

Online Appendix for the paper “Judicial Presence and Rent Extraction”

Stephan Litschig and Yves Zamboni

August 7, 2015

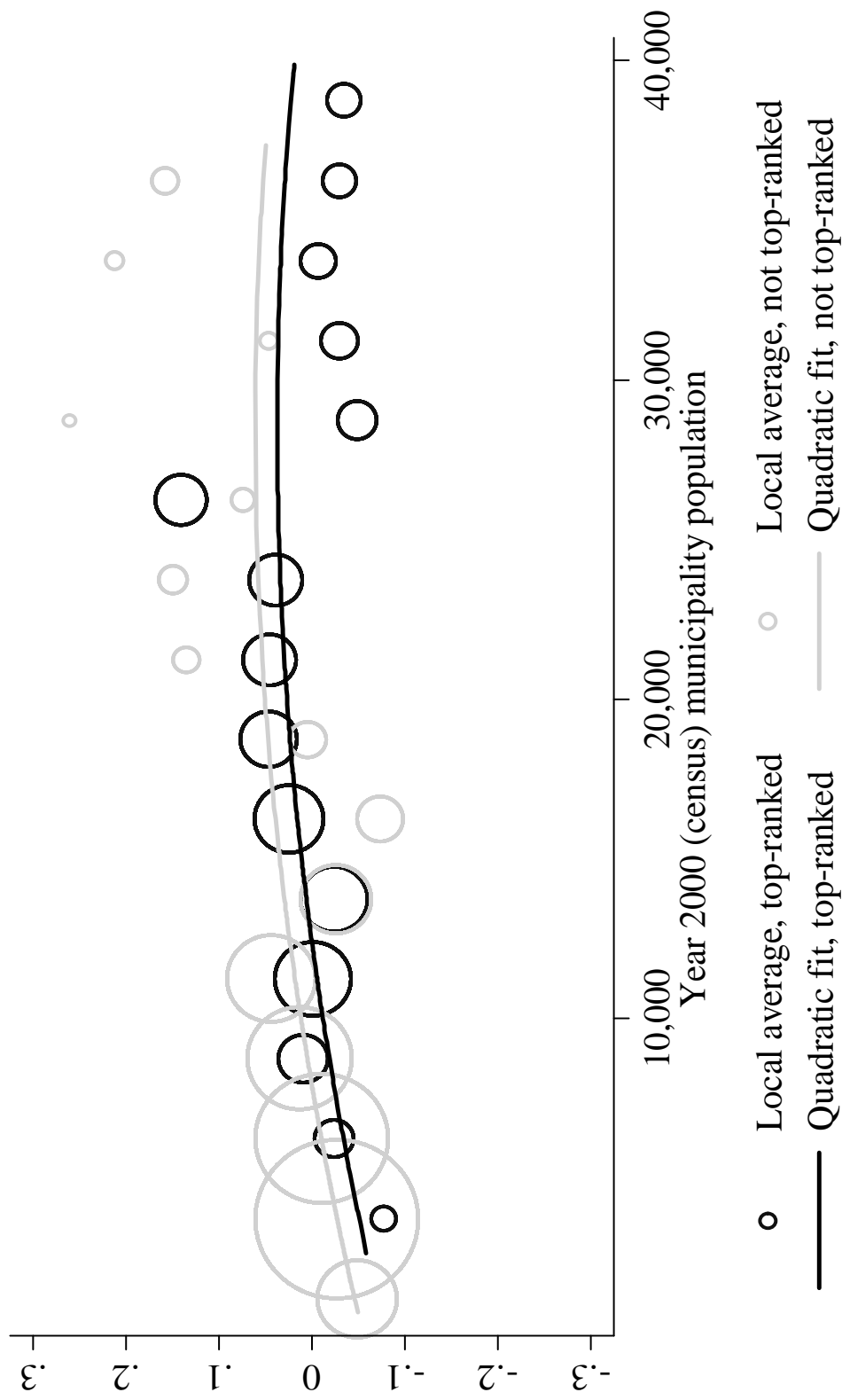
List of Figures

1	Figure 1: Impact on the share of inspections with management irregularities, reduced form	3
---	---	---

List of Tables

1	Table 1: Impact on management or procedural irregularities per inspection with irregularities	4
2	Table 2: Impact on the share of inspections with procedural irregularities	5
3	Table 3: Impact on the share of inspections with clear management irregularities	6
4	Table 4: Impact on the share of inspections with serious procedural irregularities	7
5	Table 5: Impact on the share of inspections with management or procedural irregularities, broader population support	8
6	Table 6: Impact on the share of inspections with management or procedural irregularities, excluding judiciary seats created between 1999 and 2005	9
7	Table 7: Impact on the share of inspections with management or procedural irregularities, rank based on 2001 population	10
8	Table 8: Impact on the share of inspections with management or procedural irregularities, 1997 population control	11
9	Table 9: Impact on the share of inspections with management irregularities, first-vs. second-term mayors	12

Figure 1: Impact on the share of inspections with management irregularities, reduced form



Notes: The dependent variable on the vertical axis is the share of inspections with at least one management irregularity in deviation from the state average. Each dot corresponds to the sample average of the dependent variable for a given judiciary-district-specific population rank (top or not top) based on official 2005 population and in a given bin. The size of each dot is proportional to the number of municipalities in a given bin. The bin width is 2,500.

