The Effects of Social Capital on Government Performance and Turnover
Theory and Evidence from Italian Municipalities
WORK IN PROGRESS

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Background

▶ Many countries display high variation in performance of sub-national governments, despite common rules and longstanding shared institutions.

▶ **Italy** typical example:

　▶ local public goods provision differs across municipalities (e.g. ◀ Rubbish)

　▶ deep historical/cultural and genetic diversity (e.g. ▶ Dialects)

▶ In a seminal work **Putnam (1993)** studies the performance of the twenty regional Italian governments since 1970, and finds that regional governments perform best where there are strong traditions of civic engagement ($\sim$ social capital [SK]).

However, until 2013, no official measure of Italian sub-national government performance (*OpenCivitas Performance Indicators*) . . .

. . . plus old issue of social capital measurability.

Aim of the paper

- We focus on the effect of social capital on the role of elections in (i) providing incentives for incumbents and (ii) to select good politicians for office.

- Our contributions are:

  → to present a theoretical analysis where we focus on two features of social capital (preference and information).

  → to test the theoretical predictions on a new dataset on performance indicators and elections for Italian municipalities

  → to provide a new measure of social capital based on a survey which correct for possible endogeneity of standard social capital measures.

  → to investigate the alternative channels from SC to political behaviour

Literature

- ▶ Theoretical literature on social capital and elections (Nannicini et (2013) and Ponzetto and Troiano (2018)).

- ▶ Empirical literature on the correlation between social capital and politicians behavior when in power (noticeably Nannicini et al (2013), Ponzetto and Troiano (2018), Padro I Miguel et al (2015)).

- ▶ Literature in information and election outcomes (Besley and Burgess (2002), Ferraz and Finan (2008)).

- ▶ Large literature on measuring social capital (Guiso, Sapienza,Zingales (2004) , Schuller,(2001), Cote and Healy (2001), Putnam (1993))

Outline

- ▶ Part I: A political agency model with social capital
- ▶ Part II: The construction of new social capital measures based on survey/experimental data.
- ▶ Part III: Municipality' Performance, Social Capital and Voting

1.
A political agency model

Theory
Basic Idea

▶ Our theoretical approach models two mechanisms by which social capital can affect government behaviour, civic preferences and political knowledge.

▶ We show how these two mechanisms determine government performance when in office, and government turnover

Theory
Set up

▶ There are an infinite number of periods $t = 1, 2....$

▶ In each period, an incumbent politician provides a public good via the production function

$$g_{t+1} = e_t + T_t \qquad (1)$$

▶ There is an election at the end of every period, and incumbents have a two-term limit.

▶ There is a continuum of infinitely lived voters with payoffs

$$\tilde{\theta} u(g_t) - T_t \qquad (2)$$

▶ $\tilde{\theta}$ measures the relative weight put on public goods (social capital 1).

Theory

Setup

▶ All voters observe taxes T_t at t, each voter observes e_t *before* the election at time t with probability $0 < \sigma < 1$. (social capital 2)

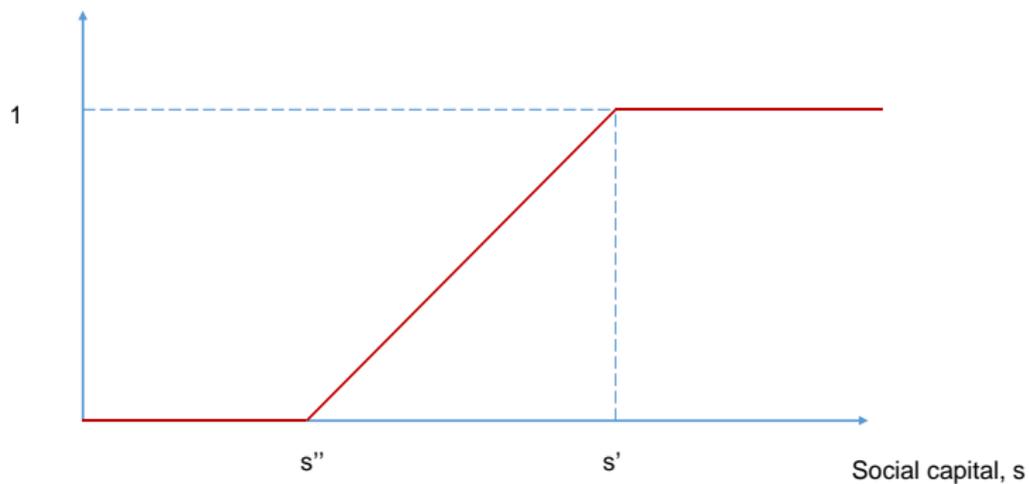▶ Voters vote for the incumbent i iff

$$V^i + v_j + \omega \geq V \tag{3}$$

▶ Two types of politicians, bad and good.

▶ The good type maximises voters payoffs.

▶ The bad type likes holding office but dislikes effort.

Theory
Equilibrium

Theoretical Predictions

▶ Prediction 1: The effect of social capital on first period performance (effort) is increasing in both measures of SC. The effect of SC in the second period performance is increasing in both measures of SC under some conditions. `◄ results`

▶ Prediction 2 The share of the vote for the incumbent is increasing in her performance and the effect of performance on vote share is increasing in both measures of SC, the share of informed voters and preferences for the public good. `◄ results`

▶ Prediction 3: The probability - not conditional on performance - that the incumbent wins a second term is generally decreasing in θ and also in σ. `◄ results`

2.
Measuring Social Capital :
Combining Survey/experimental Data with
Administrative date

What is Social Capital?

