Demand for Regulation as a Function of Government Efficiency and Social Capital. Empirical Analysis

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Motivation

- **Regulation and the quality of governance**
  - Why do people in countries with corrupt government prefer high state regulation?
  - From the rational point of view relationship should be negative: more corruption - less government
- **Social capital and development**
  - Social capital is correlated with various characteristics of socio-economic development
  - However, the transmission channels between micro social capital and macro indicators are ambiguous

Idea

Demand for regulation as a transmission channel between social capital and development

- Social capital - society's ability to organize and cooperate to ensure optimal public good production
- When social capital is low, lack of self-organization pushes people to call for state intervention
- State as a monopolist would later take all surplus in the form of corruption

To prove the logic we study interplay between demand for state regulation, quality of government and social capital

Literature I

- **Putnam(1993)**: comparison btw North and South regions of Italy. South regions - high demand for state regulation and poor government performance, and vice versa in the North. Difference is attributed to difference in social capital stock.
- **Pinotti(2008)**: high regulation can be an optimal response to the lack of honest people in economy. On cross-country sample a state intervention is not correlated with the level of corruption and shadow economy if one controls for trust
- **Di Tella and McCulloch (2009)**: if regulation is low and business is corrupt, people would rationally support high regulation. This can be traced from electoral statistics through voting for left parties.
  - Higher level of corruption predicts support for left parties in the next electoral period
  - Individual demand for regulation is correlated with a respondent's perception of corruption

Literature II

- **Aghion et.al(2010)**: model that demonstrates interplay between trust, demand for regulation and corruption
  - Two equilibria: one with honest people, high trust and low regulation and the second with other way around (Russia in a bad one)
  - Some empirical evidence is provided on case of transition economies
- **Boyko et.al(1993)**: during privatization period Russian workers gave all power to managers instead of controlling them
- **Denisova et.al.(2010)**: correlation between demand for regulation and trust and between corruption and trust on Russian poll data.
  - Demand for regulation is measured by demand for state regulation of prices and demand for direct government intervention in labor market, healthcare and road construction
  - Trust is measured as trust to business, courts, government and average trust to people in region.

Model(Idea) I

- Management and control of the public good production is public good itself
- It can be entrusted either to state or to society (self-governance)
- Self-governance suffers from cooperation and free-rider problems (and measured by social capital)
- State governance inefficient because of lack of information and corruption (and measured by quality of state governance)
- **Timing:**
  - First, society chooses to what extent government should be involved
  - Next, using its monopolistic power state collects rents on charged areas
- Draft of a model - individuals find an optimal size of community group, that can efficiently operate
- Government which coordinates between groups maximizes its rents. Equilibrium follows which we study in the second step

Hypothesis

First step /people determine optimal level of regulation

Hypothesis

Individual demand for state control depends on interplay between quality of bureaucracy and social capital (proxy for "quality of self-management")

second step /state uses monopoly power

Hypothesis

In equilibrium societies with low social capital is characterized with higher demand for regulation and worse situation

Core Data Base

Opinion poll (Center for strategic research "Rosgosstrakh")

- 6.5K respondents from 66 Russian cities
- 37 big cities - regional capitals or second city in the region
- 29 towns of Moscow region where it is easier to ensure that institutional conditions are the same

Individual Level: empirical strategy

$$DemandForRegulation_i = const + \beta QualityOfBureaucracy_i$$

$$+\gamma SocialCapital_i + \zeta_k IndivControls_{ki} + \epsilon_i$$

We expect demand for regulation to depend positively on quality of bureaucracy and negatively on social capital

- Demand for regulation: Do you think there is need to increase government control over economics and society or not?
- Quality of bureaucracy: Do you think that bureaucrats do much to increase welfare of the citizens?
- Social capital: Do you think people in your city are initiative? Are people in your city ready to unit to solve public common problems?
- IndivControls - age, sex, welfare, education, satisfaction with life

Individual Level: Results

Demand for regulation and quality of bureaucracy and social capital (probit model)

VARIABLES	(1)	(2)	(3)	(4)	(5)
bur_quality	0.0196		0.0398**	0.000210	0.00459
	(0.0187)		(0.0198)	(0.0275)	(0.0281)
citizen_initiative		-0.0907***	-0.0990***	-0.158***	-0.156***
		(0.0235)	(0.0240)	(0.0371)	(0.0377)
bur_quality x citizen_initiative				0.0473**	0.0492**
				(0.0231)	(0.0234)
Individual characteristics	YES	YES	YES	YES	YES
City fixed effects	NO	NO	NO	NO	YES
Observations	5,658	5,386	5,245	5,245	5,245
Pseudo R-squared	0.0220	0.0233	0.0250	0.0256	0.0360

- Demand for regulation does not depend on quality of governance if the quality of self-governance (social capital) isn't taken into account
- Increase of social capital and decrease of quality of governance leads to greater demand for regulation
- The size of bureaucratic quality effect depends on positively on the social capital stock.