Table 1: Impact on management or procedural irregularities per inspection with irregularities

Dependent variable: total irregularities / number of inspections with at least one irregularity; mean 3.05, std 1.28							
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic	
Judiciary seat (0/1)	-0.065 (0.201)	-0.009 (0.222)	-0.013 (0.223)	0.259 (0.238)	-0.051 (0.218)	-0.034 (0.214)	0.193 (0.232)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 0.91 (0.54)	N	N	Y 1.00 (0.45)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 465 (0.00)	N	Y 53 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.58 (0.81)	N 0.68 (0.73)
Observations	721	721	721	721	721	713	721
R-squared	0.182	0.184	0.186	0.206	0.239	0.191	0.259

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 2: Impact on the share of inspections with procedural irregularities

Dependent variable: share of inspections with at least one procedural irregularity; mean 0.49, std 0.20						
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic
Judiciary seat (0/1)	-0.027 (0.028)	-0.015 (0.029)	-0.016 (0.029)	0.006 (0.033)	-0.018 (0.029)	0.004 (0.034)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 1.37 (0.18)	N	Y 1.78 (0.05)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 4.35 (0.00)	Y 3.98 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.97 (0.46)
Observations	721	721	721	721	721	713
R-squared	0.149	0.154	0.156	0.179	0.184	0.213

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 3: Impact on the share of inspections with clear management irregularities

Dependent variable: share of inspections with at least one clear management irregularity; mean 0.38, std 0.16							
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic	
Judiciary seat (0/1)	-0.026 (0.021)	-0.042* (0.022)	-0.042* (0.022)	-0.045* (0.026)	-0.042* (0.022)	-0.047* (0.026)	-0.045* (0.027)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 0.89 (0.55)	N	Y 0.94 (0.51)	Y 1.02 (0.43)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 92.1 (0.00)	Y 6.24 (0.00)	Y 4.74 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.81 (0.60)	Y 1.07 (0.38)
Observations	721	721	721	721	721	721	713
R-squared	0.151	0.155	0.157	0.170	0.176	0.190	0.206

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 4: Impact on the share of inspections with serious procedural irregularities

Dependent variable: share of inspections with at least one serious procedural irregularity; mean 0.52, std 0.20							
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic	
Judiciary seat (0/1)	-0.041 (0.029)	-0.030 (0.029)	-0.031 (0.029)	-0.006 (0.034)	-0.033 (0.030)	-0.007 (0.034)	-0.012 (0.035)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 1.43 (0.15)	N	Y 1.90 (0.03)	Y 1.82 (0.04)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 6.54 (0.00)	Y 3.46 (0.00)	Y 2.80 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.99 (0.44)	Y 1.23 (0.27)
Observations	721	721	721	721	721	721	713
R-squared	0.143	0.148	0.150	0.176	0.179	0.212	0.184

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 5: Impact on the share of inspections with management or procedural irregularities, broader population support

Dependent variable: share of inspections with at least one irregularity; mean 0.67, std 0.19

Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic	Cubic	
Judiciary seat (0/1)	-0.044** (0.022)	-0.047** (0.024)	-0.049** (0.024)	-0.054* (0.029)	-0.053** (0.025)	-0.049** (0.024)	-0.058* (0.030)	-0.061** (0.030)
Municipality characteristics F-statistic (p-value)	N	N	N	Y	N	N	Y	Y
				0.65 (0.80)			1.03 (0.41)	0.97 (0.48)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y	N	Y	Y
					27.4 (0.00)		3.75 (0.00)	2.93 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y	N	Y
						0.56 (0.83)		0.70 (0.70)
Observations	739	739	739	739	739	731	739	731
R-squared	0.193	0.192	0.196	0.205	0.223	0.203	0.237	0.242

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 51,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 6: Impact on the share of inspections with management or procedural irregularities, excluding judiciary seats created between 1999 and 2005

Dependent variable: share of inspections with at least one irregularity; mean: 0.67, std: 0.19						
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic
Judiciary seat (0/1)	-0.038 (0.025)	-0.053** (0.026)	-0.053** (0.026)	-0.055** (0.032)	-0.055** (0.027)	-0.057* (0.032)
Municipality characteristics F-statistic (p-value)	N	N	N	Y	N	Y
				0.58 (0.86)		0.86 (0.58)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y	Y
					2.20 (0.00)	2.25 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	N
						0.52 (0.86)
Observations	696	696	696	696	696	689
R-squared	0.192	0.191	0.191	0.200	0.217	0.230