The literature has commonly identified social capital (or civic capital, civic attributes) with norms and networks that enhance *trust*, *cooperation* and facilitate information sharing that help a group overcome the free rider problem for the production of *public goods*.

Measuring Social Capital

Traditional measures for social capital include:

- ▶ Surveys responses on trust, blood donations (Guiso, Sapienza, Zingales (2004)) and Nannicini et al (2013);

- ▶ Electoral turnout, participation in voluntary organisations (Schuller,2001), Cote and Healy (2001);

- ▶ A composite index including newspaper readership, referendum turnout, Putnam (1993);

These measures are *usually* all highly correlated.

	2011 Ref.	Blood	News	1974 Ref.	Tv Lic.
2011 Referendum turnout	1				
Blood Donations	0.51	1			
Newspapers copies	0.66	0.54	1		
1974 Referendum turnout	0.78	0.74	0.75	1	
Tv licence	0.55	0.57	0.33	0.59	1

Municipality-level Observables for 2011
Traditional Measures for Social Capital

- **Television licence** (as a share of HH)

    - All TV owners are required by Italian law to have a licence.

    - The annual cost of the licence fee is currently €112 .

    - Very easy to avoid, due to low probability of detection

- **Nationwide referendum turnout** (12-13 June 2011) on 3 items:

    - The repeal of recent laws on the privatization of water services,

    - A return to the nuclear energy (phased out after the 1987),

    - Criminal procedure, specifically a provision exempting the Prime Minister and the Ministers from appearing in court.

Standard Solution: to build municipal level composite indicators

Municipality-level Data: Issues

Our aim is to test the theoretical predictions: the effect of social capital on (i) incumbent performance and turnover, and on (ii) voters behavior.

We have two issues:

1. Aggregate analysis does not allow to disentangle (endogenous) quality of institutions from (pre-determined) cultural norms (Ashoworth, De Mesquita (2014,16), Fisman, Miguel (2007), Fernandez (2011)).
   → individual-level analysis on survey data

2. Reverse Causality wrt Social Capital and Performance/Popularity
   → municipality-level analysis with exogenous social capital measures

Individual Level Analysis:
Culture, Family Origin and Social Behaviour

Large-scale **online experiment** involving 1,500 individuals who are born/reside in Rome, Milan, and Turin.

Intuition:
Italy is a relatively "young" country (158 years). A large share (71-75%) of the population residing in the main cities has **family origins elsewhere in Italy** ◂ internal migration ⟹ heterogeneous predisposition to social, political and cultural behaviour, while holding institutional exposition constant.

The online experiment:

▶ tracks family origins and measure liaison to place of origin

▶ collects info on political preferences and behaviour

▶ asks questions on social capital (similar to municipal-level data) participants play games (**Public Good Game**
- proxy for cooperation (to public good), willingness to pay taxes -

Two main results to take

▶ Common indicators of social capital are correlated with preferences for public goods and information (which motivates the way we model SC in the theory) ◂ one

▶ Individual Public goods contributions are positively correlated with:

  ▶ average public good contributions of those respondents (and whose parents/grandparents) are born in the same region. ◂ two

  ▶ Social Capital of respondent, of parents and grand parents. ◂ three

Table: Correlations between Social Capital, Political Knowledge and Civic Attributes

Correlations	PG Contributions	Interest in Politics	Press Information
Agree: most people are honest	0.108***	0.150***	0.089***
Agree: most people try to help	0.082***	0.112***	0.065**
Agree: most people can be trusted	0.074***	0.113***	0.091***
Trust in the State	-0.005	0.160***	0.046*
Trust Family	0.021	0.016	0.102***
Trust Friends	0.067***	0.01	0.081***
Trust Neighbours	0.089***	0.109***	0.098***
Trust Strangers	0.065**	0.185***	0.03
Trust People of his/her own town	0.069***	0.119***	0.087***
Trust Italians	0.049*	0.151***	0.089***
Trust People from Milan	0.049*	0.182***	0.087***
Trust People from Turin	-0.001	0.154***	0.089***
Trust People from Rome	0.006	0.079***	0.042*
Wallet Lost	-0.056**	-0.004	-0.044*
Voluntering	0.084***	0.087***	0.042*

Notes: * = $p < 0.1$, ** = $p < 0.05$, *** = $p < 0.01$. Data are collected from a survey conducted in April 2019 among 1549 Italian respondents living in Rome, Milan, Turin. Detailed information on the survey are in [?]. "PG contributions" are the individual contributions toward a public good, the values are between 0 and 20 (Euros), "Interest in Politics" is the self reported level of interst in politics and current affairs, [0 corresponds to no interest in politics and 10 indicates high interest], "Press Information" is a DUMMY VAIRBLE?? THAT indicates that the respondent's main information channel is newspaper readership.

