_r + \sum_{k=1}^K \theta_k X_{mbrs}^k + \varepsilon_{mbrs}$$

- T_{mbrs} takes value 1 for Habsburg municipalities
- $g(\cdot)$ specified as an interacted linear polynomial in distance to the 1748 frontier
- γ_b is a vector of dummies for 1748 frontier segments
- δ_r is a vector of dummies for current regions
 - 40 km bandwidth sample encompasses three administrative regions
 - portion of the 1748 frontier coincides with current Piedmont-Lombardy regional border
- X_{mbrs}^k is a vector of control variables
- ε_{mbrs} is the error term
 - corrected for spatial dependence of unknown form a la Conley (1999)

Results – Baseline results

Dependent Variable	Efficiency in Public Goods Provision					
	(1)	(2)	(3)	(4)	(5)	(6)
Habsburgs	1.905**** (0.499)	1.815*** (0.553)	1.756**** (0.474)	2.293**** (0.574)	1.786*** (0.558)	2.501**** (0.539)
R ²	0.18	0.19	0.20	0.22	0.21	0.26
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Border Segment FE	No	Yes	Yes	Yes	Yes	Yes
Historical Controls	No	No	Yes	No	No	Yes
Geographical and Institutional Controls	No	No	No	Yes	No	Yes
Demographic and Economic Controls	No	No	No	No	Yes	Yes
Municipalities	863	863	863	863	863	863
Treated Municipalities	469	469	469	469	469	469
Control Municipalities	394	394	394	394	394	394

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Results – Validation

1. Confounding effects:

- administrative efficiency related to budget management
- portion of the frontier entirely within the Lombardy region
- pre-Succession Wars differences in institutional settings



2. Robustness exercises:

- alternative operationalizations of the standard errors
- alternative specifications of the RD polynomial
- alternative bandwidths around the 1748 frontier
- subsample of municipalities bordering the 1748 frontier
- non-parametric RDD with data-driven bandwidth selection



3. Placebo analyses:

- 1748 frontier shifted by 40 km towards east and west
- Lombardy vs. non-Lombardy Savoy House-ruled municipalities
- frontier of the Duchy of Milan in 1559 (Spanish rule) and 1700
- 1,000 randomly drawn placebo frontiers



4. Further evidence on public goods provision:

- discretionary expenses in the aftermath of Italian unification
- expenditure per capita, expenditure composition, nursery places in 2013



Underlying mechanism – “Bureaucracy enculturation”

- Habsburg municipalities provide more public goods to their citizens than Savoy House ones.
- Empirical evidence is consistent with the local administrative systems implemented by the Habsburgs and the Savoy House:
 - decentralized system – self-government based on elected local civil servants:
 - civil servants had stronger incentives to respond to local population’s needs;
 - centralized system – local civil servants nominated by a King-appointed Intendant:
 - civil servants had stronger incentives to respond to the priorities of higher-level authorities rather than the needs of the local population.
- Choices underlying past local institutional reforms have resulted in different administrative traditions and, thus, different administrative values (Faguet 2014):
 - how are administrative values replicated within an institution over such a long time horizon?


Underlying mechanism – “Bureaucracy enculturation”



- At any time t , a fraction g of the N bureaucrats working in an institution has high administrative efficiency (trait $T = 1$) while $1-g$ has low administrative efficiency (trait $T = 0$).
- At the end of each period, a fraction $\alpha > 0$ of bureaucrats retires and is replaced by newly hired ones selected from the general population, where $p(T = 1) = p(T = 0) = 1/2$.
- It follows that $\alpha N/2$ of the newcomers has $T = 1$.
- “Enculturation” – bureaucrats communicate values at the workplace through network effects:
 - bureaucrats with trait $T = 1$ spread it more effectively the more numerous they are;
 - “enculturation” takes time:
 - time it takes for the typical worker to absorb the values of the majority at the workplace.

Underlying mechanism – “Bureaucracy enculturation”

- Steady-state solutions – two possible cases:
 1. “weak enculturation”:
 - the typical time it takes to absorb administrative values is longer than the typical time it takes to retire a bureaucrat;
 - “institutional memory” is wiped out and administrative values are not transmitted;
 - bureaucrats become distributed similarly to the general population;
 2. “strong enculturation”:
 - the typical time it takes to absorb administrative values is shorter than the typical time it takes to retire a bureaucrat;
 - “institutional memory” is maintained and administrative values are transmitted;
 - an infinitesimal difference in the initial condition can determine whether:
 - ✓ bureaucrats become distributed similarly to the general population;
 - ✓ all bureaucrats become highly efficient;
 - ✓ all bureaucrats become lowly efficient.

Underlying mechanism – Ruling out alternative mechanisms

1. Higher efficiency in public goods provision may depend on civil servants' characteristics:
 - no differences with respect to age, seniority, turnover rate, education level, absenteeism, and expenditure in personnel formation. 

2. Historical administrative reforms might have shaped local populations' attitude towards local institutions and the management of the public good:
 - no differences with respect to:
 - civic capital – June 2011 referendum voter turnout [three questions related to (local) public goods and services provision, and one question on government legitimate impediment]; 
 - political orientation of the elected municipal government ruling in 2013. 

