

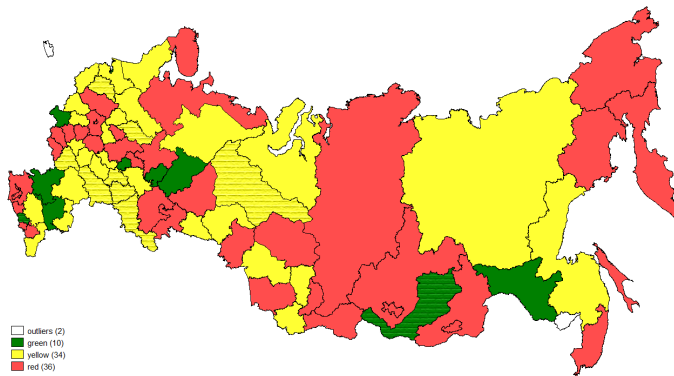
To Tax and How to Tax: Explaining Fiscal Policy Towards Investment in Russian Regions

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Reform of Chapter 25 of the Tax Code (2002)



Overview

Two Questions:

1. Under what conditions did regions cut taxes on investment?
2. Under what conditions did regions implement a universal or discriminatory tax cut?

Findings:

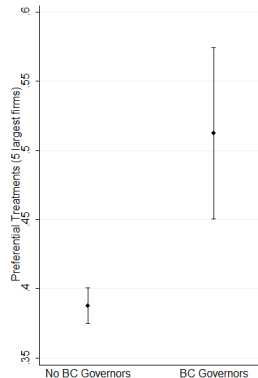
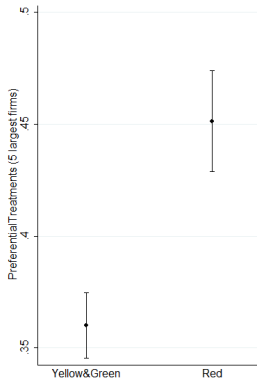
- ▶ Governors with business connections were *less* likely to cut taxes
- ▶ Market structure affected the choice between a universal or a discriminatory tax cut
- ▶ Weak evidence of diffusion among regions

Theory

Set Up

- ▶ Two-stage model:
 1. To cut or not to cut?
 2. Universal or discriminatory?
- ▶ Regulatory capture and leader survival
- ▶ 3 actors: ruler, vested interests (large corporations), outsider interests (small firms)
- ▶ Intuition: the closer the ruler to vested interests, the more discriminatory the tax policy

Why do Governors with Business Connections Run for Office?

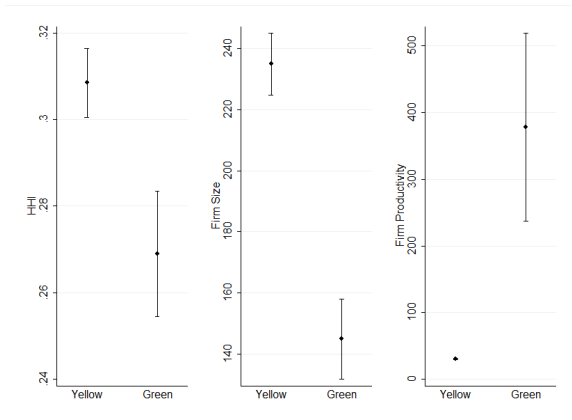


First Stage: To cut or not to cut?

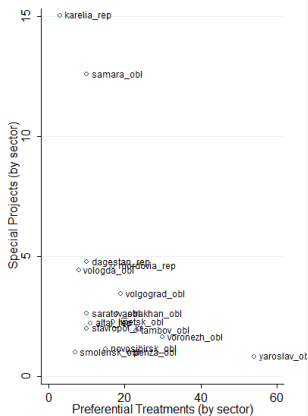
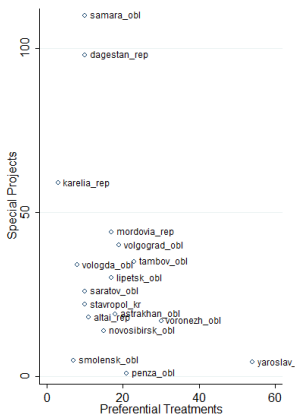
Hypothesis & Corollaries

1. **HP1:** Where ruler=vested interests (i.e. business connected governor) → no tax cut
 - ▶ **Corollary:** The effect of a business connected governor is conditional on market concentration

Who Benefits from a Tax Cut?