Dependent Variable: Contribution to Public Good/1

	(1)	(2)	(3)	(4)
Turin	-0.624***	-0.685***	-0.16	-0.241
residence dummy	(0.16)	(0.157)	(0.936)	(0.768)
Rome	-0.538***	-0.646***	-0.113	-0.448
residence dummy	(0.0964)	(0.166)	(0.52)	(0.497)
Abruzzo			-1.515**	-0.809
			(0.582)	(0.545)
Campania			-1.308**	-1.756***
			(0.508)	(0.404)
Emilia Romagna			-0.526*	-0.662**
			(0.287)	(0.302)
Friuli			5.866***	5.847***
			(0.0201)	(0.728)
Lazio			-0.544	-0.548
			(0.898)	(0.807)
Liguria			1.478***	1.628***
			(0.258)	(0.269)
Piemonte			-0.495	-0.225
			(0.49)	(0.455)
Puglia			-0.36	-0.345
			(0.343)	(0.299)
Sicilia			-1.061**	-1.171***
			(0.381)	(0.361)
Toscana			0.565	1.082***
			(0.357)	(0.325)
Observations	1,548	1,498	1,548	1,498
R-squared	0.003	0.087	0.012	0.099
Controls	No	Yes	No	Yes

Dependent Variable: Contribution to Public Good/2

	(1)	(2)	(3)	(4)	(5)
Turin	-0.685***	-0.0847	0.368	0.133	0.0507
place of residence dummy	(0.157)	(0.179)	(0.309)	(0.324)	(0.227)
Rome	-0.646***	-0.122	0.376	0.16	0.0353
place of residence dummy	(0.166)	(0.146)	(0.264)	(0.219)	(0.159)
Birth Place Public Good Contribution		1.056***	0.696***	0.806***	0.925***
		(0.119)	(0.172)	(0.125)	(0.12)
Mother Birth Place Public Good Contribution			0.644**		
			(0.236)		
Father Birth Place Public Good Contribution			0.530***		
			(0.171)		
Maternal grandmother Birth Place Public Good Contribution				0.646**	
				(0.256)	
Maternal grandfather Birth Place Public Good Contribution				0.323	
				(0.372)	
Paternal grandmother Birth Place Public Good Contribution					0.699***
					(0.22)
Paternal grandfather Birth Place Public Good Contribution					-0.07
					(0.464)
Observations	1,498	1,498	1,498	1,498	1,498
R-squared	0.087	0.097	0.107	0.107	0.103
Controls	Yes	Yes	Yes	Yes	Yes

◀ back

Dependent Variable: Contribution to Public Good/3

	(1)	(2)	(3)	(4)
Turin	-0.0234	-0.583	-0.445*	-0.244
	(0.194)	(0.352)	(0.239)	(0.338)
Rome	-0.28	-0.522**	-0.639***	-0.121
	(0.19)	(0.223)	(0.212)	(0.174)
Birth Place Public Good Contribution	1.033***	0.414	0.721***	0.837***
	(0.164)	(0.245)	(0.173)	(0.204)
Birth Place Social Capital	0.242***	-0.481	-0.0145	-0.548**
	(0.0791)	(0.304)	(0.229)	(0.237)
Father Social Capital		-0.159		
		(0.307)		
Mother Social Capital		0.591*		
		(0.31)		
Maternal Grandmother Social Capital			0.552***	
			(0.154)	
Maternal Grandfather Social Capital			-0.195	
			(0.183)	
Paternal Grandmother Social Capital				0.443
				(0.405)
Paternal Grandfather Social Capital				-0.0721
				(0.532)
Observations	1,419	928	939	915
R-squared	0.097	0.152	0.123	0.118
Controls	Yes	Yes	Yes	Yes

Social Capital of Municipalities

We propose three alternatives:

1. **Standard** **SK**: based on principal component between 2011 referendum turnout and TV licence payments, at municipal level.

   NEW Exogenous weighted SK indicators accounting for composition of population, based on provincial level immigration flows from 2000.

   - ▶ Share of population born locally (same municipality or province)
   - ▶ Share of population born in other regions

2. **Weighted SK1**: using aggregated indicators (2011 referendum turnout and TV licence payments)

3. **Survey Weighted SK2**: using individual level data from our survey and aggregating data by place of birth of mother/grand mother.

Social Capital of Italian Provinces

Standard Measures

Legend:
- (.932, 1.92]
- (.531, .932]
- (.158, .531]
- (-.323, .158]
- [-3.23, -.323]
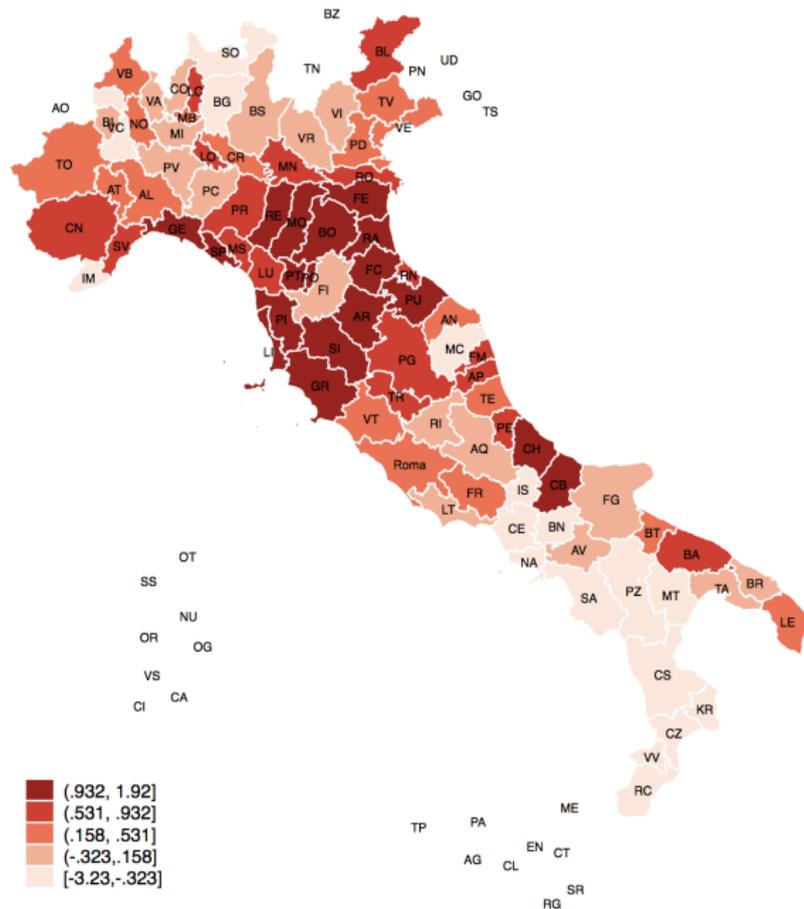
Social Capital of Italian Provinces
Administrative Data Adjusted for Population Composition