Concluding remarks

- Evidence of persistent differences in administrative efficiency in providing public goods and services to the local community in the absence of differences in administrative efficiency related to budget management.
- “Bureaucracy enculturation” mechanism explaining the transmission over time of administrative values within an institution through learning at the workplace:
 - no evidence of alternative transmission mechanisms;
 - even in the presence of “similar” civil servants and local populations, a relatively “small” exogenous shock to a local institution with a relatively high internal enculturation level can nudge the institution’s evolution towards a diverging direction, and the resulting difference can later be maintained indefinitely.
- Administrative traditions matter, and should be considered for any reforms to be effective:
 - such traditions can “block, delay or filter the reform proposals of political and administrative reformers” (Meyer-Sahling and Yesilkagit 2011, p. 311);
 - “differentiated” public policies and reforms should account for heterogeneity in (historical) administrative traditions.

Thanks!

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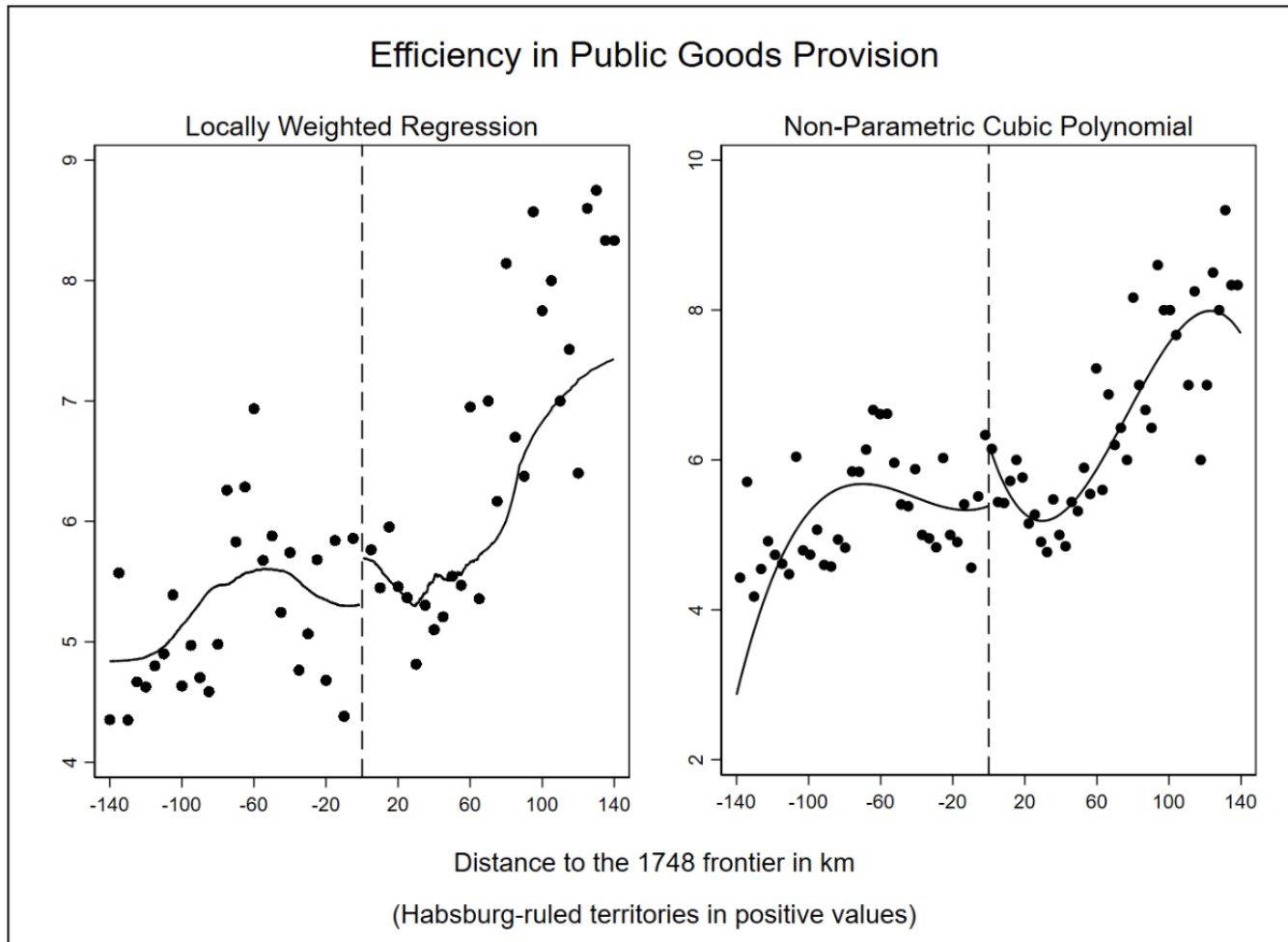
Spatial RDD on pre-1748 municipal level characteristics

Dependent Variable	Roman City	Commune	Distance to the Closest Ancient University	Market	Bishop	Large City	Sovereignty Instability
Habsburgs	0.005 (0.013) [0.012] {0.011}	-0.011 (0.019) [0.018] {0.017}	3.434 (3.075) [9.512] {5.386}	0.012 (0.023) [0.016] {0.019}	-0.003 (0.016) [0.015] {0.014}	-0.005 (0.017) [0.015] {0.012}	-0.038 (0.537) [1.293] {0.937}
R ²	0.00	0.00	0.07	0.00	0.00	0.00	0.04
Municipalities	863	863	863	863	863	863	863
Treated Municipalities	469	469	469	469	469	469	469
Control Municipalities	394	394	394	394	394	394	394

The bandwidth is set at 40 km around the frontier. Robust standard errors in parentheses. Standard errors corrected for spatial dependence: in brackets with the distance cut-off set at 40 km; in braces with distance cut-off set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.