Special Projects vs. Preferential Treatments



Second Stage: Which Regions Implement a Discriminatory Tax Cut?

Hypothesis & Corollaries

1. **HP2:** Where firms are large and market concentration is high → discriminatory tax cut (yellow regions)
2. **HP3:** Where firms are non-competitive → discriminatory tax cut (yellow regions)

Main Variables

Dependent variables

- ▶ Dummy for yellow and green (first stage)
- ▶ Dummy for yellow (second stage)

Independent variables

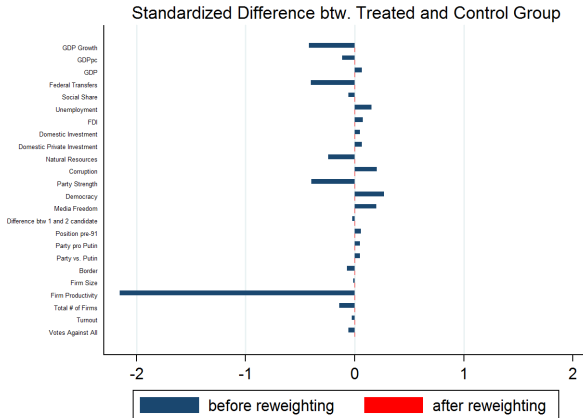
- ▶ Dummies for business connected governor (original data and Gehlbach et al. 2010)
- ▶ HHI, size, and productivity (Orbis, 2002 data)

Control Variables

Baseline Models

- ▶ First stage:
 - ▶ Spatial term for competitive diffusion
 - ▶ Preferential treatments (Slinko et al. 2005)
 - ▶ GRP_{pc}, GRP growth, federal transfers
- ▶ Second stage:
 - ▶ Spatial term for competitive diffusion
 - ▶ GRP_{pc} and GRP growth

Balancing on the Treatment, Business Connected Governor



Econometric Strategy

Case Selection

- ▶ Cross-sectional analysis: 79 regions in the first stage and 44 in the second stage
- ▶ TSCS: 79 regions, 2003-04 & 2005-08

Model Specification

- ▶ HeckProbit
- ▶ Bayesian spatial regression model: diffuse priors, 1100 draws

Main Findings (Business Connected Governor, Gehlbach et al. 2010)

	<i>Cross – section</i>		<i>Cross – section</i>		2003-04		SAR	
	To Cut?	Yellow?	To Cut?	Yellow?	To Cut?	Yellow?	To Cut?	Yellow?
Bus. Connect. Gov.	-*		-*		-*		-*	
PTs	-*		-*		-*		-*	
HHI		+		+		+		+
Firm Size		+*		+*		+*		+*
Firm Productivity		-*		-*		-*		-*
ρ							-	-
Balancing	no	no	yes	yes	no	no	no	no
Correctly Predicted	$\frac{42}{44}$	$\frac{33}{34}$	$\frac{42}{44}$	$\frac{33}{34}$	$\frac{42}{44}$	$\frac{33}{34}$	$\frac{42}{44}$	$\frac{33}{34}$

Table: * if (at least) $p < .1$

Vyacheslav Shtyrov: Yakutia



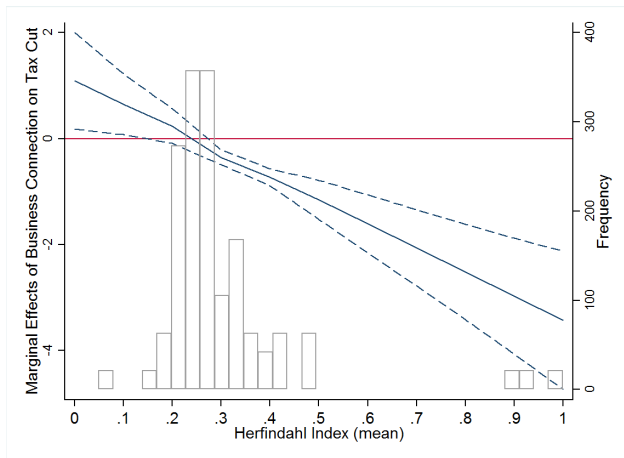
- ▶ Favored big Russian businesses (Surgutneftegaz and Myechel)
- ▶ Serious conflict with local elites
- ▶ Resigned two years before the end of his term
- ▶ “The Kremlin’s agreement to withdraw a loyal governor shows that in the case of important and powerful regions, Moscow is obliged to consider the interests of the local elites” (Centre for Eastern Studies, 2010)