Legend:
- (.929,1.585]
- (.424,.929]
- (.208,.424]
- (-.281,.208]
- [-2.904,-.281]
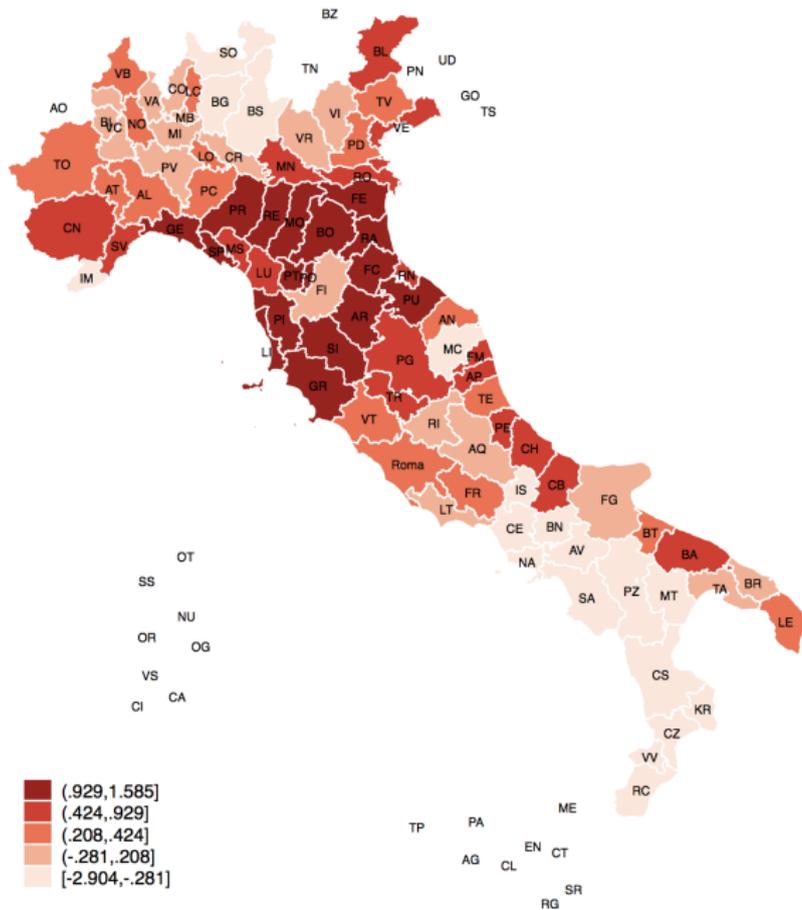
Social Capital of Italian Provinces
Administrative & Survey Data, Popolation Composition

Legend:
- ■ (.737,1.537]
- ■ (.374,.737]
- ■ (.096,.374]
- ■ (-.212,.096]
- ■ [-2.887,-.212]
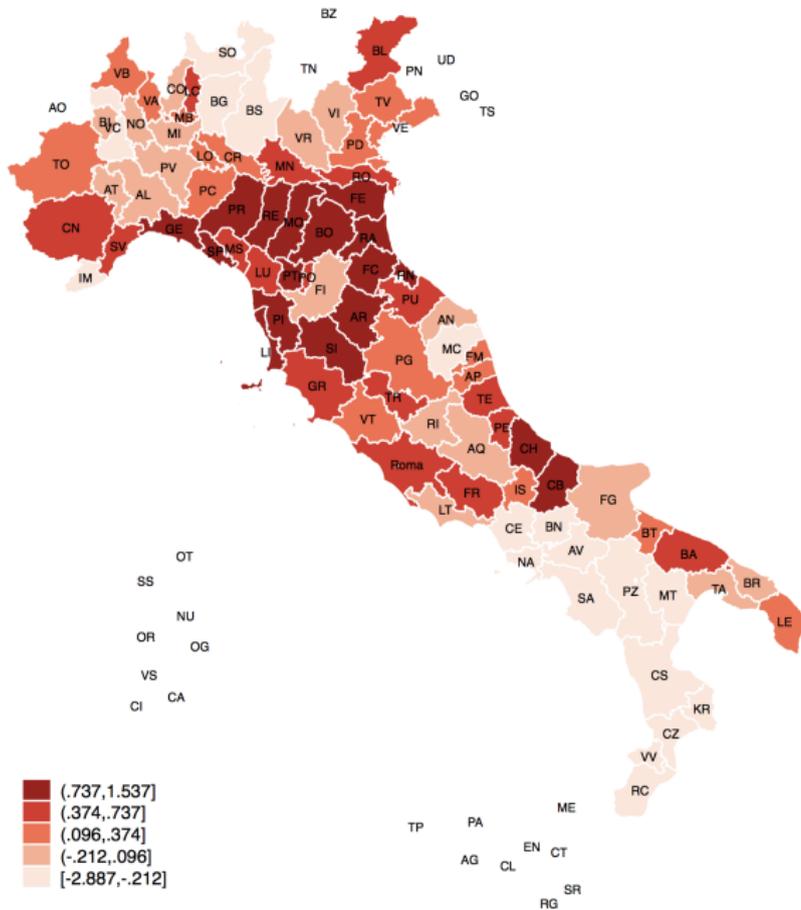
3.
Testing the predictions