RDD plot



Locally weighted regression: local averages of the dependent variables for municipalities in 5 km bins of their distance to the frontier. Non-parametric cubic polynomial: triangular kernel with IMSE-optimal evenly-spaced method using spacings estimators.

Efficiency in budget management

Estimation Sample	Municipalities Within 40 km to the Frontier	
Dependent Variable	Efficiency in Budget Management	
	(1)	(2)
Habsburgs	0.095 (0.323)	0.218 (0.231)
R ²	0.01	0.13
NUTS-2 Region FE	Yes	Yes
Border Segment FE	No	Yes
Historical Controls	No	Yes
Geographical and Institutional Controls	No	Yes
Demographic and Economic Controls	No	Yes
Municipalities	863	863
Treated Municipalities	469	469
Control Municipalities	394	394

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Habsburg- vs. Savoy House-rule current Lombardy municipalities

Estimation Sample	Current Lombardy Municipalities Within 40 km to the Frontier			
Dependent Variable	Efficiency in Public Goods Provision		Efficiency in Budget Management	
	(1)	(2)	(3)	(4)
Habsburgs	1.237**** (0.348)	1.054**** (0.212)	-0.511 (0.347)	0.266 (0.251)
R ²	0.21	0.32	0.03	0.16
NUTS-2 Region FE	No	No	No	No
Border Segment FE	No	Yes	No	Yes
Historical Controls	No	Yes	No	Yes
Geographical and Institutional Controls	No	Yes	No	Yes
Demographic and Economic Controls	No	Yes	No	Yes
Municipalities	322	322	322	322
Treated Municipalities	191	191	191	191
Control Municipalities	131	131	131	131

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Municipalities part of the Duchy of Milan in 1700

Estimation Sample	Municipalities Part of the Duchy of Milan in 1700 Within 40 km to the Frontier			
Dependent Variable	Efficiency in Public Goods Provision		Efficiency in Budget Management	
	(1)	(2)	(3)	(4)
Habsburgs	1.874**** (0.515)	2.368**** (0.526)	0.008 (0.326)	0.302 (0.265)
R ²	0.18	0.27	0.01	0.13
NUTS-2 Region FE	Yes	Yes	Yes	Yes
Border Segment FE	No	Yes	No	Yes
Historical Controls	No	Yes	No	Yes
Geographical and Institutional Controls	No	Yes	No	Yes
Demographic and Economic Controls	No	Yes	No	Yes
Municipalities	798	798	798	798
Treated Municipalities	469	469	469	469
Control Municipalities	329	329	329	329

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Alternative operationalizations of the standard errors

Dependent Variable	Efficiency in Public Goods Provision	
Standard Errors	Clustered	Conley (1999)
	(1)	(2)
Habsburgs	2.501 (0.386)**** [0.658]*** {0.131}***	2.501 (0.526)**** [0.459]**** {0.397}**** <0.355>**** <<0.324>>****
R ²	0.26	0.26
NUTS-2 Region FE	Yes	Yes
Border Segment FE	Yes	Yes
Historical Controls	Yes	Yes
Geographical and Institutional Controls	Yes	Yes
Demographic and Economic Controls	Yes	Yes
Municipalities	863	863
Treated Municipalities	469	469
Control Municipalities	394	394

The bandwidth is set at 40 km around the frontier. Standard errors clustered: at the municipality level in parentheses; at the province level in brackets; at the region level in braces. Standard errors corrected for spatial dependence: in parentheses with distance cut-off set at 40 km; in brackets with distance cut-off set at 120 km; in braces with distance cut-off set at 160 km; in angle brackets with distance cut-off set at 200 km; in guillemets with distance cut-off set at 240 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Alternative specifications of the RD polynomial

Dependent Variable	Efficiency in Public Goods Provision				
	Non-Interacted, Linear	Non-Interacted, Quadratic	Interacted, Quadratic	Non-Interacted, Cubic	Interacted, Cubic
Polynomial in Distance to the Frontier					
Habsburgs	2.818**** (0.409)	2.815**** (0.397)	2.083**** (0.495)	2.822**** (0.394)	1.997**** (0.467)
R ²	0.26	0.26	0.26	0.26	0.26
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes
Municipalities	863	863	863	863	863
Treated Municipalities	469	469	469	469	469
Control Municipalities	394	394	394	394	394
Polynomial in Latitude and Longitude	Linear		Quadratic		Cubic
Habsburgs	2.331**** (0.503)		2.115**** (0.475)		1.604**** (0.361)
R ²	0.26		0.29		0.30
NUTS-2 Region FE	Yes		Yes		Yes
Border Segment FE	Yes		Yes		Yes
Historical Controls	Yes		Yes		Yes
Geographical and Institutional Controls	Yes		Yes		Yes
Demographic and Economic Controls	Yes		Yes		Yes
Municipalities	863		863		863
Treated Municipalities	469		469		469
Control Municipalities	394		394		394

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Alternative bandwidths of 20 km, 80 km and 120 km on either side of the frontier

Dependent Variable	Efficiency in Public Goods Provision		
	20 km	80 km	120 km
Bandwidth	(1)	(2)	(3)
Habsburgs	0.969**** (0.213)	2.274**** (0.436)	2.167**** (0.451)
R ²	0.34	0.15	0.16
NUTS-2 Region FE	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes
Municipalities	455	1,485	1,827
Treated Municipalities	262	729	783
Control Municipalities	193	756	1,044

Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. The dummy variable for large city in the period 1300-1700 is omitted when considering the 20 km bandwidth sample due to collinearity. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Subsample of municipalities bordering the 1748 frontier

Dependent Variable	Efficiency in Public Goods Provision
Border Municipalities	All
Habsburgs	1.955 (0.740)** [0.601]***
R ²	0.79
NUTS-2 Region FE	Yes
Border Segment FE	Yes
Historical Controls	Yes
Geographical and Institutional Controls	Yes
Demographic and Economic Controls	Yes
Municipalities	74
Treated Municipalities	43
Control Municipalities	31
Border Municipalities	With an Adjacent Municipality on the Other Side of the Frontier
Habsburgs	1.816 (0.751)** [0.568]***
R ²	0.81
NUTS-2 Region FE	Yes
Border Segment FE	Yes
Historical Controls	Yes
Geographical and Institutional Controls	Yes
Demographic and Economic Controls	Yes
Municipalities	69
Treated Municipalities	38
Control Municipalities	31

Robust standard errors in parentheses. Standard errors corrected for spatial dependence in brackets: the distance cut-off is set at 80 km. The dummy variables for large city in the period 1300-1700 and provincial capital city are omitted due to collinearity. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Non-parametric RD estimation with data-driven bandwidth selection

Dependent Variable	Efficiency in Public Goods Provision					
Bandwidth Selection Method	One Common MSE-Optimal Selector					
RD Polynomial	Linear		Quadratic		Cubic	
Non-Parametric RD Estimator	Conventional	Bias-Corrected	Conventional	Bias-Corrected	Conventional	Bias-Corrected
Habsburgs	1.135 (0.412)***	0.926 (0.412)** [0.486]*	1.186 (0.530)**	1.148 (0.530)** [0.611]*	1.613 (0.620)***	1.611 (0.620)*** [0.692]**
Bandwidth	20.23	38.71	31.58	47.91	45.83	65.36
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipalities	457	839	685	1034	987	1302
Treated Municipalities	264	462	384	568	538	706
Control Municipalities	193	377	301	466	449	596
Bandwidth Selection Method	Two Different MSE-Optimal Selectors					
RD Polynomial	Linear		Quadratic		Cubic	
Non-Parametric RD Estimator	Conventional	Bias-Corrected	Conventional	Conventional	Bias-Corrected	Conventional
Habsburgs	1.189 (0.399)***	0.936 (0.399)** [0.474]**	1.410 (0.493)***	1.376 (0.493)*** [0.565]**	1.567 (0.581)***	1.699 (0.581)*** [0.643]**
Bandwidth	21.56	38.77	42.30	65.09	65.07	97.50
Left of the Frontier	21.56	38.77	42.30	65.09	65.07	97.50
Right of the Frontier	24.04	44.82	33.17	47.76	44.25	60.19
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipalities	511	902	818	1161	1111	1582
Treated Municipalities	301	525	402	567	517	688
Control Municipalities	210	377	416	594	594	894

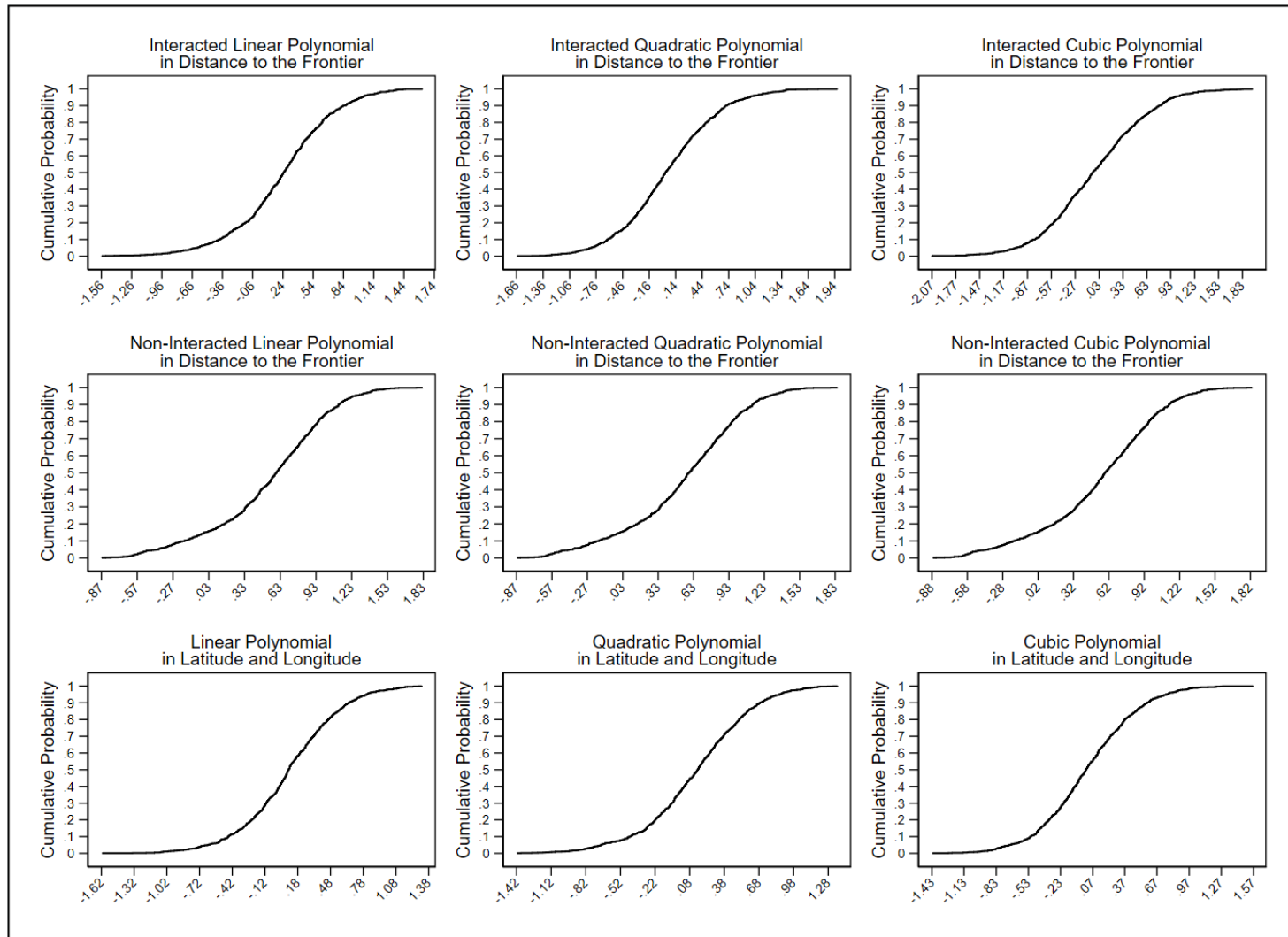
Conventional RD estimator: conventional standard errors in parentheses. Bias-corrected RD estimator: conventional standard errors in parentheses; robust standard errors in brackets. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Alternative frontiers