Main Findings (Business Connected Governor, original data)

	<i>Cross – section</i>		<i>Cross – section</i>		2003-04		SAR	
	To Cut?	Yellow?	To Cut?	Yellow?	To Cut?	Yellow?	To Cut?	Yellow?
Bus. Connect. Gov.	-*		-*		-*		-*	
PTs	-		-		-		-	
HHI		+		+		+		+
Firm Size		+*		+*		+*		+*
Firm Productivity		-*		-*		-*		-*
ρ							-	-
Balancing	no	no	yes	yes	no	no	no	no
Correctly Predicted	$\frac{33}{44}$	$\frac{33}{34}$	$\frac{33}{44}$	$\frac{33}{34}$	$\frac{33}{44}$	$\frac{33}{34}$	$\frac{33}{44}$	$\frac{33}{34}$

Table: * if (at least) $p < .1$

Business Connected Governor Conditional on HHI



Additional Evidence

Further Tests and Model Specifications

1. Business Connected Governor is not statistically significant in the 2005-08 period
2. Governors who hold lower-level positions are *not less likely* to cut taxes
3. Governors who did not cut taxes are more likely to return to high-level positions in the firm after they leave office
4. SPs are negatively correlated with size/market concentration and positively correlated with productivity
5. Strategic probit (Signorino, 1999)

Conclusion

Contributions of the Research

- ▶ Explores the effects of personal business connections on policy outcomes
- ▶ Furthers the research agenda on the politics of investment promotion and policy effectiveness
- ▶ Generalizes to other developing and transition countries

Next Steps

- ▶ Connect governors to treatment of specific firms
- ▶ Conduct micro-level analysis of capture in yellow regions (detailed, original dataset of individual projects)

Many thanks!

Regional Laws To Cut Tax (Green Regions)

Green	Law
Amur Oblast	Law of November 28, 2003 No. 263-OZ
Bryansk Oblast	Law of November 10, 2003 No. 68-3
Chuvash Republic	Law of May 25, 2003 No. 15
Republic of Kalmykia	Law of July 9, 2003 No. 340-II-Z
Perm Krai	Law of October 31, 2003 No. 1053-212
Rostov Oblast	Law of November 27, 2003 No. 41-ZS
Udmurt Republic	Law of March 3, 2003 No. 8-PZ
Republic of Buryatia	Law of November 27, 2004 No. 937-III
Kabardino-Balkar Republic	Law of January 5, 2005 No. 5-RZ
St. Petersburg	Law of December 16, 2004 No. 620-88

Independent Variables (Second Stage)

From Firm-level Data to Region-level Data

1. We download from Orbis the top 500 or 25 percent of companies for each region (2002 data)
2. We calculate the average HHI, firm size, and firm productivity for each 4-digit product (NACE Rev. 2 Core code)
 - ▶ for instance, 'Growing of non-perennial crops' \neq 'Growing of cereals, leguminous crops and oil seeds' \neq 'Rice'
3. We take the average value across these products (excluding those with a mean equal to zero)

Spatial term for Competitive Diffusion

Operationalization

- ▶ Connectivity matrices:
 - ▶ correlates each pair of regions on the basis of the volume of direct investment into 17 industries
 - ▶ levels of infrastructure and capital endowments
 - ▶ shares of GRP contributed by different sectors
- ▶ Moran Index: statistically significant spatial correlation in residuals

Mikhail Lapshin: Altai Republic



- ▶ Leader of the Agrarian Party of Russia
- ▶ Opposed Putin (not nominated in 2005)
- ▶ Lower taxes → more investment → independence from federal government (Malesky, 2008)

Viktor Shershunov: Kostroma Oblast



- ▶ Communist Party
- ▶ Strong support in rural areas
- ▶ Special projects in the agricultural sector