Theoretical Predictions

▶ **Prediction 1**: The effect of social capital on performance is increasing in both measure of SC. The effect of SC in the second period performance is increasing in theta but it is either independent or decreasing in sigma. (◂ results)

▶ **Prediction 2**: The probability that the incumbent wins a second term election is always decreasing in theta and also in sigma but only if for some values. (◂ results)

▶ **Prediction 3** The share of the vote for the incumbent is increasing in her performance and the effect of performance on voter share is increasing in both the share of informed voters and preferences for the public good (social capital). (◂ results)

Italian Municipalities: Key facts

- 8,100 municipalities (**comuni**), 6,700 in "regular" regions;

- Mayor (**sindaco**) elected on 5-year term (2T limits);

- **Revenue** of comuni come from two main sources:
  - transfers from upper levels of government;
  - own revenues: **property tax (ICI/IMU)**, some minor taxes (waste disposal, income tax and electricity surcharges) and fees

- Performance Score (2010 to 2016) from **OpenCivitas project**;

- Electoral data from 2008/2016, plus incumbent characteristics;

- Controls Variables : income, population, geography, fiscal variables and incumbent characteristics.

The OpenCivitas Project

- ▶ Since 2012 the Italian government has been conducting a comprehensive analysis of expenditures and output of municipalities (N=6700)

    - ▶ Evaluation of Standard expenditure needs

    - ▶ Evaluation of efficiency in the provision of local public services (performance indicators). ◀ OpenCivitas

    - ▶ **Performance indicators** and standard **social capital** measures seem to be highly correlated. ◀ trends

Prediction 1. Dep Var. Municipal Performance
Standard Social Capital

.	OLS	OLS	OLS	OLS	IV
SC	0.2127***	0.1959***	0.1775***	0.1333***	0.5101***
	[0.010]	[0.016]	[0.018]	[0.021]	[0.078]
SC x Incumbent can run		0.0257	0.0305	0.0624**	0.1408
		[0.019]	[0.022]	[0.026]	[0.096]
Incumbent can run		0.0246	0.8872***	0.8828***	0.6291
		[0.018]	[0.294]	[0.394]	[0.442]
Population			0.0000	0.0006	0.0016*
			[0.001]	[0.001]	[0.001]
share_ch			10.0824***	8.0813***	8.9280***
			[1.063]	[1.118]	[1.247]
share_el			2.0067***	2.1295***	2.2301***
			[0.514]	[0.555]	[0.639]
Income			-0.0809***	-0.0676***	-0.1095***
			[0.006]	[0.009]	[0.012]
Grants			-0.0012***	-0.0012***	-0.0012***
			[0.000]	[0.000]	[0.000]
Majority Coalition Left				0.0823	-0.0216
				[0.052]	[0.056]
Majority Coalition Right				0.0065	0.0604
				[0.050]	[0.052]
No term limit				-0.0961***	0.0129
				[0.037]	[0.049]
First past the post				-0.2131***	-0.0896
				[0.069]	[0.069]
Incumbent Female				0.1013***	0.0871***
				[0.026]	[0.028]
Incumbent Age				0.0137*	0.0100
				[0.008]	[0.008]
Incumbent Degree				0.0926***	0.0567
				[0.034]	[0.037]
Incumbent Work Experience				-0.0157	-0.0200
				[0.026]	[0.028]
Observations	41,592	41,592	40,372	37,878	32,857
R-squared	0.192	0.192	0.219	0.221	0.212
Controls	NO	NO	YES	YES	YES

Prediction 1. Dep Var. Municipal Output
Standard Social Capital

.	OLS***	OLS***	OLS***	OLS***	IV***
SC	0.2524***	0.2524***	0.2655***	0.2985***	1.5833***
	[0.023]	[0.023]	[0.025]	[0.027]	[0.128]
SC x Incumbent can run	0.0785***	0.0785***	0.0871***	0.0545*	-0.0466
	[0.027]	[0.027]	[0.029]	[0.031]	[0.155]
Incumbent can run	-0.0187	-0.0187	0.0403	-0.0548	0.4976
	[0.026]	[0.026]	[0.438]	[0.457]	[0.689]
Population			-0.0011	-0.0005	0.0019*
			[0.001]	[0.001]	[0.001]
share_ch			-2.7486*	-2.2803	3.0470
			[1.530]	[1.607]	[2.079]
share_el			1.5460**	1.4147*	3.9383***
			[0.750]	[0.770]	[0.998]
Income			0.0593***	0.0514***	-0.0632***
			[0.010]	[0.010]	[0.018]
Grants			-0.0000	-0.0000	0.0003
			[0.000]	[0.000]	[0.000]
Majority Coalition Left				0.4342***	0.1726**
				[0.070]	[0.084]
Majority Coalition Right				0.1604**	0.3890***
				[0.074]	[0.086]
No term limit				0.0027	0.4721***
				[0.053]	[0.077]
First past the post				-0.4634***	-0.3354***
				[0.096]	[0.103]
Incumbent Female				0.1515***	0.1142***
				[0.038]	[0.044]
Incumbent Age				0.0023	-0.0125
				[0.011]	[0.013]
Incumbent Degree				0.0584	0.0225
				[0.051]	[0.059]
Incumbent Work Experience				-0.0001	0.0065
				[0.038]	[0.043]
Observations	41,592	41,592	40,372	37,878	32,857
R-squared	0.192	0.192	0.204	0.202	0.091
Controls	NO	NO	YES	YES	YES