Dependent Variable	Efficiency in Public Goods Provision				
	1748 Frontier Shifted by 40 km		Lombardy vs. Non-Lombardy Savoy House Municipalities	Western Frontier of the Duchy of Milan	
Falsification Test	Eastward	Westward		1700	1559
	(1)	(2)	(3)	(4)	(5)
Habsburgs	0.275 (0.508)	-0.451 (0.299)	-0.921 (1.819)	-0.109 (0.211)	-0.224 (0.314)
R ²	0.17	0.25	0.35	0.23	0.16
NUTS-2 Region FE	No	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes
Municipalities	729	756	274	829	938
Treated Municipalities	260	394	127	388	492
Control Municipalities	469	362	147	441	446

The bandwidth is set at 40 km around the frontier, except in column (5) where it is set at approximately 21.07 km, i.e., the maximum distance of Savoy House-ruled Lombardy municipalities to the current Lombardy-Piedmont regional border. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Cumulative distribution of coefficients from 1,000 randomly drawn placebo frontiers



The plots report the cumulative distribution of coefficients obtained from a simulation of 1,000 random placebo frontiers. The y-axis indicates the point in the distribution. The x-axis indicates the value of the placebo coefficients.

Municipalities' expenses in 1884

Dependent Variable	Share Discretionary Expenses			Share Total Expenses	
	Total	Public Education	Infrastructures	Public Education	Infrastructures
	(1)	(2)	(3)	(4)	(5)
Habsburgs	0.030** (0.014)	0.040**** (0.008)	0.014 (0.011)	0.003 (0.008)	-0.014 (0.023)
R ²	0.25	0.36	0.15	0.09	0.34
<i>Compartimento</i> in 1881 FE	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes
Population Density in 1881	Yes	Yes	Yes	Yes	Yes
Revenues Per Capita in 1884	Yes	Yes	Yes	Yes	Yes
Municipalities	803	803	803	803	803
Treated Municipalities	429	429	429	429	429
Control Municipalities	374	374	374	374	374

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. The set of geographical and institutional controls includes the provincial capital city in 1881 and the distance to the *compartimento*'s main city in 1881. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Municipalities' expenses and nursery in 2013

Dependent Variable	Expenditure Per Capita	Share Expenditure			Authorized Nursery Places Per 100 Children Aged 0–2 Years
		Social Activities	Public Education	Transportation and Mobility	
	(1)	(2)	(3)	(4)	(5)
Habsburgs	-9.152 (18.164)	0.023*** (0.008)	0.036**** (0.007)	-0.003 (0.004)	5.981** (2.952)
R ²	0.29	0.43	0.25	0.33	0.09
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes
Municipalities	863	863	863	863	860
Treated Municipalities	469	469	469	469	469
Control Municipalities	394	394	394	394	391

The bandwidth is set at 40 km around the frontier. Standard errors (in parentheses) are corrected for spatial dependence: the distance cut-off is set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

A model of within-institution “bureaucracy enculturation”