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. In this specification the sample is further restricted to municipalities that did not change their judicial seat status between 1999 and 2005. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 7: Impact on the share of inspections with management or procedural irregularities, rank based on 2001 population

Dependent variable: share of inspections with at least one irregularity; mean 0.67, std 0.19

Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic	Cubic
Judiciary seat (0/1)	-0.038 (0.023)	-0.051** (0.024)	-0.051** (0.024)	-0.055* (0.029)	-0.054** (0.025)	-0.049** (0.025)	-0.058* (0.030)
Municipality characteristics F-statistic (p-value)	N	N	N	Y	N	N	Y
				0.58 (0.86)			0.88 (0.56)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y	N	Y
					22.7 (0.00)		3.61 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y	N
						0.50 (0.87)	0.63 (0.77)
Observations	721	721	721	721	721	713	713
R-squared	0.193	0.191	0.191	0.201	0.217	0.197	0.232

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population based on 2001 population. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 8: Impact on the share of inspections with management or procedural irregularities, 1997 population control

Dependent variable: share of inspections with at least one irregularity; mean 0.67, std 0.19								
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic		
Judiciary seat (0/1)	-0.042* (0.023)	-0.055** (0.025)	-0.055** (0.025)	-0.056* (0.029)	-0.057** (0.026)	-0.054** (0.025)	-0.059* (0.030)	-0.062** (0.031)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 0.60 (0.84)	N	N	Y 0.89 (0.56)	Y 0.85 (0.60)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 28.7 (0.00)	N	Y 3.96 (0.00)	Y 2.96 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.57 (0.82)	N	Y 0.70 (0.71)
Observations	725	725	725	725	725	717	725	717
R-squared	0.190	0.190	0.190	0.200	0.217	0.195	0.231	0.235

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. Population control terms are measured in 1997. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.

Table 9: Impact on the share of inspections with management irregularities, first- vs. second-term mayors

Dependent variable: share of inspections with at least one management irregularity; mean 0.44, std 0.16								
Population specification:	Linear	Quadratic	Cubic	Cubic	Cubic	Cubic		
Judiciary seat (0/1)	0.011 (0.033)	-0.002 (0.035)	-0.001 (0.035)	0.023 (0.039)	0.014 (0.035)	-0.005 (0.034)	0.038 (0.041)	0.033 (0.040)
Judiciary seat (0/1) × First-term mayor (0/1)	-0.067 (0.043)	-0.071 (0.045)	-0.072 (0.045)	-0.112** (0.052)	-0.088* (0.045)	-0.066 (0.045)	-0.132** (0.054)	-0.128** (0.054)
F-statistic for $H_0: \beta_1 + \beta_2 = 0$ (p-value)	4.00 (0.05)	6.58 (0.01)	6.67 (0.01)	6.79 (0.01)	6.30 (0.01)	5.95 (0.02)	7.09 (0.01)	6.98 (0.01)
Municipality characteristics F-statistic (p-value)	N	N	N	Y 1.37 (0.12)	N	N	Y 1.25 (0.19)	Y 1.22 (0.21)
Mayor's party affiliation F-statistic (p-value)	N	N	N	N	Y 43.7 (0.00)	N	Y 4.26 (0.00)	Y 3.16 (0.00)
Mayor's characteristics F-statistic (p-value)	N	N	N	N	N	Y 0.88 (0.60)	N	Y 0.81 (0.65)
Observations	721	721	721	721	721	713	721	713
R-squared	0.197	0.200	0.201	0.232	0.244	0.220	0.273	0.289

Notes: IV estimations. The instrument for judiciary seat is the indicator for judiciary-district-specific maximum population. β_1 is the coefficient on judiciary seat among second-term mayors. β_2 is the difference between coefficients on judiciary seat in the first- and second-term mayor samples. Municipality characteristics, all measured in 2000: judiciary district population, income per capita, average years of schooling, urbanization, poverty headcount ratio, povertygap, gini coefficient, radio station, internet access, electorate and voter turnout, distance to state capital. Mayor's party affiliation are a set of dummy variables for each political party. Mayor's characteristics: first-term mayor indicator, education level indicators, male dummy and age. F-statistics test the joint null hypotheses that none of the municipality characteristics / party affiliation dummies / mayor's characteristics predict the outcome variable. All specifications include state fixed effects. The sample consists of municipalities audited through round 21, excluding single-municipality judiciary districts, as well as municipalities with population above 40,000. Robust standard errors are given in parentheses. *, **, and *** indicate significance at 10 percent, 5 percent and 1 percent levels respectively.