Prediction 1. Dep Var. Municipal Performance
Adjusted Social Capital. (mothers)

.	OLS	OLS	OLS	OLS
SC	0.3380***	0.3184***	0.2886***	0.2845***
	[0.025]	[0.031]	[0.033]	[0.034]
SC X Incumbent can run		0.0289	0.0766**	0.0676**
		[0.026]	[0.034]	[0.034]
Incumbent can run		0.0118	0.6335*	0.4294
		[0.019]	[0.325]	[0.337]
Population			0.0010	0.0005
			[0.001]	[0.001]
share_ch			10.1764***	7.8281***
			[1.163]	[1.182]
share_el			1.0725*	1.2155**
			[0.575]	[0.583]
Income			-0.0548***	-0.0553***
			[0.007]	[0.008]
Grants			-0.0014***	-0.0013***
			[0.000]	[0.000]
Majority Coalition Left				0.0509
				[0.052]
Majority Coalition Right				-0.0086
				[0.050]
No term limit				-0.1847***
				[0.038]
First past the post				-0.0646
				[0.068]
Incumbent Female				0.1126***
				[0.027]
Incumbent Age				0.0144*
				[0.008]
Incumbent Degree				0.1004***
				[0.036]
Incumbent Work Experience				-0.0338
				[0.027]
Observations	35,308	35,308	34,869	32,857
R-squared	0.202	0.202	0.234	0.238
Controls	NO	NO	YES	YES

Prediction 1. Dep Var. Municipal Output

Adjusted Social Capital. (mothers)

.	OLS	OLS	OLS	OLS
SC	0.8258***	0.7478***	0.8249***	0.8353***
	[0.037]	[0.043]	[0.046]	[0.066]
SC X Incumbent can run		0.1138***	0.0687*	0.0323
		[0.035]	[0.040]	[0.081]
Incumbent can run		-0.0334	0.3250	0.1252
		[0.028]	[0.482]	[0.641]
Population			-0.0005	-0.0014
			[0.001]	[0.001]
share_ch			-0.0015	0.2228
			[1.674]	[1.783]
share_el			1.2792	1.4319
			[0.816]	[0.874]
Income			0.1121***	0.0913***
			[0.012]	[0.015]
Grants			-0.0002	-0.0002
			[0.000]	[0.000]
Majority Coalition Left				0.4192***
				[0.076]
Majority Coalition Right				0.1394*
				[0.077]
No term limit				-0.1373**
				[0.058]
First past the post				-0.2743***
				[0.097]
Incumbent Female				0.1778***
				[0.041]
Incumbent Age				-0.0025
				[0.012]
Incumbent Degree				0.1356**
				[0.055]
Incumbent Work Experience				-0.0312
				[0.040]
Observations	35,308	35,308	34,869	32,857
R-squared	0.195	0.195	0.206	0.207
Controls	NO	NO	YES	YES

Political Selection

> **Prediction 2.** If $s \leq s''$, the probability of the incumbent winning a second term election is strictly decreasing in both σ, the share of informed voters, and θ, the civic preference measure. If $s \geq s'$, it is independent of σ but decreasing in θ. If $s'' < s < s'$, then it is election is strictly decreasing in both σ and θ as long as $1 > \alpha\pi\delta$.

Prediction 2: Dep Var Incumbent Re-election

Standard social capital

.	OLS	IV mot	IV granny	St IV fat	IV adm	IV mot granny
SC	0.0170**	-0.0494**	-0.0486*	-0.0487**	-0.0458*	-0.0520**
	[0.007]	[0.025]	[0.025]	[0.024]	[0.023]	[0.024]
Population	0.0001	0	0	0	0	0
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
share_ch	-0.6854**	-1.1635***	-1.1578***	-1.1585***	-1.1376***	-1.1829***
	[0.306]	[0.406]	[0.407]	[0.405]	[0.400]	[0.409]
share_el	-0.1111	-0.2263	-0.2249	-0.2251	-0.22	-0.2309
	[0.205]	[0.207]	[0.207]	[0.206]	[0.205]	[0.205]
Income	0.0047	0.0126**	0.0125**	0.0125**	0.0121**	0.0129**
	[0.004]	[0.005]	[0.005]	[0.005]	[0.005]	[0.005]
Grants	0.0001**	0	0	0	0	0
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Property Tax	0	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Majority Coalition Left	0.1694***	0.1766***	0.1765***	0.1765***	0.1762***	0.1769***
	[0.024]	[0.024]	[0.024]	[0.024]	[0.024]	[0.024]
Majority Coalition Right	0.0980**	0.0988**	0.0988**	0.0988**	0.0987**	0.0988**
	[0.044]	[0.046]	[0.046]	[0.046]	[0.045]	[0.046]
No term limit	0.0665***	0.0462**	0.0464**	0.0464**	0.0473**	0.0454**
	[0.020]	[0.022]	[0.022]	[0.022]	[0.022]	[0.022]
First past the post	-0.1803***	-0.1857***	-0.1856***	-0.1856***	-0.1854***	-0.1859***
	[0.034]	[0.034]	[0.034]	[0.034]	[0.034]	[0.033]
Incumbent Female	-0.0737***	-0.0700***	-0.0701***	-0.0701***	-0.0702***	-0.0699***
	[0.024]	[0.026]	[0.025]	[0.026]	[0.026]	[0.026]
Incumbent Age	0.0147**	0.0145**	0.0145**	0.0145**	0.0145**	0.0145**
	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]	[0.006]
Incumbent Degree	-0.1069**	-0.0996**	-0.0997**	-0.0997**	-0.1000**	-0.0993**
	[0.045]	[0.046]	[0.046]	[0.046]	[0.046]	[0.046]
Incumbent Work Experience	0.0372*	0.0308	0.0308	0.0308	0.0311	0.0305
	[0.022]	[0.022]	[0.022]	[0.022]	[0.022]	[0.022]
Observations	5,818	5,818	5,818	5,818	5,818	5,818
Controls	yes	yes	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes	yes	yes
Reg dummies	yes	yes	yes	yes	yes	yes