- At any time t , there are N bureaucrats operating in an institution:
 - bureaucrats are endowed with a trait T that we take to be binary:
 - $T = 1$, high administrative efficiency;
 - $T = 0$, low administrative efficiency;
 - a fraction g of bureaucrats has $T = 1$.
- At the end of each period, a fraction $\alpha > 0$ of bureaucrats retires and is replaced by newly hired ones selected from the general population:
 - we assume that in the general population $p(T = 1) = p(T = 0) = 1/2$.
- It follows that:
 - αN bureaucrats retire during period Δt , of which $\alpha g N$ have $T = 1$;
 - among the newcomers, $\alpha N/2$ have $T = 1$;
 - hence:
$$g_{t+1} = (1/N)[g_t N - \alpha g_t N + \alpha(N/2)] = g_t - \alpha[g_t - (1/2)]$$
 - and the time-continuum is:

$$\dot{g} = -\alpha \left(g - \frac{1}{2} \right)$$

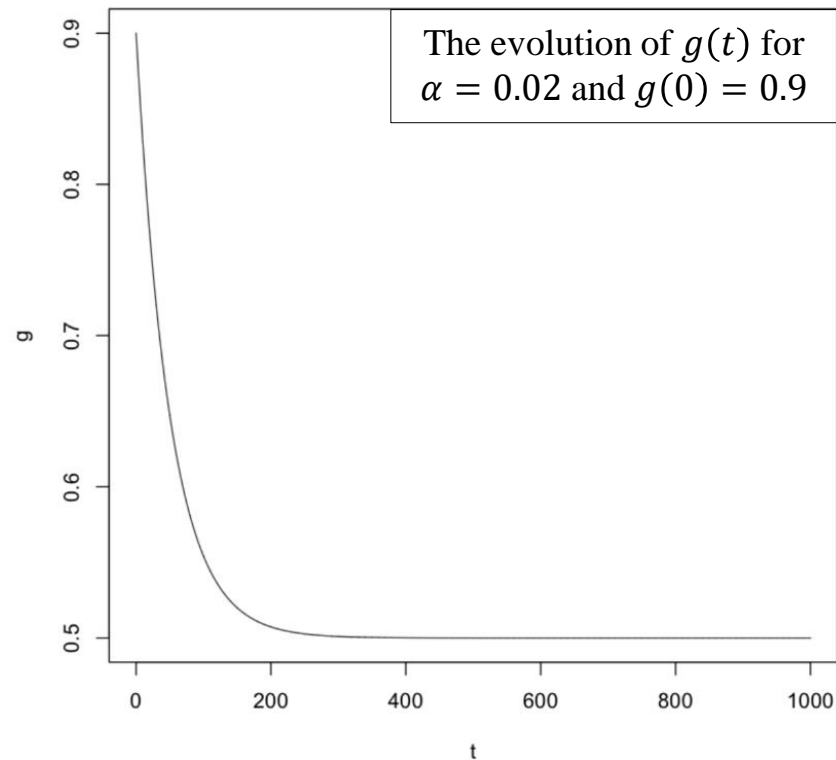
where α denotes the fraction of bureaucrats replaced per unit of time.

A model of within-institution “bureaucracy enculturation”

- Equation $\dot{g} = -\alpha(g - 1/2)$ can be solved exactly as:

$$g(t) = \frac{1}{2} + \left(g(0) - \frac{1}{2}\right) e^{-\alpha t}$$

- but we do not describe persistence yet:
 - for $t \rightarrow \infty$, institution ends up with same distribution of T as the underlying population;
 - “institutional memory” is wiped out:



A model of within-institution “bureaucracy enculturation”

- Let’s introduce enculturation:
 - bureaucrats communicate values;
 - we can model enculturation at the workplace through network effects:
 - bureaucrats with trait $T = 1$ spread it more effectively the more numerous they are:

$$\dot{g} = -\alpha \left(g - \frac{1}{2} \right) + \beta \left(g - \frac{1}{2} \right)^k$$

- where:
 - ❖ $k > 1$
 - ❖ β is the reciprocal of the “enculturation” time scale capturing how long it takes for the typical worker to absorb the values of the majority within the workplace;
- the enculturation process must be symmetric – i.e. the same equation must hold for $T = 1$ and $T = 0$:
 - we must have an odd k , and the simplest choice is $k = 3$.

A model of within-institution “bureaucracy enculturation”

- By setting $u = (g - 1/2)$, we obtain:

$$\dot{u} = -\alpha u + \beta u^3$$

- Let's consider the steady state – for $\dot{u} = 0$, we obtain:

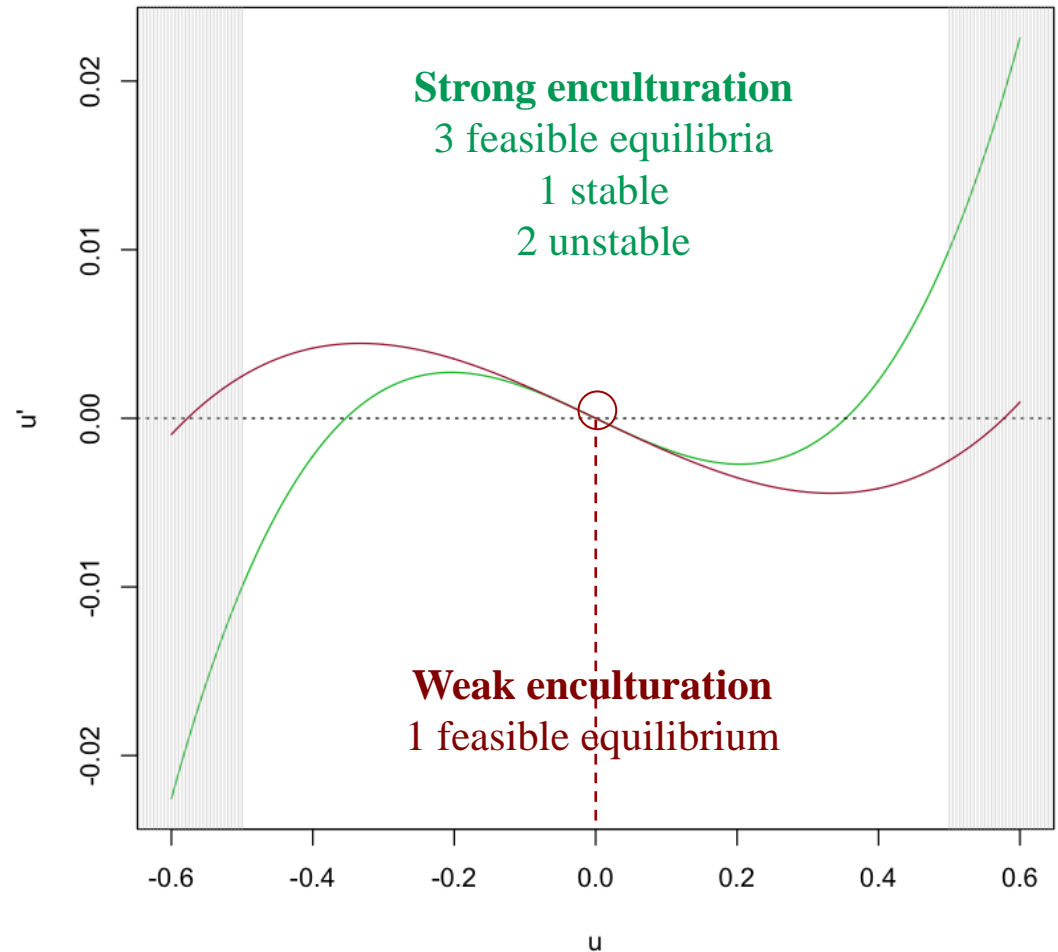
$$u(-\alpha + \beta u^2) = 0$$

- such that there are three possible solutions:
 - $u = 0$
 - $u_{1,2} = \pm\sqrt{\alpha/\beta} \longrightarrow$ real solutions because $\alpha > 0$ and $\beta > 0$
- We also impose $u \in [-1/2, 1/2]$, which is equivalent to requiring $0 \leq g \leq 1$:
 - it follows that $u_{1,2} = \pm\sqrt{\alpha/\beta}$ are not always attainable solutions;
 - two possible cases:
 - “weak enculturation” for $\sqrt{\alpha/\beta} > 1/2$;
 - “strong enculturation” for $\sqrt{\alpha/\beta} \leq 1/2$;

A model of within-institution “bureaucracy enculturation”

1. “weak enculturation” $\rightarrow \alpha/\beta > 1/4$ such that $1/\beta > 1/(4\alpha)$, i.e. the typical time it takes to absorb administrative values is longer than 1/4 of the typical time it takes to retire a bureaucrat:

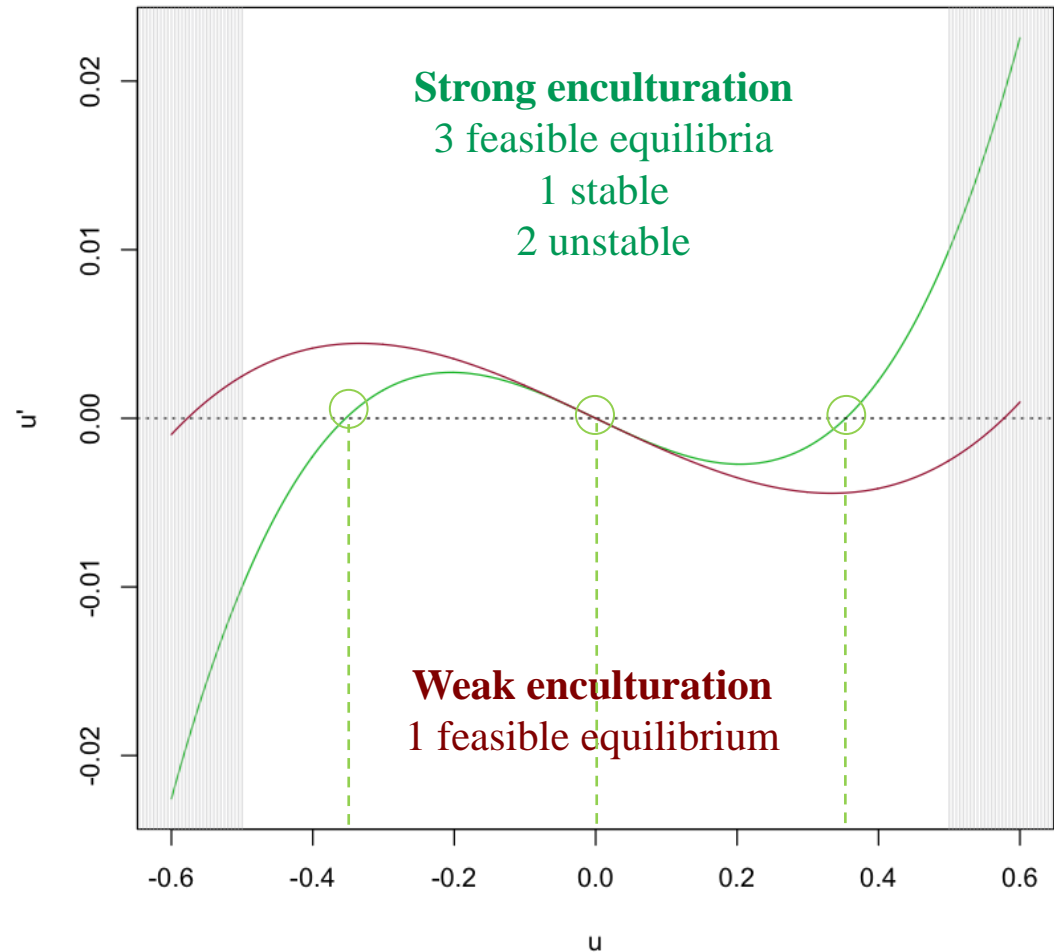
- $T = 1$ ($T = 0$) bureaucrats retire too fast before being able to “teach” the new ones how to be $T = 1$ ($T = 0$);
- it follows that $u = 0$ (i.e. $g = 1/2$) is the only feasible (and stable) equilibrium;
- thus, “weak enculturation” does not bring about persistence – bureaucrats become distributed similarly to general population;