Aggregate Level: Liberal values index I

We use electoral statistics as a proxy for demand for regulation in Russia

- Clear distinction between "left" and "right" parties
- Voting is not for parties or programs but for leaders (strong khozyaistvenniks vs reformators)
- Persistance between electoral cycles - 1995, 1999, 2007 (2003 is to be added)
- Left: Communist party in 1995; "United Russia" in 2007
- Right: Yabloko in 1995; Yabloko, SPS in 1999 and 2007
- Factor analysis to prove these hypothesis
- City's Liberal values index as a result

Aggregate Level: Liberal values index II

Variable	Factor1	Factor2	Factor3	Uniqueness
el95_kprf	-0.67	0.09	0.42	0.37
el99_kprf	-0.62	0.41	0.17	0.42
el07_kprf	0.12	0.75	0.07	0.41
el95_yabl	0.68	-0.15	0.35	0.40
el99_yabl	0.65	-0.23	0.17	0.50
el07_yabl	0.83	0.16	0.31	0.19
el99_sps	0.54	-0.05	-0.25	0.64
el07_sps	0.84	0.03	0.01	0.29
el07_edro	-0.51	-0.68	0.20	0.25

- First factor is easily interpreted as liberal values (or inverse demand for "strong hand")
- Highly negatively correlated with Communist votes in 1995 and Putin's party votes in 2007
- Highly positively correlated with votes for liberal parties in every election cycle

Social capital and Liberal values index

Level of Analysis - city
Social capital is aggregated measure from the poll described above.
Two samples - big cities and towns of Moscow regions.
Regression:

$$LiberalValuesIndex_i = const + \gamma SocialCapital_i + \zeta_k Controls_{ki} + \epsilon_i$$

Results: Big Cities

Liberal values and social capital in big cities

VARIABLES	1	2	3
citizen_initiative	2.682**	2.422**	
	(1.123)	(0.958)	
willingness to unit			2.202
			(1.368)
stud_number_pc		7.645	8.4
		(5.857)	(6.629)
Controls	YES	YES	YES
Observations	34	34	34
R-squared	0.546	0.585	0.546

Results: Moscow region

Liberal values and social capital in towns of Moscow region

VARIABLES	1	2	3	4	5
citizen_initiative	1.709***	1.113*	0.803	0.976**	0.717
	(0.603)	(0.625)	(0.550)	(0.403)	(0.508)
lwage		1.282*	-0.0853	0.223	0.407
		(0.678)	(0.585)	(0.553)	(0.546)
dist_moscow			-0.0161***	-0.00877***	-0.00815***
			(0.004)	(0.003)	(0.003)
popul_nat_gr				0.137***	0.102*
				(0.048)	(0.050)
education					0.722*
					(0.347)
Constant	5.162	3.777	7.399	7.343	3.527
	(6.803)	(7.001)	(5.772)	(4.620)	(4.080)
Observations	28	28	28	28	28
R-squared	0.267	0.334	0.601	0.693	0.725

Social capital and cities' development

Level of Analysis - city.
Proxy for the development is an aggregated citizens' satisfaction with the situation in the city from the poll described above.
Two samples - big cities and towns of Moscow regions.
Regression:

$$CityDevelopment_i = const + \gamma SocialCapital_i + \zeta_k Controls_{ki} + \epsilon_i$$

Results:

Social capital and cities development for large cities and towns of Moscow region

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12
citizen_initiative	1.032***	0.845**	0.972**				0.23	0.23	0.07			
	(0.338)	(0.354)	(0.352)				(0.204)	(0.192)	(0.244)			
willingness to unit				0.828**	0.59	0.720*				-0.19	-0.21	-0.33
				(0.353)	(0.369)	(0.369)				(0.324)	(0.327)	(0.322)
welfare		0.48	0.21		0.74	0.47		0.28	0.39		0.31	0.45
		(0.536)	(0.467)		(0.529)	(0.496)		(0.497)	(0.464)		(0.501)	(0.466)
ind_welfare			0.02			0.03						
			(0.042)			(0.045)						
bus_welfare			0.0744**			0.0593*						
			(0.035)			(0.030)						
lwage									0.33			0.426*
									-0.24			-0.24
Constant	1.17	-0.65	1.70	-0.44	-2.77	-1.09	0.28	-0.99	-1.88	0.78	-0.56	-1.49
	(1.811)	(3.066)	(3.222)	(2.120)	(3.171)	(3.325)	(1.800)	(2.363)	(2.236)	(2.012)	(2.604)	(2.484)
Observations	37	37	34	37	37	34	29	29	29	29	29	29
R-squared	0.21	0.233	0.301	0.115	0.176	0.23	0.1	0.118	0.163	0.091	0.112	0.2

There is significant correlation for big cities. For Moscow region cities correlation is not so high