Prediction 2: Dep Var Incumbent Party Re-election

Standard social capital

.	OLS	IV mot	IV granny	IV fat	IV adm	IV mot granny
SC	0.0014	-0.0438***	-0.0445***	-0.0409***	-0.0432***	-0.0382***
	[0.004]	[0.015]	[0.015]	[0.014]	[0.014]	[0.014]
Population	-0.0001	-0.0001*	-0.0001*	-0.0001*	-0.0001*	-0.0001*
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
share_ch	-0.0549	-0.3632	-0.3686	-0.3435	-0.3597	-0.3251
	[0.299]	[0.361]	[0.361]	[0.359]	[0.360]	[0.358]
share_el	-0.1003	-0.1594	-0.1605	-0.1556	-0.1588	-0.1521
	[0.126]	[0.122]	[0.122]	[0.123]	[0.122]	[0.123]
Income	-0.0029	0.0022	0.0023	0.0019	0.0021	0.0016
	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]	[0.003]
Grants	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Property Tax	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Majority Coalition Left	0.2508***	0.2592***	0.2593***	0.2586***	0.2591***	0.2581***
	[0.022]	[0.023]	[0.023]	[0.023]	[0.023]	[0.023]
Majority Coalition Right	0.1748***	0.1757***	0.1757***	0.1756***	0.1757***	0.1756***
	[0.028]	[0.030]	[0.030]	[0.029]	[0.030]	[0.029]
No term limit	0.0723***	0.0599***	0.0597***	0.0607***	0.0600***	0.0614***
	[0.013]	[0.015]	[0.015]	[0.015]	[0.015]	[0.014]
First past the post	-0.2107***	-0.2187***	-0.2189***	-0.2182***	-0.2186***	-0.2177***
	[0.020]	[0.023]	[0.023]	[0.023]	[0.023]	[0.022]
Incumbent Female	-0.1071***	-0.1057***	-0.1057***	-0.1058***	-0.1057***	-0.1058***
	[0.017]	[0.017]	[0.017]	[0.017]	[0.017]	[0.017]
Incumbent Age	0.0284***	0.0284***	0.0284***	0.0284***	0.0284***	0.0284***
	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]
Incumbent Degree	0.0074	0.0111	0.0112	0.0109	0.0111	0.0106
	[0.021]	[0.022]	[0.022]	[0.022]	[0.022]	[0.022]
Incumbent Work Experience	0.0471***	0.0452***	0.0451***	0.0453***	0.0452***	0.0454***
	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]
Observations	14,509	14,509	14,509	14,509	14,509	14,509
R-squared	0.053	0.047	0.047	0.048	0.048	0.049
Controls	yes	yes	yes	yes	yes	yes
Year dummies	yes	yes	yes	yes	yes	yes
Reg dummies	yes	yes	yes	yes	yes	yes

Prediction 2: Dep Var Incumbent Re-election

Adjusted social capital

.	Granny	Mother	Father	Weighted Adm
SC	-0.0267**	-0.0276**	-0.0284**	-0.0266**
	[0.012]	[0.013]	[0.013]	[0.013]
Population	0.0000	0.0000	0.0000	0.0000
	[0.000]	[0.000]	[0.000]	[0.000]
share_ch	-0.9274***	-0.9310***	-0.9332***	-0.9272***
	[0.315]	[0.315]	[0.316]	[0.316]
share_el	-0.1605	-0.1608	-0.1582	-0.1582
	[0.200]	[0.200]	[0.200]	[0.200]
Income	0.0066	0.0066	0.0067	0.0067
	[0.004]	[0.004]	[0.004]	[0.004]
Grants	0.0001*	0.0001*	0.0001*	0.0001*
	[0.000]	[0.000]	[0.000]	[0.000]
Property Tax	-0.0000	-0.0000	-0.0000	-0.0000
	[0.000]	[0.000]	[0.000]	[0.000]
Majority Coalition Left	0.1747***	0.1748***	0.1749***	0.1748***
	[0.024]	[0.024]	[0.024]	[0.024]
Majority Coalition Right	0.0986**	0.0986**	0.0986**	0.0986**
	[0.044]	[0.044]	[0.044]	[0.044]
No term limit	0.0627***	0.0627***	0.0627***	0.0626***
	[0.020]	[0.020]	[0.020]	[0.020]
First past the post	-0.1857***	-0.1858***	-0.1858***	-0.1854***
	[0.034]	[0.034]	[0.034]	[0.034]
Incumbent Female	-0.0723***	-0.0723***	-0.0723***	-0.0724***
	[0.024]	[0.024]	[0.025]	[0.025]
Incumbent Age	0.0147**	0.0147**	0.0147**	0.0147**
	[0.006]	[0.006]	[0.006]	[0.006]
Incumbent Degree	-0.1050**	-0.1050**	-0.1050**	-0.1050**
	[0.046]	[0.046]	[0.046]	[0.046]
Incumbent Work Experience	0.0365*	0.0365*	0.0365*	0.0364*
	[0.022]	[0.022]	[0.022]	[0.022]
Observations	5,818	5,818	5,818	5,818
R-squared	0.037	0.037	0.037	0.037
Controls	yes	yes	yes	yes