A model of within-institution “bureaucracy enculturation”

2. “strong enculturation” → three feasible solutions:

- $u = 0$ is still the only stable solution – bureaucrats become distributed similarly to general population;
- two symmetric points ($u_{1,2}$) within the interval $[-1/2, 1/2]$ which are unstable solutions:
 - near these two points, either all bureaucrats become highly efficient ($T = 1$) or they all become lowly efficient ($T = 0$);
- an infinitesimal difference in the initial condition can determine whether we fall into either of the three equilibria:
 - $u = -1/2 \rightarrow g = 0$
 - $u = 0 \rightarrow g = 1/2$
 - $u = 1/2 \rightarrow g = 1$



Civil servants' characteristics

Dependent Variable	Share Employees < 35 Years Old	Share Personnel with Seniority ≤ 20 Years	Personnel Turnover Index	Share Personnel with Tertiary Education	Share Unpaid Absences	Share Expenditure in Personnel Formation
	(1)	(2)	(3)	(4)	(5)	(6)
Habsburgs	0.012 (0.019) [0.008]	-0.005 (0.042) [0.024]	0.040 (0.035) [0.034]	-0.033 (0.028) [0.023]	0.001 (0.011) [0.007]	0.000 (0.000) [0.000]
R ²	0.05	0.07	0.03	0.07	0.04	0.14
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Municipalities	844	844	844	844	846	502
Treated Municipalities	463	463	463	463	463	330
Control Municipalities	381	381	381	381	383	172

The bandwidth is set at 40 km around the frontier. Robust standard errors in parentheses. Standard errors corrected for spatial dependence in brackets: the distance cut-off set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

People's civic capital – June 2011 referendum voter turnout

Dependent Variable	Referendum Voter Turnout				
	Question #1	Question #2	Question #3	Question #4	Average
	(1)	(2)	(3)	(4)	(5)
Habsburgs	0.010 (0.008) [0.009]	0.010 (0.008) [0.009]	0.010 (0.008) [0.009]	0.009 (0.008) [0.009]	0.010 (0.008) [0.009]
R ²	0.21	0.21	0.21	0.21	0.21
NUTS-2 Region FE	Yes	Yes	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes	Yes	Yes
Municipalities	863	863	863	863	863
Treated Municipalities	469	469	469	469	469
Control Municipalities	394	394	394	394	394

The bandwidth is set at 40 km around the frontier. Robust standard errors in parentheses. Standard errors corrected for spatial dependence in brackets: the distance cut-off set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. The control variable for income per taxpayer refers to the year 2010. The dependent variables for voter turnout refer to the referendum held in June 2011: question #1 concerns the entrusting and management of local public services with economic relevance; question #2 concerns the determination of the integrated water service tariff based on an adequate return on invested capital; question #3 concerns the production of nuclear electric power on the national territory; question #4 concerns the legitimate impediment of the Prime Minister and the Ministers to appear in criminal hearings. All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Political orientation of elected municipal government ruling in 2013

Dependent Variable	Elected Municipal Government		
	<i>Lista Civica</i>	Left-Wing Party	Right-Wing Party
	(1)	(2)	(3)
Habsburgs	-0.035 (0.052) [0.022]	0.010 (0.023) [0.014]	0.025 (0.052) [0.026]
R ²	0.37	0.43	0.22
NUTS-2 Region FE	Yes	Yes	Yes
Border Segment FE	Yes	Yes	Yes
Historical Controls	Yes	Yes	Yes
Geographical and Institutional Controls	Yes	Yes	Yes
Demographic and Economic Controls	Yes	Yes	Yes
Mayor's Characteristics	Yes	Yes	Yes
Municipalities	793	793	793
Treated Municipalities	431	431	431
Control Municipalities	362	362	362

The bandwidth is set at 40 km around the frontier. Robust standard errors in parentheses. Standard errors corrected for spatial dependence in brackets: the distance cut-off set at 80 km. The one-dimensional RD polynomial is specified as an interacted linear polynomial in distance to the frontier. The dependent variables capture the political orientation of the municipal government ruling in the period from January 1, 2013 to December 31, 2013. The set of control variables for mayor's characteristics includes: number of years in power; age; sex (male or female); and education level (categorical variable for no education title, primary education, lower secondary education, upper secondary education, and tertiary education). All specifications include a constant term. * $p < .1$, ** $p < .05$, *** $p < .01$, **** $p < .001$.