Regions Not Correctly Predicted

Regions	Yellow	Green	HHI
Kabardin Republic	1	0	.25
Kaluga Oblast	0	1	.22
Khabarovsk Krai	0	1	.26
Orkug	0	1	.26
Orenburg Oblast	0	1	.19
Perm Krai	1	0	.25
Pskov Oblast	0	1	.27
Tambov Oblast	0	1	.26
Tyumen Oblast	0	1	.27
Volgograd Oblast	0	1	.27
Vologda Oblast	0	1	.28

'Business Connected Governor' Conditional on Weak Institutions

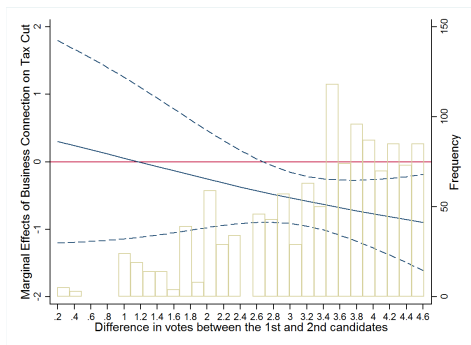


Figure: Weak institutions: vote gap btw 1st and 2nd gubernatorial candidates

Firm Size Conditional on Weak Institutions

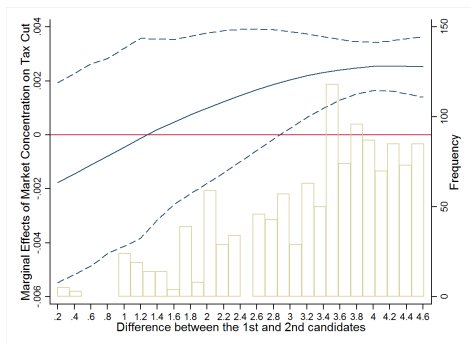
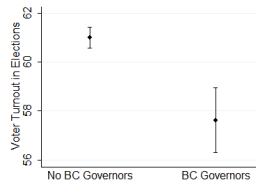
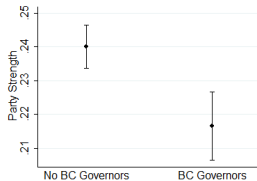
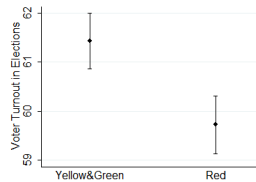
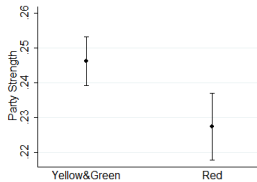
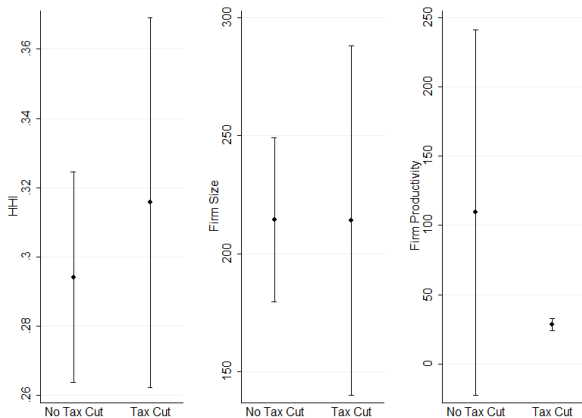


Figure: Weak institutions: vote gap btw 1st and 2nd gubernatorial candidates

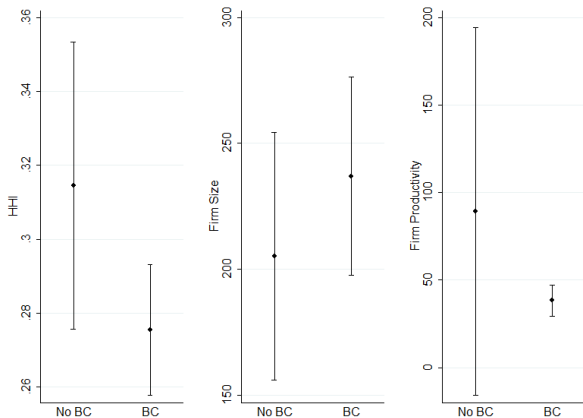
Where Governors with Business Connections Run for Office?



First Stage: Market Structure



First Stage: Market Structure



Predicted Values vs. Actual Values