Prediction 2: Dep Var Incumbent Party Re-election

Adjusted social capital

VARIABLES	Granny	Mother	Father	Weighted ST
SC	-0.0254***	-0.0254***	-0.0246***	-0.0261***
	[0.009]	[0.009]	[0.009]	[0.009]
Population	-0.0001	-0.0001	-0.0001	-0.0001
	[0.000]	[0.000]	[0.000]	[0.000]
share_ch	-0.1699	-0.1696	-0.1655	-0.1726
	[0.309]	[0.309]	[0.309]	[0.309]
share_el	-0.1171	-0.1168	-0.1139	-0.1153
	[0.123]	[0.123]	[0.123]	[0.123]
Income	-0.0029	-0.0029	-0.0028	-0.0028
	[0.002]	[0.002]	[0.002]	[0.002]
Grants	0.0000	0.0000	0.0000	0.0000
	[0.000]	[0.000]	[0.000]	[0.000]
Property Tax	0.0000	0.0000	0.0000	0.0000
	[0.000]	[0.000]	[0.000]	[0.000]
Majority Coalition Left	0.2542***	0.2542***	0.2541***	0.2544***
	[0.023]	[0.023]	[0.023]	[0.023]
Majority Coalition Right	0.1756***	0.1756***	0.1755***	0.1756***
	[0.028]	[0.028]	[0.028]	[0.028]
No term limit	0.0734***	0.0733***	0.0733***	0.0733***
	[0.013]	[0.013]	[0.013]	[0.013]
First past the post	-0.2156***	-0.2156***	-0.2154***	-0.2155***
	[0.021]	[0.021]	[0.021]	[0.021]
Incumbent Female	-0.1070***	-0.1070***	-0.1070***	-0.1070***
	[0.017]	[0.017]	[0.017]	[0.017]
Incumbent Age	0.0283***	0.0283***	0.0283***	0.0283***
	[0.004]	[0.004]	[0.004]	[0.004]
Incumbent Degree	0.0075	0.0075	0.0075	0.0075
	[0.021]	[0.021]	[0.021]	[0.021]
Incumbent Work Experience	0.0480***	0.0480***	0.0479***	0.0480***
	[0.014]	[0.014]	[0.014]	[0.014]
Observations	14,509	14,509	14,509	14,509
R-squared	0.053	0.053	0.053	0.053
Controls	yes	yes	yes	yes

Prediction 3

Prediction 3. *The share of the vote for the incumbent, x, is increasing in performance e, and the effect of performance on vote share, $\beta\sigma\Delta u(\theta)$, is increasing in in both σ, the share of informed voters, and θ, the civic preference measure.*

Prediction 3. Dep. Var. Incumbent votes share variation

Adjusted Social Capital	[1]	[2]	[3]	[4]	[5]	[6]
Performance	-0.012	-0.008	-0.022	-0.011	-0.013	-0.027
	[0.403]	[0.404]	[0.409]	[0.403]	[0.409]	[0.414]
High SK X Performance	0.154	0.137	0.161	0.154	0.158	0.185
	[0.547]*	[0.559]*	[0.563]*	[0.553]*	[0.562]*	[0.569]**
High SK	-0.119	-0.013	-0.104	-0.174	0.140	0.026
	[6.407]	[18.357]	[18.246]	[6.860]	[18.448]	[18.828]
Grants			-0.016			0.000
			[0.008]			[0.008]
Property Tax			-0.075			-0.083
			[0.006]*			[0.006]*
Majority Coalition Left				-0.011		-0.014
				[2.579]		[2.821]
Majority Coalition Right				-0.109		-0.112
				[2.397]***		[2.414]***
No term limit				0.019		0.037
				[1.733]		[1.975]
First past the post				-0.048		-0.053
				[1.677]**		[1.826]**
Incumbent Female					-0.009	-0.011
					[1.461]	[1.460]
Incumbent Age					-0.059	-0.036
					[0.451]	[0.449]
Incumbent Degree					-0.010	-0.002
					[2.145]	[2.176]
Incumbent Work Experience					0.027	0.026
					[1.393]	[1.393]
R^2	0.02	0.03	0.03	0.03	0.04	0.05
N	2,039	2,000	2,000	2,039	1,902	1,902
Municipal Controls	NO	YES	YES	YES	NO	NO
Other Controls	NO	NO	Fiscal	Political	Incumbent	All
Year Dummies	YES	YES	YES	YES	YES	YES
Regional Dummies	YES	YES	YES	YES	YES	YES

Thank you !!!!

Examples of rubbish collection in Italy